Student Learning Outcomes Assessment Committee

(formerly the Academic Outcomes Assessment Task Force)

All Colleges Assessment Report

March 10, 2009

Table of Contents

Student Learning Outcomes Assessment Committee Report 3

2008/2009 Task Force Members 3

Organization of the Report 3

Historical Context 3

Student Learning Outcomes Assessment Standard 14 Charges 4

Learning Assessment at RIT—Responses to the Charge Questions 5

- Charge Question Part 1 Ensuring academic goals and plans for all programs 5
- Charge Question Part 2 Evidences 6
- Charge Question Part 3 Resources and Technological Support 8

General Education 9

Recommendations 11

Appendix A— RIT Programs Summary Table 13

Appendix B College Executive Summaries 26

- College of Imaging Arts and Sciences (CIAS) 26
- E. Philip Saunders College of Business (EPSCOB) 181
- Kate Gleason College of Engineering (KGCOE) 196
- College of Science (COS) 205
- Thomas Golisano College of Computing and Information Sciences (GCCIS) 213
- College of Applied Science and Technology (CAST) 223
- National Technical Institute for the Deaf 326
- College of Liberal Arts Executive Summary 342

Student Learning Outcomes Assessment Committee Report

2008/2009 Task Force Members

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Organization of the Report

This report first provides a brief historical context of the committee and learning assessment at RIT. This is followed by a general progress report including assessment implementation in all the RIT programs and current status of the course outline update project. The report continues with a discussion of achievements, concerns, and approaches across the colleges, includes summaries from each college and concludes with recommendations. The appendices contain the full programmatic reports from each college.

Historical Context

The formal charge of the Student Learning Outcomes Assessment Committee (SLOAC) is to champion and facilitate outcomes assessment across the RIT colleges and programs. The group originally formed as a sub-group of the 2002 steering committee

charged to prepare the Periodic Review Report to the Middle States Commission of Higher Education (MSCHE). The academic assessment team continued to meet and in 2006-2007 became one of the task forces charged with preparing for the 2007 MSCHE site visit. The Academic Outcomes Assessment Task Force provided a report for the Middle States fall 2007 re-accreditation review in March 2007 and this 2009 report updates and continues the assessment process.

The group was renamed the Student Learning Outcomes Assessment Committee (SLOAC) in 2008 and continues to meet twice a month. SLOAC representatives from each RIT college and the Student Affairs Division continue to share strategies, address questions regarding the outcomes assessment efforts in each of the colleges, prepare update reports of our progress in developing and utilizing student outcomes assessment to enhance curricula and instruction and to discuss ways to collaborate and support each of our efforts.

Each of the eight colleges has continued assessment efforts since the initial March 2007 report to Middle States Accreditation Team. Data collection has continued for all existing outcomes assessment plans and outcomes assessment plans are part of the curriculum design of all new programs.

Student Learning Outcomes Assessment Standard 14 Charges

In 2007, RIT formulated charges and charge questions as part of its response to MSCHE Standard 14 as part of the RIT self-study design for the MSCHE site visit. These three questions continue to provide a foundation for learning assessment.

Standard 14 – Assessment of Student Learning and the three charge questions

Institutional Context

"RIT's academic programs are application-intensive," the *RIT Periodic Review Report Executive Summary, June 2002* states. "From its founding, the RIT education has emphasized student mastery of current, practical, and marketable knowledge and skills in technology-based careers. The historical emphasis on applications and our resulting experience in measuring 'what students can do' has made us particularly respectful of concrete evidence of student learning."

Assessments of RIT as a whole and of student learning in particular build on and complement this tradition. Our commitment to student learning and student success requires systematic and embedded assessment practices at every level and across all units. *A Call to Action*, the January 2005 implementation plan for our Strategic Plan, details seven themes that contribute to student success at RIT: Scholarship, Community, Student Support Services, Global Society, Faculty and Staff Performance Expectations, Curricular Flexibility, and Experiential Education. Intentional and continuous assessment across these areas is vital.

Charge questions:

1. Do we ensure that all academic programs have appropriate goals and assessment plans based on student learning outcomes?

2. Describe what evidence is used and how this evidence leads to the continuous improvement of educational practices, advising, teaching and learning.

3. As an Institute are we supplying the appropriate resources and technological support for these assessment efforts?

Learning Assessment at RIT—Responses to the Charge Questions

Each college has completed a full assessment report and individual programs have updated their analysis since the March 2007 report. This section contains a summary table of all RIT programs showing their program and course assessment status. A table showing all RIT programs and their assessment status is found in Appendix A. Full college reports are in Appendix B.

Charge Question Part 1 Ensuring academic goals and plans for all programs

Do we ensure that all academic programs have appropriate goals and assessment plans based on student learning outcomes?

The colleges and programs have continued to implement assessment practices and analysis. Every RIT program has program goals. Any new program proposal must contain assessment plans with learning goals, outcomes, and measures. All new courses must contain learning outcomes and measures. This is embedded in the approval processes and forms of all curriculum committees—individual program faculty committees, department, college and institute level groups.

Charge Question Part 2 Evidences

Describe what evidence is used and how this evidence leads to the continuous improvement of educational practices, advising, teaching and learning.

Compared to the last report, every college has made significant advances in refining outcomes assessment measures, collecting data and applying it to improving instruction.

An important part of the assessment cycle is 'closing the loop'. Most programs have now been through at least two assessment cycles, collected and analyzed data, and made course and program changes. A critical part of the assessment process is determining if the changes have been successful or the problem needs further attention. About half the programs indicated that they were in the process of collecting the data on changes made in the last assessment cycle, and other programs with more experience are clearly engaged in 'closing the loop'. Given the timing of this report some of the recommended changes had just occurred or were just at the next data collection stage.

A review of the college and program reports shows that most programs now have made clear changes in response to collection and analysis of data and many changes have been implemented. Programs that were lacking in the last report are now engaged in

assessment. All programs have moved forward form where they were during the last reporting phase and the reports are more comprehensive.

Appendix B contains the executive summary and program details of each college's assessment implementation. Each college's individual program reports for the third round of assessment completed in March 2009 are available electronically from the RIT Director of Student Learning Outcome Assessment or by contacting each college.

Progress on Course Outline Revisions

Table 1 summarizes the course outline initiative to incorporate intended learning outcomes into existing courses and presents the change from the last report in March, 2007. The college reports (Appendix B) contain complete details. Several colleges have noted that the process is proving to be a vehicle for updating their course portfolio and discontinuing courses no longer offered. It appears that this practice is now solidly embedded in the departments. It is recommended that by the next cycle all colleges should be at the 98-100% level and a yearly review should be completed to discontinue inactive courses.

Table 2

Course Outlines revised w/ Intended Learning Outcomes	Completion Rate		
	2006	**2007**	**2008**
College of Applied Science and Technology	95%	95-100%	100%
Saunders College of Business	98%	99%	100%
Kate Gleason College of Engineering	95%	95%	98%
College of Science	70%	93%	93%
National Technical Institute for the Deaf	94%	99%	100%
B. Thomas Golisano College of Computing & Information Sciences	66%	90-100%	99%
College of Liberal Arts	70%	70%	100%
College of Imaging Arts and Sciences	100%	100%	100%

Charge Question Part 3 Resources and Technological Support

As an Institute are we supplying the appropriate resources and technological support for these assessment efforts?

There has been progress made at the institutional level to embed systems and processes, provide data, and bring in new resources experienced in assessment including

- Visible, stronger leadership at the President, Provost, Interim Senior Associate Provost, and Dean's level to emphasize the importance of assessment and establish responsibility and accountability.
- Recent hiring of a Director of Student Learning Outcome Assessment to work at the university level and facilitate assessment across colleges
- New Director of Institutional Research who is working with colleges to refine and clarify data, provide consistent reports, create a data warehouse, and upgrade data availability

- New committees led by the Interim Senior Associate Provost to address ongoing and cross-college issues such as General Education assessment
- New understanding of the need to find report structures and materials that can meet multiple needs and eliminate college shadow systems

Since the beginning of learning assessment implementation, all colleges have accomplished their assessment efforts by re-allocating existing college resources in budget, technical resources, and faculty and administrative time. While the startup phase has been accommodated by this reallocation of existing college resources, to sustain the process over time all members of the committee agree that incremental resources and support are needed.

We are addressing budget cuts for the 2009-2010 school years. Economies of scale will become more important. Institutional level systems that can support the complexity of assessment and data analysis required by MSCHE and the individual program accrediting groups are needed.

General Education

A number of processes are converging and moving RIT toward establishing a set of general education learning outcomes and associated assessment processes. The faculty team from the colleges of Liberal Arts, Science and National Technical Institute for the Deaf who were charged with drafting a General Education White Paper for the RIT community submitted their report to the RIT Provost in August 2008. Their recommendations were subsequently reviewed by the Intercollegiate Curriculum Committee, the Academic Senate and an external

reviewer. A copy of this white paper is available from the Director of Student learning Outcomes Assessment.

At the request of Academic Senate, and as charged by the Provost, the work of refining the set of five student learning outcomes for the general education curriculum at RIT and of proposing a sustainable evaluation and assessment plan has been undertaken by a Task Force composed of representatives from all eight colleges of RIT. The group is co-chaired by the new Director of Student Learning Outcomes Assessment and the College of Liberal Arts curriculum committee chairperson and also has several members of the White Paper faculty team. Their recommendations will be submitted to the Provost by April 15 of this academic year.

While the final set of general education learning outcomes is in the revision stage, several pilot assessment projects are underway under the direction of the Provost's office. These include course level assessments of some of the student learning outcomes that are proposed in the White Paper and consistent with the current RIT Liberal Learning goals. Results will not only provide data, but valuable experiences that will help shape RIT's assessment processes.

The Student Learning Outcomes Assessment Committee fully supports these activities, the details of which are reported elsewhere. We recognize that general education assessment is critical to RIT's assessment mission and look forward to its full implementation.

Recommendations

This committee recognizes progress has been made and that progress should be acknowledged. These recommendations are made in the spirit of continuous improvement recognizing that the challenges below will not be solved immediately. The list below includes items taken from recent RIT ad hoc committee reports that the SLOAC also recommends.

Institute level recommendations:

- Continue to embed assessment into institutional systems and processes and decision making emphasizing its importance, and personal responsibility and accountability
- Facilitate and support communication and collaboration to find common solutions
- Proactively address resource issues
- Establish an Office of Assessment
- Establish an RIT assessment website that includes online tools, resource links, templates, data-gathering systems, a document management system, and archives all program, college and institute reports
- Create a yearly requirement for every program to submit an assessment update and planning report. For example, all programs complete a yearly report due June 30.
- Recognize and reward learning assessment
- Facilitate collaboration between those doing General Education assessment and those that have specific needs for their individual accrediting groups. Look for methods that can easily provide the individualized information that some programs need.

- Provide additional training for faculty and program administrators

College/program level themes and challenges

- Simplifying the collection, analysis, management and maintenance of data
- Understanding and balancing the workloads of those doing assessment.
- Finding the resources to backfill for those doing assessment
- Refining assessment plans and techniques as we learn more about assessment
- Training faculty in assessment methodologies at the beginning and more advanced levels
- Creating best practice sharing with cross-college faculty
- Coordinating assessment requirements across multiple accrediting bodies
- Aligning program assessment with Institute and college level initiatives

Progress has been made and results of outcomes assessment have been applied to improving instruction throughout RIT. Since the last report in March 2007 RIT has made progress at the institute level to embed assessment, hire more expertise, and address major assessment challenges such as General Education. Every college has made significant progress in embedding outcomes assessment and 'closing the loop'. At the program level, there is much activity refining outcome measures and developing systems of data collection and analysis, and 'closing the loop', and every program has advanced beyond where they were at the last reporting cycle. Initial General Education assessment has taken place, and definitions and metrics are in development to further embed the processes.

Appendix A— RIT Programs Summary Table

College/Program	Program Outcomes Defined	Assessment Methods Identified	Course Outlines have learning outcomes	Data Collection	Report shows data, decisions, results analysis	Assessment plan fully implemented with continuous review	Comments
College of Applied Science and Technology							
Undergraduate							
Civil ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Electrical ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Computer ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Telecommunications ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Electrical /Mechanical ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Manufacturing ET*	C	C	C	C	Yes	C	Fourth evaluation cycle - original/follow-up reporting
Mechanical ET*	C	C	C	C	Yes	C	Fourth evaluation cycles - original/follow-up reporting
Safety Technology*	C	C	C	C	Yes	C	Approved for ABET accrediting. Outcomes criteria mapped to ABET requirements
Packaging Science	IP	C	C	IP	Yes	C	3nd assessment cycle, new chair is implementing programmatic changes, updating program outcomes, and refining assessment plan for next round.
Hospitality and Service Management	C	C	C	C	Yes	C	3nd assessment cycle
Nutrition Management	C	C	C	C	Yes	C	3nd assessment cycle Also, external accreditation

Environmental Management and Technology	C	C	C	C	Yes	C	3nd assessment cycle
Applied Arts and Sciences	C	C		C	Yes	C	3nd assessment cycle
GRADUATE							
Environmental Health and Safety Management	C	C	C	C	Yes	C	3nd assessment cycle
Packaging Science	C	C	C	C	Yes	C	3nd assessment cycle
Telecommunications Engineering Technology	C	C	C	C	Yes	C	3nd assessment cycle
Hospitality-Tourism Management	C	C	C	C	Yes	C	3nd assessment cycle
Service Management	C	C	C	C	Yes	C	3nd assessment cycle
Human Resource Development	C	C	C	C	Yes	C	3nd assessment cycle
Health Systems Administration	C	C	C	C	Yes	C	3nd assessment cycle
Cross-Disciplinary Professional Studies	C	C	C	C	Yes	C	3nd assessment cycle
Manufacturing and Mechanical Systems Integration	C	C	C	C	Yes	C	3nd assessment cycle
Facilities Management	C	C	C	C	Yes	C	New graduate program approved 9/2006. First assessment report completed in 2008/2009 cycle
Saunders College of Business							
Undergrad. BS	C	C	C	C/IP	C/IP	C/IP	Some goals assessed, rest in process. All will have been assessed by Spring 2009.
Regular MBA	C	C	C	C/IP	C/IP	C/IP	
Executive MBA	C	C	C	IP	IP	IP	All goals will be assessed by Fall 2009.
MS in Finance	C	C	C	C/IP	IP	IP	All goals will be assessed by Spring 2009.
MS in Mgmt.	C	IP	C	IP	IP	IP	All goals will be assessed by Fall 2009.
College of Liberal Arts							
Applied Experimental and	C	C	C	IP	IP	IP	New program – assessment not yet fully

Engineering Psychology (M.S.)							implemented for "loop closing."
Advertising & Public Relations (B.S.)	C	C	C	C	C	C	
Communication & Media Technologies (M.S.)	C	C	C	C	C	C	
Criminal Justice (B.S.)	C	C	C	IP	IP	IP	Data collection will begin Spring 2009
Cultural Resource Studies (B.S.)	C	C	C	M	M	IP	New program – has complete assessment plan but not yet implemented
Economics (B.S.)	C	C	C	C	C	C	Department concluded no changes are needed to the program.
International Studies (B.S.)	C	C	C	C	M	IP	Unclear association between data and program decisions beyond feedback to students.
Journalism (B.S.)	C	C	C	IP	IP	IP	New degree approved 9/08
Philosophy (B.S.)	C	C	C	IP	IP	IP	New degree approved 9/08
Professional & Technical Communication (B.S.)	C	C	C	C	C	C	
Psychology (B.S.)	C	C	C	C	IP	IP	Department reviewed outcomes and made program changes based primarily on anecdotal observations.
Public Policy (B.S.)	C	C	C	C	C	C	
School Psychology (M.S., A.G.C)	C	C	C	C	C	C	Externally accredited program (National Association of School Psychologists)
Science, Technology and Public Policy (M.S.)	C	C	C	C	C	C	
Urban and Community Studies (B.S.)	C	C	C	IP	M	IP	New program; insufficient data to report. Unclear association between data and program decisions beyond feedback to students.
College of Science							
Biology	C		C	C	C	C	
Biotechnology	C		C	C	C	C	
Bioinformatics	C		C	C	C	C	
Biomedical Sciences †	IP		IP	IP	IP	IP	Preliminary plan- some data. new program since last assessment report
Environmental Science	C	C	C	C	C	C	

Chemistry	C	C	C	C	C	C	
Polymer Chemistry	C	C	C	C	C	C	
Biochemistry	C	C	C	C	C	C	
Applied Mathematics	C	C	C	C	C	C	
Computational Mathematics	C	C	C	C	C	C	
Applied Statistics	C	C	C	C	C	C	
Physics	C	C	C	C	C	C	
Diagnostic Medical Sonography	C	C	C	C	C	C	
Physician Assistant	C	C					
Imaging Science	C	C	C	C	C	C	
MS Programs			C	C	C	C	
Bioinformatics	C	C	C	C	C	C	
Environmental Science	C	C	C	C	C	C	
Chemistry	C	C	C	C	C	C	
Applied and Computational Mathematics §	C	C	C	C	C	C	Program name change since last report
Clinical Chemistry	C	C	C	C	C	C	
Imaging Science	C	C	C	C	C	C	
Color Science	C	C	C	C	C	C	
Ph D Programs							
Astrophysical Science and Technology ☼	IP	IP	IP	IP	IP	IP	Plan only. New program this academic year
Color Science†	C	C	C	C	C	C	
Imaging Science	C	C	C	C	C	C	
Golisano College of Computing and Information Sciences							
BS Applied Networking & Systems Admin.	C	IP	C	IP	IP	IP	
BS Computer Science	C	C	C	C	C	C	
BS Game Design and Development	C	IP	C	IP	IP	M	
BS Information Security and Forensics	C	IP	C	IP	IP	IP	
BS Information Technology	C	C	C	C	C	C	
BS Medical Informatics	C	M	C	M	M	M	

BS New Media Interactive Development	IP	IP	C	IP	M	M	
BS Software Engineering	C	C	C	C	C	C	
MS Computer Science	C	C	C	C	C	C	
MS Computer Security &Information Assurance	C	IP	C	M	M	M	
MS Game Design and Development	C	IP	C	M	M	M	
MS Human Computer Interaction	C	M	C	M	M	M	
MS Information Technology	C	IP	C	M	M	M	
MS Learning & Knowledge Management	C	C	C	C	C	IP	
MS Networking & Systems Administration	C	IP	C	M	M	M	
MS Software Development & Management	C	IP	C	IP	IP	IP	
MS Software Engineering	C	C	C	M	M	M	
PhD Computing and Information Sciences	C	C	C	C	C	C	
Kate Gleason College of Engineering							
Undergraduate							
Biomedical Engineering	C	C	C	IP	IP	IP	New program not yet approved by state. Implementation will not be complete until first graduating class
Chemical Engineering	C	C	C	IP	IP	IP	New program approved by the state. Implementation will not be complete until first graduating class.
Computer Engineering (BS)	C	C	C	C	C	C	Periodic Review of PEO and PO accomplished. Multiple examples of program enhancements.
Electrical Engineering (BS)	C	C	C	C	C	C	Periodic review of PEO & PO accomplished. Program improvements implemented
Industrial Engineering (BS)	C	C	C	C	C	C	Sustainable Assessment Plan Implemented
Mechanical Engineering (BS)	C	C	C	C	C	C	Revised Sustainable Assessment Plan Implemented. Report shows good analysis including trends.

Microelectronic Engineering (BS)	C	C	C	C	C	C	Educational objectives currently under review
Graduate							
Computer Engineering (MS)	C	C	C	IP	IP	IP	Program educational objectives and program outcomes were reviewed and revised in 2008
Electrical Engineering (MS)	C	C	C	IP	IP	IP	Periodic review of PEO & PO accomplished in fall of 2008. Assessment plan exists for each program objective.
Industrial Engineering (MS)	C	C	C	C	C	IP	An integrated assessment plan developed that allows for continuous review of ISE graduated programs. Analysis of data has led to program improvements.
Industrial Engineering (ME Degrees)							
Engineering Management	C	C	C	C	C	IP	An integrated assessment plan developed that allows for continuous review of ISE graduated programs. Analysis of data has led to program improvements.
Industrial Engineering	C	C	C	C	C	IP	An integrated assessment plan developed that allows for continuous review of ISE graduated programs. Analysis of data has led to program improvements.
System Engineering	C	C	C	C	C	IP	An integrated assessment plan developed that allows for continuous review of ISE graduated programs. Analysis of data has led to program improvements.
Mechanical Engineering (MS)	C	C	C	C	IP	IP	Assessment Plan Revised & Defined. Data collection well underway. Data will support trend analysis.
Mechanical Engineering (ME)	C	C	C	C	IP	IP	Assessment Plan Revised & Defined. Data collection well underway. Data will support trend analysis.
Microelectronic Engineering (MS)	C	C	C	IP	IP	IP	Course based assessment is on going. An analysis of assessment data indicated a need for a BS/MS degree program.
Microelectronic Manufacturing Engr. (ME)	C	C	C	IP	IP	IP	Graduate student surveys are being added to the assessment process. Implementation expected summer of 2009
Applied Statistics (MS)	C	C	C	C	C	IP	Revisions to curriculum made. On line survey being implemented as replacement for mailed survey.
Manufacturing Leadership (MS)	C	C	C	IP	IP	IP	Assessment Plan Finalized, Initial Data

							Collection, Some Preliminary Analysis
Product Development (MS)	C	C	C	IP	IP	IP	Assessment Plan Finalized, Initial Data Collection, Some Preliminary Analysis
Microsystems Engineering (PhD)	C	C	C	C	C	C	PhD program has defined standard attributes and compared RIT's program to the top ranked programs in the country.
College of Imaging Arts and Sciences							
School For American Crafts							
BFA Ceramics	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Ceramics	C	C	C	C	C	CC	09 Outcomes Update added to Program Assessment
BFA Glass	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Glass	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Metals	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Metals	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Wood	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Wood	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
AOS Wood (Occupational Studies	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
NTID							
AOS Computer Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
AAS Computer Design	C	C	C	C	C	CC	09 Outcomes Update added to Program Assessment
	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
School Of Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Graphic Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
AAS Graphic Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Industrial Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment

AAS Industrial Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Interior Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
AAS Interior Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA New Media Design and Imaging	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Graphic Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Industrial Design	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Computer Graphics Design	C	C	C	C	C	CC	09 Outcomes Update added to Program Assessment
	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
School of Film and Animation	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Film/Video/Animation	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Imaging Arts- Film and Animation	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
School of Photographic Arts and Sciences	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
AAS Photographic Illustration	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BFA Photographic Illustration	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
MFA Imaging Arts – Photography	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BS Biomedical Photographic Communication	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BS Imaging and Photographic Technology	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
School of Print Media							
BS Graphic Media	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
BS New Media Publishing	C	C	C	C	C	CC	09 Outcomes Update added to Program Assessment

MS Print Media	C	C	C	C	C	C	09 Outcomes Update added to Program Assessment
National Technical Institute for the Deaf							
ACADEMIC PROGRAMS							
Accounting Technology	C	C	C	C	C	C	Data collected on 41 additional students; % achieving criterion increased; results difficult to interpret; developing test for a better measurement of specific technical skills; will analyze yearly rather than a aggregate data in '09-'10
Administrative Support Technology	C	C	C	C	C	C	Most benchmarks met; '07-'08 below criterion for interpersonal skills-workshop & special topics course developed to address this in '08-'09; Articulation Agreement w/ CAST helps address student satisfaction
ASL-English Interpretation	C	C	C	C	C	IP	Results posted for AY 06-07 & 07-08; some changes made to plan based on BS program revision; % of students meeting criterion levels varied; no actions planned at this time-will continue to collect data.
Applied Computer Technology	C	C	C	C	C	IP	Criteria met for 1.5 out of 3 general technical skill areas and none of the technical concentrations; Working Group will be convened '08-'09 to consider assessing categories of grouped tasks instead of individual skills.
Applied Mechanical Technology	C	C	C	IP	IP	IP	Data collection initiated, including Student Satisfaction Survey; N's are too small (1-5 students) to interpret or use results yet; First cohort of students enrolled in the full 2 year program will graduate 20083.
Applied Optical Technology	C	C	C	IP	IP	IP	Program is scheduled for discontinuance; precision facbrication elements have been added as electives in Computer Integrated Machining Tech (CIMT) starting '08-'09; outcomes have been incorporated in CIMT plan
Art and Computer Design	C	C	C	C	C	C	Criterion exceeded for technical skills, placement, co-op evaluations and alumni

							satisfaction; Program to be discontinued June 2010-relevant elements are included & assessed in new (consolidated) program.
Art & Imaging Studies	C	C	C	IP	IP	IP	The A&IS program just completed its first year and the first graduates will be in AY 2008-2009. The program outcome assessment will occur at that time.
Automation Technologies	C	C	C	IP	IP	IP	Results positive for placement, co-op and student satisfaction with courses; positive results on 3 of 4 technical skills; potential weakness in electrical skills; n's too small to draw conclusions; will continue to monitor results
Business (AS Degree Program)	C	C	C	IP	IP	IP	Criterion exceeded for acceptance into BS program; Satisfaction questionnaire & standardized test to assess five business core areas were developed and approved by faculty; these will be administered AY '08-'09
Computer Aided Drafting Technology	C	C	C	IP	IP	IP	Technical skills results generally positive; four technical courses moved to earlier in program to strengthen ability to incorporate technical information into projects; data from 20081 indicated strong student satisfaction
Computer Integrated Machining Technology	C	C	C	IP	IP	IP	First attempt to assess technical skills; some results are positive, others are not; Co-op, placement & alumni results met criterion; Student satisfaction survey yielded mixed results; program modified; more data needed
Digital Imaging and Publishing Technology	C	C	C	C	C	C	All criterion met or exceeded; program to be discontinued June 2010-relevant elements are included in new program; based on DIPT assessment, web production will be monitored and a second publishing courses added
Hospitality and Service Management	C	C	C	IP	IP	IP	First year of program; data collection to begin in AY 2008-2009; enrollment expectation of one student was exceeded by two; none on co-op; will encourage students to follow course mask and pursue co-op on time
Laboratory Science Technology	C	C	C	C	C	C	Benchmarks met for 13/14 technical skills;

							faculty believe trend toward improved safety ratings is due to revised curriculum; biology/microbiology curriculum to be reviewed/revised to try to improve ratings in this category
Secondary Education of Students Who Are Deaf or Hard of Hearing (MSSE)	C	C	C	C	C	C	Online self-appraisal of student teaching aims to improve 50% response rate; addressing timing re classroom mgmt & IEP writing; action plan sent to NYSED re content certification pass rate; rate improved from '07 to '08
GENERAL EDUCATION (Arts & Sciences)							
English Literacy	C	C	C	IP	IP	IP	Major revamp of developmental English curriculum; Career English and Intensive English programs initiated-experimental phase continues AY08-09; Intensive English data shows target course placement may be too high;
Critical Thinking	C	C	C	C	C	C	Manuscript based on process and results in press; Capstone course revised to better address curricular goals; critical thinking rubric applied to team presentations instead of research papers; criterion met for AOS students
Communication	C	C	C	IP	IP	IP	Co-op supervisor data re: face-to-face communication indicated sufficient competency; E-mail evaluation piloted-being revised; Criterion met for presentations in Capstone; Instruction infused in several courses
ACADEMIC SUPPORT							
Counseling	C	C	C	C	C	C	Criterion met or exceeded for all first year students' outcomes; graduating student satisfaction rate near criterion level; increased respondent rate by changing administration timing; established assessment task force
First Year Experiences	C	C	C	C	C	C	Most benchmarks met or exceeded; retention improved; program placement % for NCXU improved from '07-'08 to '08-'09; Over 97% success for Fall registration for two years-

							assessment to be discontinued in '09-'10
Speech-Language and Audiology	C	C	C	C	C	IP	Most benchmarks met; change to services ques. improved results; will monitor articulation pre-post in 08-09: drop may be due to adding new staff/adjuncts; pre-post data collection begins 08-09 for audiology & aural rehab
Student Life	C	C	C	C	C	C	Results indicate overall satisfaction with programs, staff & environment; PD of staff is substantial; implemented different data collection plan to improve outreach to students not regularly utilizing Student Life Team services

Appendix B College Executive Summaries

College of Imaging Arts and Sciences (CIAS)

College of Imaging Arts and Sciences Programs Assessment Update January 25, 2009

School for American Crafts

General Objectives for the School for American Crafts

As object makers, we strive:

a. to integrate an intimate understanding of materials and processes with conceptual ideas;

b. to provide an intensive studio experience where personal expression and professionalism flourish;

c. to provide a balanced experience that engages students in the exploration of their individual creative interests, while developing a comprehensive technical background in their discipline;

d. to provide an international community of students that has interests spanning the full spectrum of the Crafts world;

e. to provide major studios where students support one another and take satisfaction in the success of others;

f. to create leaders in their respective fields.

Our degree programs are designed to prepare graduates for:

a. self employment as craft artists and/or designers;

b. employment in the field as product designers, ceramic technicians, etc.;

c. employment in the industry as designers, product development personnel, etc.;

d. apprentice/employees of a master craftsperson;

e. for BFA graduates, further study in an MFA degree program.

BFA in Ceramics

a. Goals

The BFA in Ceramics is an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from clay. It is intended for students who wish to pursue a career in the field of ceramics. It explores this in terms of craftsmanship and its potential for personal expression. This also prepares students for further training in the field, including graduate study.

b. Compliance

The Ceramics BFA Program is in full compliance with the NASAD standards for the degree. Students receive a strong foundation in a variety of techniques developing skills and a material sensibility which are expanded upon as they progress through their major. Technical experiences are combined with design and aesthetic assignments to enhance the students ability to creatively solve problems. The Ceramics Program focuses on a wide range of educational experiences including hand-building, wheel throwing, glazes and glaze chemistry, electric firing processes and stoneware gas firing, etc. In addition, there is ongoing contact with the professional field through field trips and exposure to visiting artists.

Throughout the four years skills are expanded upon and developed in increasingly sophisticated design problems, which develop the students' understanding and competence in dealing with functional issues and outstanding craftsmanship, while also providing the opportunity for more investigation of aesthetics and personal expression. In the upperclass years students are given increasingly more opportunities to explore and investigate particular personal interests which might lead to future career or graduate school paths. They also investigate personal sources of inspiration for their work. In addition they take a series of carefully planned business classes that help prepare them to negotiate their respective fields as a serious career.

The program culminates with the Senior Exhibition. This is an exhibition representative of the body of work that the students have created while at school. It takes place at a local gallery, and it is organized and implemented by the students' professional involvement.

c. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolio packages, the exhibitions of their work, the high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. The active nature of our alumni is evidenced in the annual newsletter.

d. Strengths and Weaknesses

The strengths of the BFA in Ceramics program include:

- a carefully developed and sequenced program of study;

- good equipment and facilities;
- professionally active faculty who are committed teachers;
- diverse perspectives and approaches to their work on the part of the faculty;
- commitment to the integration of fine craftsmanship with personal expression;
- dedicated studio space for all major students;
- a positive and nurturing environment that fosters individual growth within a cooperative community;
- visiting artists, speakers, field trips and interaction with other ceramics educational institutions;
- opportunities for students to exhibit their work;
- Bevier and NTID Galleries offer students both opportunity to see professional exhibitions and to use the galleries for their exhibitions;
- RIT resources including computer labs, excellent library, and archives;
- opportunities for students to broaden their knowledge and experience through exposure and participation in other CIAS programs, and also other Colleges including Liberal Arts;
- good network with alumni, especially through annual newsletter;
- use of graduate students as teaching assistants.

The weaknesses of the BFA in Ceramics program include:

- need to expose students to more of what is going on outside in the craft world;
- need for additional funds to increase visiting artist program, field trips, trips to conferences for both faculty and students;
- the Ceramics Studio has excellent equipment but needs more space;

- need for additional technical support to deal with ever increasing demands from all the major studios;
- need for some additional equipment to compete effectively in the field (e.g., a wood kiln).

e. Plans for Improvement

The plans for improvement of the BFA in Ceramics program include seeking additional outside funding sources; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality students; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; and seeking funds to support an International Visiting Artist Series.

f. Results from Plans for Improvement

The BFA in Ceramics program continues to seek additional outside funding sources; we continue to assesses and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue to work on recruiting the highest quality students; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; and continue to seek funding to support the International Visiting Artist Series.

g. Program Outcomes 09 Update

The Ceramics degree program has completed the planning stages of a major facilities renovation involving the construction of a new building wing to be added to the Booth building. Construction will begin in early 09. The new facility will improve student workflow and provide for additional space and changing program needs. Curricular improvements are also being developed in non-facilities courses such as the craft business course sequence. Ceramics is

capitalizing on a strong reputation to facilitate exchanges and alumni visits, and to enhance the International Visiting Artist Series. We continue to develop strategies to recruit the highest quality students. Ceramics is continuing the process of improvement of safety standards and incorporating safety into the curriculum.

MFA in Ceramics

a. Goals

The MFA in Ceramics is intended for students who wish to pursue an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from clay. It is for students interested in a career in the field of ceramics. Many MFA candidates have an interest in teaching at the college level.

b. Compliance

The Ceramics MFA Program is in full compliance with the NASAD standards for the degree. Students must take 36 credits in their major studio, 18 credits in an additional studio setting, 18 credits in thesis studio preparation and 4 credits in thesis review and consultation resulting in a total of 76 credits or 84% of major studio and related areas. The specifics of these courses and all of the others are explained in great detail in the SAC Graduate Handbook.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Students are selected on the basis of regular graduate admissions policies for SAC. Generally a baccalaureate degree from an accredited college or university is required.

Evidence of professional potential is determined by a variety of factors including, but not limited to: undergraduate record; professional work record; creative production as presented through portfolio (the most important factor); written statement of purpose; letters of recommendation; personal interview. There are cases where a desirable applicant is determined to need additional work, usually in the major studio, beyond the normal two years. These students may be accepted as "3-year graduate students".

ii. Research and professional tools required in the program

All SAC students are required to take Forms of Inquiry, Graduate Forum and Crafts Graduate Seminar to prepare them in critical thinking, research methods, critical analysis, concept development and writing competency. These proficiencies may be developed concurrently within the program. Students are expected to enrich their knowledge of the field of art through the range of elective offerings in the studio and various academic course offerings, as well as through major studio course work.

iii. Policy for comprehensive review of graduate degree candidates

Grades are used as essential evidence of each candidate's progress in the program for the first 4 quarters. In addition, two courses, Thesis Implementation and Thesis Review specifically address a candidate's readiness to continue on in the process of preparation for the final thesis exhibition and written thesis report. At the end of the first year a candidate forms a thesis committee that monitors the candidate's satisfactory progress toward completion of the degree, with a Chief Advisor, a faculty member from the student's major, taking the primary responsibility. The committee does a final review of the thesis exhibition and signs off on the

final written thesis document. Students are regularly reviewed throughout each quarter to insure that they are maintaining high and consistent levels of achievement with their projects. Regular critiques and one on one discussion with ceramics and other SAC faculty give the graduate students a balanced perspective as they progress and develop their personal work. The students are carefully evaluated and only allowed to continue into their thesis year if they maintain a consistently high level of professional work. If additional work or research is required to continue into the thesis year the student is well informed in advance and is given several opportunities to improve the quality of their research and work. Please see Appendix C, the SAC Graduate Handbook for additional information.

iv. Candidacy and final project requirements for the program

The thesis exhibition and the written thesis report are the culminating experiences if the MFA Program. The body of work represented in the exhibition should demonstrate technical mastery as well as sophisticated conceptual and aesthetic development. Toward this end the conceptual/written development should propel the physical development of the work. The written document should be an integral and dynamic part of the process of exploration and discovery. The thesis exhibitions typically take place in the spring of the second year.

d. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolios, the exhibitions of their work, the high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. As professionals and experts in their field of research the graduates have mastered the

material and technique, developed their personal aesthetic, expanded and refined their conceptual abilities and are now prepared to begin a serious career. Many graduates go on to begin careers as teachers at the college level, directors of public and private studios and strong independent studio artists.

e. Strengths and Weaknesses

The strengths of the MFA in Ceramics program include:

- two major faculty in major studio;
- faculty with diverse experience and international reputations in the field;
- a sound philosophical approach to craft which combines a high level of craftsmanship with material sensibility and the development of personal ideas;
- emphasis on professional practices;
- good facilities;
- developing, building and maintaining a sense of community;
- contacts in the professional world outside the academic arena.

The weaknesses of the MFA in Ceramics program include:

- need for additional technical support to deal with ever increasing demands from all the major studios;
- need for more graduate studio space;
- need to expose students to more visiting artists and for international exchanges;
- increased funds for faculty and students to travel to professional conferences;
- need for an International Visiting Artists Series.

f. Plans for Improvement

The plans for improvement of the MFA in Ceramics program include: seeking additional outside funding sources including funds for a Visiting Artist Series; developing plans for international exchange; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; developing plans for extended studio space for graduate students; seeking funds to enable faculty and students to participate in professional conferences; and continuing to enhance the program and better communicate with our alumni.

g. Results from Plans for Improvement

The MFA in Ceramics program continues to seek additional outside funding sources including funds for Visiting Artist Series. We continue to develop plans for international exchange and continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc. Through creative methods of reevaluating our current studio we have extended studio space for graduate students. We continue to seek funding to enable faculty and students to participate in professional conferences and enhance the program. Through the development of an email/mailing list, as well as the School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program.

g. Program Outcomes 09 Update

In addition to improvements listed under BFA in Ceramics, we have accelerating the recruiting process for attracting applicants to the MFA degree program. We continue to seek funding to enable faculty and students to participate in professional conferences and enhance the program. Through the development of an email/mailing list, as well as the completion of a School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program. We continue seeking additional scholarship support through the capital campaign to improve student retention and stipend assistance.

BFA in Glass

a. Goals

The BFA in Glass is intended for students who wish to pursue a career in the field of Glass. It is an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from glass. It explores this in terms of craftsmanship and its potential for personal expression. This also prepares students for further training in the field, including graduate study.

b. Compliance

The Glass Program is in full compliance with the NASAD standards for the degree. Students receive a strong foundation in a variety of techniques developing skills and a material

sensibility that are expanded upon as they progress through their four year major. Technical experiences are combined with design and aesthetic assignments to enhance the students ability to creatively solve problems. The Glass Program focuses on a wide range of educational experiences in Glass including Glass Blowing, Pate de Verre and Glass Casting, Fusing, Enameling, Engraving, Lamination, Grinding, Cutting and Polishing, Stained Glass, Glass History and Chemistry, etc.. They also participate in field trips to other educational institutions, galleries, and museums as well as exposure to visiting artists who are significant contributors to the field of Glass Art. In addition they take a series of carefully planned business classes that help prepare them to negotiate their respective fields as a serious career. The program culminates with the Senior Exhibition. This is an exhibition representative of the body of work that the students have created while at school. It takes place at a local gallery, and it is organized and implemented by the students' professional involvement.

c. Results

There is a resulting success in the education of students in the Glass Program. The means of evaluation are evident in the following: (1) a high percentage of graduating students continue on to excellent graduate programs in glass, or are involved in glass in a professional occupation such as museum glass studios, employees in independent artists studio businesses, teaching, technical equipment builders, and design and product developers; (2) the high level of quality work produced by current students and alumni recognized in gallery exhibitions and competitions both nationally and internationally; and (3) positive enrollment and a reputation that is attracting students internationally.

d. Strengths and Weaknesses

The strengths of the BFA in Glass program include:

- a carefully developed and sequenced program of study;
- two major faculty are now employed in the Glass Program both with a considerable record of significant contributions to the field of Glass Art and both of whom are committed teachers;
- good equipment and facilities;
- diverse perspectives and approaches to their work on the part of the faculty;
- commitment to the integration of fine craftsmanship with personal expression;
- dedicated studio space for all major students;
- a positive and nurturing environment that fosters individual growth within a cooperative community;
- ample quality interaction with faculty and graduate students both within a group and on an individual basis;
- visiting artists, speakers, field trips, and interaction with other glass educational institutions;
- opportunities for students to exhibit their work;
- Bevier and NTID Galleries offer students both opportunity to see professional exhibitions and to use the galleries for their exhibitions;
- RIT resources including computer labs, excellent library, and archives;
- opportunity for students to broaden their knowledge and experience through exposure and participation in other CIAS programs, and also other Colleges including Liberal Arts;
- good network with alumni, especially through annual newsletter;
- use of graduate students as teaching assistants.

The weaknesses of the BFA in Glass program include:

- need to expose students to more of what is going on outside in the craft world;
- need for additional funds to increase visiting artist program, field trips, trips to conferences for both faculty and students;
- the Glass Blowing Studio has excellent equipment but needs more space;
- need for additional technical support to deal with ever increasing demands from all the major studios;
- Glass needs more studio space to be at the same size in terms of facility with the other major disciplines;
- need to improve integration of artist-in-residence into programs.

e. Plans for Improvement

The plans for improvement of the BFA in Glass program include: seeking additional outside funding sources; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; proposing a designated technician for Glass and other major studios; proposing that Glass acquire additional space to come up to the same facility level as the other major disciplines; seeking funds to support an International Visiting Artist Series; and currently working on a Flame working Studio to prepare students in this discipline.

f. Results from Plans for Improvement

The BFA in Glass program continues to seek additional outside funding sources; we continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc. We have now designated an annual technician for Glass and have acquire additional space to come up to the same facility level as the other major disciplines. We continue to raise and seek funding to support an International Visiting Artist Series. In addition, we have developed an exceptional Flame working studio.

g. Program Outcomes 09 Update

The Glass degree program has completed the planning stages of a major facilities renovation involving the construction of a new building wing to be added to the Booth building. Construction will begin in early 09. The new facility will improve student workflow, provide for additional space and changing program needs, and allow for new glass arts production methods and techniques. Curricular improvements are also being developed in non-facilities courses such as the craft business course sequence. Glass convenes several events to raise funds for conferences, workshops, and the International Visiting Artist Series. We continue to develop strategies to recruit the highest quality students. The program is continuing to improve safety standards by incorporating safety into the curriculum.

MFA in Glass

a. Goals

The MFA in Glass is intended for students who wish to pursue an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from glass. It is for students interested in a career in the field of glass. Many MFA candidates have an interest in teaching at the college level.

b. Compliance

The Glass MFA Program is in full compliance with the NASAD standards for the degree. Students must take 36 credits in their major studio, 18 credits in an additional studio setting, 18 credits in thesis studio preparation and 4 credits in thesis review and consultation resulting in a total of 76 credits or 84% of major studio and related areas. The specifics of these courses and all of the others are explained in great detail in the SAC Graduate Handbook.

c. Issues Specific to Graduate Programs (see MFA in Ceramics)

d. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolios, the exhibitions of their work, high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. As professionals and experts in their field of research the graduates have mastered the material and technique, developed their personal aesthetic, expanded and refined their conceptual abilities and are now prepared to begin a serious career. Many graduates go on to begin careers as teachers at the college level, directors of public and private studios and strong independent studio artists.

e. Strengths and Weaknesses

The strengths of the MFA in Glass program include:

- two major faculty in Major Studio;
- faculty with diverse experience and international reputations in the field;
- a sound philosophical approach to craft which combines a high level of craftsmanship with material sensibility and the development of personal ideas;
- emphasis on professional practices;
- good facilities;
- developing, building and maintaining a sense of community;
- contacts in the professional world outside the academic arena.

The weaknesses of the MFA in Glass program include:

- need for additional technical support to deal with ever increasing demands from all the major studios;
- need for more graduate studio space;
- need to expose students to more visiting artists and for international exchanges;
- increased funds for faculty and students to travel to professional conferences;
- need for an International Visiting Artists Series.

f. Plans for Improvement

The plans for improvement of the MFA in Glass program include: seeking additional outside funding sources including seeking funds for a Visiting Artist Series and developing plans for international exchange; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the

highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; developing plans for extended studio space for graduate students; seeking funds to enable faculty and students to participate in professional conferences; and continuing to enhance the program and better communicate with our alumni.

g. Results from Plans for Improvement

The MFA in Glass program continues to seek and raise additional outside funding; this includes funds for a Visiting Artist Series and developing plans for international exchange. We continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality of applicants and developed creative ways to bring the outside world in to us through exchanges, alumni visits, etc. Through creative planning, we have developed extended studio space for graduate students. We continue to seek funds to enable faculty and students to participate in professional conferences. Through the development of an email/mailing list, as well as the School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program.

h. Program Outcomes 09 Update

In addition to improvements listed under BFA in Glass, we have accelerating the recruiting process for attracting applicants to the MFA degree program. We continue to seek funding to enable faculty and students to participate in professional conferences and enhance the program. Through networking outside the Institute the faculty have created a number of

residency opportunities for students and recent graduate. Through the development of an email/mailing list, as well as the completion of a School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program. We continue seeking additional scholarship support through the capital campaign to improve student retention and stipend assistance.

BFA in Metals

a. Goals

The BFA in Metals is an intensive and demanding investigation of the conception, design and/or construction of objects created primarily in metal. It is intended for students who wish to pursue a career in the field of metal-working and/or jewelry. It explores this in terms of function, craftsmanship and its potential for personal expression. This also prepares students for further training in the field, including graduate study.

b. Compliance

The Metals BFA Program is in full compliance with the NASAD standards for the degree. Students receive a strong foundation in a variety of techniques developing skills and a material sensibility that are expanded upon as they progress through their major. Technical experiences are combined with design and aesthetic assignments to enhance the student's ability to creatively solve problems. The Metals Program focuses on a wide range of educational experiences that span the field from jewelry to hollow ware to sculpture. In addition, there is ongoing contact with the professional field through field trips to professional studios, galleries, museums, etc. and exposure to visiting artists. Throughout the four years skills are expanded

upon and developed in increasingly sophisticated design problems, which develop the students' understanding and competence in dealing with functional issues and outstanding craftsmanship, while also providing the opportunity for more investigation of aesthetics and personal expression. In the upper class years students are given increasingly more opportunities to explore and investigate particular personal interests which might lead to future career or graduate school paths. They also investigate personal sources of inspiration for their work. In addition they take a series of carefully planned business classes that help prepare them to negotiate their respective fields as a serious career. The program culminates with the Senior Exhibition. This is an exhibition representative of the body of work that the students have created while at school. It takes place at a local gallery, and is organized and implemented by the students' professional involvement.

c. Results

The results of the Metals Program are very successful and can be seen in the quality of the students' work, their professional portfolio packages, the exhibitions of their work, the high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. The active nature of our alumni is evidenced in the annual newsletter.

d. Strengths and Weaknesses

The strengths of the BFA in Metals program include:

- a carefully developed and sequenced program of study;
- good equipment and facilities;
- professionally active faculty who are committed teachers;

- diverse perspectives and approaches to their work on the part of the faculty;
- commitment to the integration of fine craftsmanship with personal expression;
- dedicated studio space for all major students;
- a positive and nurturing environment that fosters individual growth within a cooperative community;
- visiting artists, speakers, field trips and interaction with other metals educational institutions;
- opportunities for students to exhibit their work;
- Bevier and NTID Galleries offer students both opportunity to see professional exhibitions and to use the galleries for their exhibitions;
- RIT resources including computer labs, excellent library, and archives;
- opportunity for students to broaden their knowledge and experience through exposure and participation in other CIAS programs, and also other Colleges including Liberal Arts;
- good network with alumni, especially through annual newsletter;
- use of graduate students as teaching assistants.

The weaknesses of the BFA in Metals program include:

- need to expose students to more of what is going on outside in the craft world;
- need for additional funds to increase visiting artist program, field trips, trips to conferences for both faculty and students;
- the Metals Studio has excellent equipment but needs more space;
- need for additional technical support to deal with ever increasing demands from all the major studios;
- need for some additional equipment to compete effectively in the field.

e. Plans for Improvement

The plans for improvement of the BFA in Metals program include: seeking additional outside funding sources; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; and seeking funds to support an International Visiting Artist Series.

f. Results from Plans for Improvement

The BFA in Metals program continues to seek additional outside funding sources; we continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc. In addition, we continue to seek funds to support an International Visiting Artist Series.

g. Program Outcomes 09 Update

The Metals degree program has completed the planning stages of a major facilities renovation involving the construction of a new building wing to be added to the Booth building. Construction will begin in early 09. The new facility will improve student workflow and provide for additional space and changing program needs. Curricular improvements are also being developed in non-facilities courses such as the craft business course sequence. Through networking, the Metals faculty is capitalizing on their strong reputation outside the Institute to initiate a number of internships, coops and employment opportunities for Metals students. The

Metals program is continuing to recruit the highest quality students from international sources. The program is continuing the process of improvement of safety standards and incorporating safety into the curriculum.

MFA in Metals

a. Goals

The MFA in Metals is intended for students who wish to pursue an intensive and demanding investigation of the conception, design and/or construction of objects created primarily in metal. It is for students interested in a career in the various fields of metals. Many MFA candidates have an interest in teaching at the college level.

b. Compliance

The Metals MFA Program is in full compliance with the NASAD standards for the degree. Students must take 36 credits in their major studio, 18 credits in an additional studio setting, 18 credits in thesis studio preparation and 4 credits in thesis review and consultation resulting in a total of 76 credits or 84% of major studio and related areas. The specifics of these courses and all of the others are explained in great detail in the SAC Graduate Handbook.

c. Issues Specific to Graduate Programs (see MFA in Ceramics)

d. Results

The results of the Metals Program are very successful and can be seen in the quality of the students' work, their professional portfolios, the exhibitions of their work, the high degree of success they enjoy in the field following graduation and the recognition in the field of RIT

graduates. As professionals and experts in their field of research the graduates have mastered the material and technique, developed their personal aesthetic, expanded and refined their conceptual abilities and are now prepared to begin a serious career. Many graduates go on to begin careers as teachers at the college level, directors of public and private studios and strong independent studio artists.

e. Strengths and Weaknesses

The strengths of the MFA in Metals program include:

- two major faculty in Major Studio;
- faculty with diverse experience and international reputations in the field;
- a sound philosophical approach to craft which combines a high level of craftsmanship with material sensibility and the development of personal ideas;
- emphasis on professional practices;
- good facilities;
- developing, building and maintaining a sense of community;
- contacts in the professional world outside the academic arena.

The weaknesses of the MFA in Metals program include:

- need for additional technical support to deal with ever increasing demands from all studios;
- need for more graduate studio space;
- need to expose students to more visiting artists and for international exchanges;
- increased funds for faculty and students to travel to professional conferences;
- need for an International Visiting Artists Series.

f. Plans for Improvement

The plans for improvement of the MFA in Metals program include: seeking additional outside funding sources including funds for a Visiting Artist Series and developing plans for international exchange; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; developing plans for extended studio space for graduate students; seeking funds to enable faculty and students to participate in professional conferences; and continuing to enhance the program and better communicate with our alumni.

g. Results from Plans for Improvement

The MFA in Metals program continues to seek additional outside funding sources including funds for a Visiting Artist Series and international exchange. We continue to access and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality of applicants and develop creative ways to bring the outside world to us through exchanges, alumni visits, etc. Through creative use of space we have extended the studios for graduate students. We continue to seek funds to enable faculty and students to participate in professional conferences. Through the development of an email/mailing list, as well as the School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program.

g. Program Outcomes 09 Update

In addition to improvements listed under BFA in Glass, we have accelerating the recruiting process for attracting applicants to the MFA degree program. We continue to enjoy a high degree of success in actively placing students in the Metal Arts professions. Through the development of an email/mailing list, as well as the completion of a School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program. We continue seeking additional scholarship support through the capital campaign to improve student retention and stipend assistance.

BFA in Wood

a. Goals

The BFA in Wood is intended for students who wish to pursue a career in the various fields of woodworking and furniture design. It is an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from wood, with a strong emphasis on furniture. It explores this in terms of function, craftsmanship and its potential for personal expression. This also prepares students for further training in the field, including graduate study.

b. Compliance

The BFA Wood Program is in full compliance with the NASAD standards for the degree. In the freshman year students engage in an intensive study of design, basic design principles and theory, independent of an emphasis in one particular medium. They also have, through the Freshmen Elective offerings, the opportunity to begin an introduction to their major, or, if they are still in process of making that decision, the opportunity to investigate several different major

options. In the sophomore year there is a strong emphasis in the major studio on the effective use of hand tools and techniques leading to an in-depth understanding of the material, basic tools and techniques and processes to produce work from concept to finished object. Throughout the four years these skills are expanded upon and developed in increasingly sophisticated design problems, which develop the students' understanding and competence in dealing with functional issues and outstanding craftsmanship, while also providing the opportunity for more investigation of aesthetics and personal expression. In the upper class years students are given increasingly more opportunities to explore and investigate particular personal interests which might lead to future career or graduate school paths. They also look extensively at artists in many different fields and investigate personal sources of inspiration for their work. In addition they take a series of carefully planned business classes that help prepare them to negotiate their respective fields as a serious career. The program culminates with the Senior Exhibition. This is an exhibition representative of the body of work that the students have created while at school. It takes place at a local gallery, and it is organized and implemented by the students' professional involvement.

c. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolio packages, the exhibitions of their work, high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. We have a very strong presence in the field, and the active nature of our alumni is evidenced in the annual newsletter.

d. Strengths and Weaknesses

The strengths of the BFA in Wood program include:

- a carefully developed and sequenced program of study;
- professionally active faculty who are committed teachers;
- range of expertise amongst faculty;
- diverse perspectives and approaches to their work on the part of the faculty;
- commitment to the integration of fine craftsmanship with personal expression;
- dedicated studio space for all major students;
- strong sense of community at both the department and the school level;
- visiting artist, speakers program;
- opportunities for students to exhibit their work;
- RIT resources including computer labs, excellent library, and archives;
- opportunity for students to broaden their knowledge and experience through exposure and participation in other CIAS programs, and also other Colleges including Liberal Arts;
- good network with alumni, especially through annual newsletter;
- use of graduate students as teaching assistants;
- AOS is totally integrated with the Wood BFA Program.

The weaknesses of the BFA in Wood program include:

- need to expose students to more of what is going on outside in the craft world;
- need for additional funds to increase visiting artist program, field trips, trips to conferences for both faculty and students;

- need for additional technical support to deal with ever increasing demands from all the major studios;
- need to improve integration of artist-in-residence into programs.

e. Plans for Improvement

The plans for improvement for the BFA in Metals program include: seeking additional outside funding sources; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; and developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.

f. Results from Plans for Improvement

The BFA in Wood program continues to seek additional outside funding sources; we continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality applicants; and, develop creative ways to bring the outside world to us through exchanges, alumni visits, etc.

g. Program Outcomes 09 Update

The Wood degree program continues to improve the curricular content and structure of course offerings, and to identify changing program needs. Curricular improvements are also being developed in non-facilities courses such as the craft business course sequence. Through networking, the Wood faculty is capitalizing on their strong reputation outside the Institute to initiate a number of internships, coops and employment opportunities for Wood students. The Wood program is continuing to recruit the highest quality students. Equipment and studio

furnishings are continuing to be upgraded and replaced on an annual cycle coinciding with capital budget acquisitions. The program is continuing the process of improvement of safety standards and incorporating safety into the curriculum.

MFA in Wood

a. Goals

The MFA in Wood is intended for students who wish to pursue an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from wood. It is for students interested in a career in the various fields of woodworking and furniture design. Many MFA candidates have an interest in teaching at the college level.

b. Compliance

The Wood MFA Program is in full compliance with the NASAD standards for the degree. Students must take 36 credits in their major studio, 18 credits in an additional studio setting, 18 credits in thesis studio preparation and 4 credits in thesis review and consultation resulting in a total of 76 credits or 84% of major studio and related areas. The specifics of these courses and all of the others are explained in great detail in the SAC Graduate Handbook.

c. Issues Specific to Graduate Programs (see MFA in Ceramics)

d. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolios, the exhibitions of their work, high degree of success they enjoy in the field following graduation and the recognition in the field of RIT

graduates. As professionals and experts in their field of research the graduates have mastered the material and technique, developed their personal aesthetic, expanded and refined their conceptual abilities and are now prepared to begin a serious career. Many graduates go on to create careers as teachers at the college level, directors of public and private studios and strong independent studio artists.

e. Strengths and Weaknesses

The strengths of the MFA in Wood program include:

- two major faculty in Major Studio;
- faculty with diverse experience and international reputations in the field;
- a sound philosophical approach to craft which combines a high level of craftsmanship with material sensibility and the development of personal ideas;
- emphasis on professional practices;
- good facilities;
- developing, building and maintaining a sense of community;
- contacts in the professional world outside the academic arena.

The weaknesses of the MFA in Wood program include:

- need for additional technical support to deal with ever increasing demands from all the major studios;
- need for more graduate studio space;
- need to expose students to more visiting artists and for international exchanges;
- increased funds for faculty and students to travel to professional conferences;

- need for an International Visiting Artists Series.

f. Plans for Improvement

The plans for improvement of the MFA in Wood program include: seeking additional outside funding sources including funds for a Visiting Artist Series and developing plans for international exchange; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.; developing plans for extended studio space for graduate students; seeking funds to enable faculty and students to participate in professional conferences; and continuing to enhance the program and better communicate with our alumni.

g. Results from Plans for Improvement

The MFA in Wood program continues to seek additional outside funding sources including funds for a Visiting Artist Series and continues to develop plans for international exchange. We continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field. We continue our work to recruit the highest quality of applicants; developing creative ways to bring the outside world to us through exchanges, alumni visits, etc. We continue to develop plans for extended studio space for graduate students and seek funds to enable faculty and students to participate in professional conferences. Through the development of an email/mailing list, as well as the School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program.

h. Program Outcomes 09 Update

In addition to improvements listed under BFA in Wood, we have accelerating the recruiting process for attracting applicants to the MFA degree program. Through the quality and rarity of our program we continue to enjoy a high degree of success in actively placing students in the Wood Arts professions. Through the development of an email/mailing list, as well as the completion of a School for American Crafts web page and annual newsletter we continue to better communicate with our alumni and enhance the program. We continue seeking additional scholarship support through the capital campaign to improve student retention and assistance.

AOS (Associate of Occupational Studies) in Wood

a. Goals

The AOS in Wood is intended for students who wish to pursue a career in the various fields of woodworking and furniture design. It is an intensive and demanding investigation of the conception, design and/or construction of objects created primarily from wood, with a strong emphasis on furniture. It explores this in terms of function, craftsmanship and its potential for personal expression. Because of its two year time frame and absence of a liberal arts component, this degree is well suited to a variety of prospective students including:

-people wanting to make a career change to the field of woodworking;

-those with related or unrelated other degrees whose primary goal is an intensive and time limited involvement in a wood program;

-people unable, for financial or other reasons, to commit to 4-year program of study;

-those desiring an alternative to a graduate program.

b. Compliance

The AOS Wood Program is in full compliance with the NASAD standards for the degree. In the first year students engage in an intensive study of design and basic design principles, with a particular emphasis on three-dimensional design. In addition in the major studio they learn how to use and care for basic hand tools (e.g. chisels, planes, and scrapers), and begin to explore the technical and visual potential of wood. As they progress with these skills, they are slowly introduced to woodworking machinery. Machines such as table saws, jointers and mortisers augment, but do not replace, hand tools. By the end of the first year, students are acquainted with a wide array of equipment and techniques employed by professional woodworkers. In their second year students hone their skills by making increasingly complex and refined pieces of furniture. They are given increasingly more opportunities to explore and investigate particular personal interests which might lead to future career or graduate school paths. They also look extensively at artists in many different fields and investigate personal sources of inspiration for their work. In addition they take a series of carefully planned business classes that help prepare them to negotiate their respective fields as a serious career.

c. Results

The results of the program are very successful and can be seen in the quality of the students' work, their professional portfolio packages, the exhibitions of their work, the high degree of success they enjoy in the field following graduation and the recognition in the field of RIT graduates. We have a very strong presence in the field, and the active nature of our alumni is evidenced in the annual newsletter. A larger number of AOS students have been electing to

continue on to obtain their BFA degree. This is further evidence of student success and satisfaction with the program.

d. Strengths and Weaknesses

The strengths of the AOS in Wood program include:

- AOS is now totally integrated with the Wood BFA Program;
- AOS is now completely in line with the BFA in terms of credits received for work done;
- a carefully developed and sequenced program of study;
- professionally active faculty who are committed teachers;
- range of expertise amongst faculty;
- diverse perspectives and approaches to their work on the part of the faculty;
- commitment to the integration of fine craftsmanship with personal expression;
- dedicated studio space for all major students;
- strong sense of community at both the department and the school level;
- visiting artist, speakers;
- opportunities for students to exhibit their work;
- RIT resources including computer labs, excellent library, and archives;
- opportunity for students to broaden their knowledge and experience through exposure and participation in other CIAS programs, and also other Colleges including Liberal Arts;
- good network with alumni, especially through annual newsletter;
- use of graduate students as teaching assistants.

The weaknesses of the AOS in Wood program include:

- need to expose students to more of what is going on outside in the craft world;
- need for additional funds to increase visiting artist program, field trips, trips to conferences for both faculty and students;
- need for additional technical support to deal with ever increasing demands from all the major studios;
- need to improve integration of artist-in-residence into programs.

f. Plans for Improvement

The plans for improvement of the AOS in Wood program include: seeking additional outside funding sources; constantly assessing and evaluating curriculum and facilities in relation to the changing demands and nature of the field; continuing our work to recruit the highest quality of applicants; and developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.

g. Results from Plans for Improvement

The AOS in Wood program continues to seek additional outside funding sources; we continue to assess and evaluate the curriculum and facilities in relation to the changing demands and nature of the field We continue our work to recruit the highest quality applicants and developing creative ways to bring the outside world to us through exchanges, alumni visits, etc.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Wood.

AAS Degrees in Ceramics, Glass, Metals, and Wood

The AAS degrees are constituted by the first two years of the BFA degrees. Over the past five years, there have been few graduates of the AAS programs, and they are not in any way a primary objective of the School for American Crafts. They are, however, carefully structured and sequenced so that a student wishing to leave the program at the end of those first two years will have developed good basic skills in design and construction. They are then prepared to seek employment or transfer to another school with related and/or compatible programs. These are compelling reasons why we should retain it as an option for students. It in no way diminishes our ability to deliver a quality education through any of the other degree offerings.

MST Degrees in Ceramics, Glass, Metals, and Wood

There have been no graduates from these programs in the last five years. We believe it is time to discontinue the MST programs in the School for American Crafts. They are not consistent with the goals and objectives of our MFA programs. MFA students and MST students have difficulty coexisting in the graduate studio environment.

National Technical Institute for the Deaf (NTID)

General Objectives for Art & Computer Design Programs at NTID

The general goal of the NTID Art & Computer Design programs is to prepare deaf and hard of hearing students for careers within the field of art and design. NTID offers the Associate in Applied Science (AAS) degree and the Associate in Occupational Studies (AOS) degree. The two degrees require identical course work in the major, the only distinction being the nature of the general studies component. The AAS degree requires twenty credits of course work in the

College of Liberal Arts, and the AOS degree requires English course work provided within NTID. Common to both curricula is a first year foundation in essential art/design competencies such as drawing, design, and creative problem solving, as well as introductory computer graphics. Continuation in the program exposes students to more applied problem solving with an overall emphasis on developing effective design solutions. Training in the use of computer technology is supportive of this programmatic aim and is not a primary program goal in itself.

AOS and AAS in Art & Computer Design

a. Goals

The goal of the AOS in Art & Computer Design is to prepare students for direct employment. The goal of the AAS in Art & Computer Design is to prepare students for transfer to BFA programs in art and design.

b. Compliance

The AOS and AAS programs in Art & Computer Design are in compliance with NASAD standards relating to the balance between studies in the visual arts and general studies. As the curricular charts (Appendix IV) indicate, both the AOS and AAS degrees meet NASAD standards. Studies in art/design studio, art/design history, and art/design related electives comprise more than the minimum of 65%. General studies comprise the remainder of the two curricula. Within the elective component, both degree programs include a required concentration of 8-10 credits in art/design and related courses. Students can choose from three available concentrations (Print Design, Production, and Web Design) and can then enroll in open electives to complete the remaining 2-4 credits of the 12-credit elective component.

c. Results

The AOS and AAS programs in Art & Computer Design are generally successful in meeting their goals and objectives. Enrollment has been steadily increasing over the past decade, and graduates pursue either permanent employment or continued studies with an acceptable level of success. In an effort to achieve excellence in every respect, the department is involved in an outcomes assessment process whereby students' final pre-graduation portfolios are assessed in order to determine the success of the curriculum leading up to the portfolio preparation.

d. Strengths and Weaknesses

The strengths of the AOS and AAS programs in Art & Computer Design include:

- a high degree of individual attention paid to each student;
- the highly systematic organization of the curriculum;
- class sizes ranging from 8 to 12 students allowing for a high degree of student/faculty interaction;
- curricula based on a set of clearly defined skills delineating relationships among various courses;
- performance based courses fostering consistent and explicit expectations for students;
- a model for outcomes assessment within NTID.

The weaknesses of the AOS and AAS programs in Art & Computer Design include:

- student perception of general studies as a distraction from their primary focus on the major;
- English language difficulty particularly for AOS students leading to the ongoing challenge of ensuring that graduates have command of professional level language skills;

- imperfect fit between AAS course work and the expectations of the BFA programs into which students want to transfer;
- need for greater clarity regarding transfer requirements and opportunities that would assist students in making realistic choices about BFA programs.

e. Plans for Improvement

Faculty has an ongoing task of reinforcing with students the critical nature of general studies. In a continuing effort to reinforce English language skills, faculty in Art & Computer Design regularly include reading and writing tasks as an integral part of art/design courses and actively assist students who find these tasks difficult. Of the three concentrations noted earlier, the Production option attracts few students. Although knowledge of production processes is a necessary skill for a practicing designer, it may be that this set of skills would be more appropriately learned as part of other required course work. It is anticipated that the faculty will resolve this question and initiate any necessary curriculum changes. The department is engaged in outcomes assessment based on faculty review of pre-graduation portfolios. Although the process has been used for many years, systematic data collection did not begin until early 2002. The portfolio review process is organized so that reviewers see what the student is capable of presenting without direct faculty guidance. Because the data collection has a very short history, it is too early to reach any conclusions. However, some early results are suggesting that a majority of students' portfolios fall short of program expectations. After feedback from faculty, most students make the necessary adjustments resulting in professional level portfolios. However, the faculty are interested in fostering independent judgment and quality control. If this performance continues to be evident over a number of years, the faculty will undoubtedly take

some action to address the issue. In the interim, the department will continue to monitor these assessment results.

f. Results from Plans for Improvement

The faculty in the department has continued monitoring assessment result of student's portfolios through the portfolio review process. The program continues to reinforce English language and communication skills particularly in reading and writing.

g. Program Outcomes 09 Update

Portfolio monitoring continues to be an integral measure of student progress. Emphasis is placed of communication skills to compliment artistic skills.

School of Art

General Objectives for the School of Art

a. To educate informed, inventive, contemporary, thinking artists.

b. To prepare individuals to create, produce and appreciate the visual arts as the experience a constantly changing and diverse world.

c. To encourage freedom of thought, imagination and inquiry.

d. To educate individuals to lead their profession in theory, technology and application of the breadth of visual communications.

e. To educate students for professional practice or further study.

AAS in Fine Arts Studio

a. Goals

The AAS in Fine Arts Studio is primarily intended for students in programs that share the foundation program with Fine Arts Studio who want a basic understanding of the Fine Arts' field including the use of fine art materials and techniques along with developing their expressive abilities. Students who have begun the BFA in Fine Arts Studio but are unable to complete the full four years are also eligible to receive the AAS in Fine Arts Studio upon completion of its requirements. No students are accepted solely into the AAS program.

b. Compliance

From the general foundation year, students move into the Fine Arts Studio sophomore core in which they take one course each in painting, printmaking, sculpture, and drawing. The discussions, slide presentations, field trips to exhibitions, and practical application of materials and processes set the tone for the philosophical, historical and expressive examination of each of these areas and the fine arts, in general.

c. Results

Students in many of the more applied disciplines find that these fine arts classes provide both opportunities for personal expression and an a chance to enhance their creativity as applied to their major degree direction.

d. Strengths and Weaknesses

The strengths of the AAS in Fine Arts Studio program include:

- offering a valuable option to students in other programs.
- offering a degree to those unable to complete the full BFA program.

There are no weaknesses for the AAS in Fine Arts Studio program.

e. Plans for Improvement

This option continues to be successful and viable. Any changes will be as a result of changes and evolution of the BFA program.

f. Results from Plans for Improvement

Results coincide with those listed for the BFA in Fine Arts Studio.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Fine Arts Studio.

BFA in Fine Arts Studio

a. Goals

The BFA in Fine Arts Studio is intended for those interested in the development and mastery of skills necessary for careers as fine artists and teachers and or graduate study. These candidates will develop conceptual and technical skills enabling them to achieve professional competence in the visual fine arts

b. Compliance

From the general foundation year, students move into the Fine Arts Studio sophomore core in which they take one course each in painting, printmaking, and sculpture along with two advanced drawing classes. The discussions, slide presentations, field trips to exhibitions, and practical application of materials and processes set the tone for the philosophical, historical and

expressive examination of each of these areas. Taking an additional class in painting, printmaking or sculpture begins the work in the student's chosen area of focus. For the next two years the Fine Arts Studio program works toward enabling students to develop conceptual, analytical, and technical skills, which will allow them to visualize and realize works of art. Exploring a variety of media and their possible applications towards this end is emphasized. Students in the program work with faculty with varied and different viewpoints in their studio classes. The faculty challenges the critical thinking and art making of students while encouraging independent activity and directions. Aside from specific studio activity, field trips to view art work in person, individual and group involvement in exhibitions, and visiting artists' presentations and workshops round out the program.

c. Results

Student achievement is assessed on a regular basis by the faculty through individual and class critiques and the submission of final work for grades. Overall quality is reviewed through various individual and group exhibition opportunities during the school year. Student work is exhibited in the Wallace Memorial Library, the Student Alumni Union, and in display cases throughout the college. Gallery r, the school's student-run gallery in the art district of downtown Rochester, provides the best ongoing source of feedback from students, faculty, and the general public on the quality of student work. In addition, the undergraduate student honors show in Bevier Gallery on campus offers the opportunity to view the best of what is produced on an annual basis. Alumni continuously inform us of their successes once they graduate, especially, those who are having exhibitions of their work. Contact with alumni for a recent alumni show revealed resumes demonstrating their significant achievements including national exhibitions

and awards along with other outstanding professional accomplishments. Many of our students go on to graduate school; some staying on for teacher preparation in our own art education program while others pursue MFAs at other institutions. There is regular local news coverage of the exhibitions and accomplishments of present and former students.

d. Strengths and Weaknesses

The strengths of the BFA in Fine Arts Studio program include:

- professional and varied faculty;
- individual and collective studio spaces for students;
- specialized computer equipment in both painting and printmaking;
- vast technological resources of CIAS and RIT;
- strong emphasis on conceptual development supported by expertise in a wide variety of media to enable execution of ideas;
- resources of the Rochester area (Memorial Art Gallery, Eastman House, Strong Museum, private art galleries and collections) and proximity to Toronto;
- exhibition opportunities for students;
- guest artists and speakers, including very distinguished artists invited through our collaboration with the Print Club of Rochester and the Memorial Art Gallery;
- state of the art non-toxic printmaking studio (best in the world) makes it an international center for the collection and dissemination of recent knowledge and practice with international faculty exchanges;
- open figure drawing sessions support class work as well as independent explorations in drawing;

- five hour studio blocks allow for sustained involvement;
- student run Gallery r (exhibition and gallery management opportunities).

The weaknesses of the BFA in Fine Arts Studio program include:

- need to articulate the relationships between the various focus areas better to make sure students do not fall through the cracks;
- inadequate sculpture facilities;
- need for better publicity and recruitment;
- poor and unsystematic tracking of graduates;
- high tuition;
- quarter system;
- liberal arts not related enough to the arts.

e. Plans for Improvement

The plans for improvement of the BFA in Fine Arts Studio program include: having regular Fine Arts Studio faculty meetings to discuss student and program needs; continuing to improve equipment and studio furnishings through capital budget requests; seeking to improve sculpture facilities; keeping website and brochures up to date; and exploring a list-serve for tracking graduates.

f. Results from Plans for Improvement

The number of faculty meetings in Fine Arts Studio has doubled per annum. This has aided our ability to improve the curricular content and structure of course offerings, and to identify changing program needs. Equipment and studio furnishings are now being upgraded and

replaced on an annual cycle coinciding with capital budget acquisitions. We are continuing the process of improvement to the sculpture facilities and are in full compliance with RIT safety standards. Fine Arts Studio is participating in the redesign and engineering of a new coordinated website for CIAS.

g. Program Outcomes 09 Update

Fine Arts Studio continues to improve the curricular content and structure of course offerings, and to identify changing program needs. Improvements include an increased emphasis on group and community art experiences. Emphasis is also being placed on student application to and participation in local, regional, and national competitions, exhibitions, workshops, fellowships, etc. A greater emphasis is being placed on the relationship between the artist and society through community participation. Feedback from these experiences is being sought out more aggressively. Equipment and studio furnishings are continuing to be upgraded and replaced on an annual cycle coinciding with capital budget acquisitions and are continuing the process of improvement of safety standards and incorporating safety into the curriculum.

MFA in Fine Arts Studio

a. Goals

The MFA in Fine Arts Studio is intended for those who hold an undergraduate degree with significant studio experience and are interested in the mastery of skills necessary for careers as fine artists and/or college level teaching. These candidates will develop analytic, conceptual and technical skills enabling them to achieve professional competence in the visual fine arts.

The program aims at open, independent, creative work that meets professional standards in the field.

b. Compliance

The Fine Arts Studio program works toward enabling students to develop conceptual, analytical, and technical skills, which will allow them to visualize and realize works of art. During their first year students experiment and explore ideas, media and approaches to expand their aesthetic foundation. Students in the program work with faculty with varied and different viewpoints in their studio classes. The faculty challenges the critical thinking and art making of students while encouraging independent activity and direction. The studio classes supported by a variety of humanity selections provide the basis for the critical thinking necessary for full understanding and mastery of the fine arts. The second year is devoted to the development of a thesis. Under the guidance of a faculty committee, the student develops a thesis proposal, researches the topic, produces a body of work as outlined in the proposal, exhibits the work in a thesis show, and prepares a written report providing the context for the body of work. Aside from specific studio activity, field trips to view art work in person, individual and group involvement in exhibitions, and visiting artists' presentations and workshops round out the program.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Candidates for the program are, generally, expected to hold a bachelor degree including 75 quarter credits of studio work from an accredited college or university. International students' credentials are evaluated by the registrar's office of the university or through an

accredited evaluation service to assure their equivalence to a U.S. bachelor degree. In addition, evidence of professional potential is determined by a Fine Arts Studio faculty committee's review of the candidates creative production through their portfolio, undergraduate records, letters of recommendation, and statement of goals. This committee makes acceptance recommendations to the chair of the school, who makes the final decision. Students with some deficiencies in studio preparation may be admitted conditionally. These conditions may have to be met prior to matriculation or, depending on the type of deficiency, met concurrently along with the regular curriculum after matriculation. Credit taken under these arrangements ordinarily would not count toward the degree.

ii. Research and professional tools required in the program

Students in the MFA in Fine Arts Studio are required to take Forms of Inquiry and Graduate Forum to prepare them in critical thinking, research methods and writing about art. These courses are part of the degree requirements and credit is awarded toward the degree.

iii. Policy for comprehensive review of graduate degree candidates

Students must maintain a 3.0 cumulative grade point average. Grades of less than a "C" do not count toward the fulfillment of degree requirements. Once the student enters the thesis process, their faculty committee reviews progress on a regular basis. This thesis committee is responsible for approval of both the body of work produced by the student in meeting the demands for professional production and approval of a written research report. The thesis work culminates in a thesis exhibition. The thesis, therefore, is the major vehicle for a comprehensive review of student performance.

iv. Candidacy and final project requirements for the program

The thesis is the final project for the MFA. In addition to its importance as a measure of student achievement, it should break new ground and contribute to the field of art. It should demonstrate technical mastery as well as aesthetic discernment. The written report is not meant to document the production of the art work but to be an integral and dynamic part of the culminating experience. It, generally, places the work in some historical context and describes the relevance of the work for the individual in relation to contemporary art. The work or a significant portion of it is required to be shown publicly, usually, in a graduate thesis show in the Bevier Gallery.

d. Results

Student achievement is assessed on a regular basis by the faculty through individual and class critiques and the submission of final work for grades. Graduate thesis shows in the Bevier Gallery are the basis for a culminating evaluation of student success. The student must present a formal defense of the work in the gallery. The general public's response to the work is also a useful gauge for the overall quality of the program. Overall quality is reviewed through various individual and group exhibition opportunities during the school year. Student work is exhibited in the Wallace Memorial Library, the Student Alumni Union, and in display cases throughout the college. Gallery r, the school's student-run gallery in the art district of downtown Rochester, provides the best ongoing source of feedback from students, faculty, and the general public on the quality of student work. Alumni continuously inform us of their successes once they graduate, especially, those who are having exhibitions of their work. Contact with alumni for a

recent alumni show revealed resumes demonstrating their significant achievements including national exhibitions, awards, and publications along with other outstanding professional accomplishments. Many of our MFA graduates go on to teach at universities around the country. In fact, most of the recent graduates who focused on printmaking are now teaching in that field. There is regular local news coverage of the exhibitions and accomplishments of present and former students.

e. Strengths and Weaknesses

The strengths of the MFA in Fine Arts Studio program include:

- professional and varied faculty;
- individual and collective studio spaces for students;
- specialized computer equipment in both painting and printmaking;
- vast technological resources of CIAS and RIT;
- strong emphasis on conceptual development supported by expertise in a wide variety of media to enable execution of ideas;
- resources of the Rochester area (Memorial Art Gallery, Eastman House, Strong Museum, private art galleries and collections) and proximity to Toronto;
- exhibition opportunities for students;
- guest artists and speakers, including very distinguished artists invited through our collaboration with the Print Club of Rochester and the Memorial Art Gallery;
- state of the art non-toxic printmaking studio (best in the world) makes it an international center for the collection and dissemination of recent knowledge and practice with international faculty exchanges;

- open figure drawing sessions support class work as well as independent explorations in drawing.

The weaknesses of the MFA in Fine Arts Studio program include:

- need to articulate the relationships between the various focus areas to allow greater access to facilities and faculty expertise;
- inadequate sculpture facilities;
- need for better publicity and recruitment;
- poor and unsystematic tracking of graduates;
- high tuition;
- insufficient scholarship support to compete with other schools;
- small graduate student studios;
- too limited humanities offerings.

f. Plans for Improvement

The plans for improvement of the MFA in Fine Arts Studio program include: having regular Fine Arts Studio faculty meetings to discuss student and program needs; continuing to improve equipment and studio furnishings through capital budget requests; seeking scholarship support through the capital campaign; seeking to improve sculpture facilities; keeping website and brochures up to date; and exploring a list-serve for tracking graduates.

f. Results from Plans for Improvement

In addition to improvements listed under BFA in Fine Arts Studio, we are in the process of accelerating the screening process for reviewing applicants to the MFA degree program. This

strategy will allow for a more efficient use of scholarship funds. We are still in the process of seeking additional scholarship support through the capital campaign. Fine Arts Studio is participating in the redesign and engineering of a new coordinated website for CIAS.

g. Program Outcomes 09 Update

In addition to improvements listed under BFA in Fine Arts Studio, we have accelerating the screening process for reviewing applicants to the MFA degree program. This strategy will allow for a more efficient use of scholarship funds. The program has increased emphasis on intercollegiate graduate student activity to improve feedback and exposure to a broadened artist's community. We are still in the process of seeking additional scholarship support through the capital campaign to improve student retention and stipend assistance.

MST (Master of Science for Teachers) in Fine Arts Studio

a. Goals

The MST in Fine Arts Studio is intended for those who hold an undergraduate degree in Art Education and need a masters degree with advanced study in studio art for permanent state teacher certification. It is also available for those who have an undergraduate degree with significant studio experience who are interested in advanced study in the fine arts. These candidates will develop analytic, conceptual and technical skills in the visual fine arts. The program aims at open, independent, creative work.

b. Compliance

The Fine Arts Studio program works toward enabling students to develop conceptual, analytical, and technical skills, which will allow them to visualize and realize works of art. Students experiment and explore ideas, media and approaches to expand their undergraduate aesthetic foundation. Students in the program work with faculty with varied and different viewpoints in their studio classes. The faculty challenges the critical thinking and art making of students while encouraging independent activity and direction. The studio classes supported by a variety of humanity selections provide the basis for the critical thinking necessary in the fine arts.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Candidates for the program generally are expected to hold a bachelor degree including the equivalent of 75 quarter credits of studio work from an accredited college or university. International students' credentials are evaluated by the registrar's office of the university or through an accredited evaluation service to assure their equivalence to a U.S. bachelor degree. In addition, evidence of professional potential is determined by a Fine Arts Studio faculty committee's review of the candidates' creative production through their portfolios, undergraduate records, letters of recommendation, and statement of goals. This committee makes acceptance recommendations to the chair of the School of Art, who makes the final decision. Students with some deficiencies in studio preparation may be admitted conditionally. These conditions may have to be met prior to matriculation or, depending on the type of deficiency, met concurrently with the regular curriculum after matriculation. Credit taken under these arrangements ordinarily would not count toward the degree.

ii. Research and professional tools required in the program

There are no research or professional tools required for the MST other than proven proficiency in fine art materials and processes.

iii. Policy for comprehensive review of graduate degree candidates

Students must maintain a 3.0 cumulative grade point average. Grades of less than a "C" do not count toward the fulfillment of degree requirements. Review of the candidate's progress is an ongoing process where formal reviews occur in classes with both group and individual critiques taking place on a weekly basis. There is a very close relationship between faculty and students where guidance and direction are given but progress and accomplishments are closely monitored.

iv. Candidacy and final project requirements for the program

An optional final project, at the discretion of the student's advisor or at the request of the student, is sometimes part of a student's culminating experience. This is usually in the form of a show of the student's work.

d. Results

Student achievement is assessed on a regular basis by the faculty through individual and class critiques and the submission of final work for grades. Overall quality is reviewed through various individual and group exhibition opportunities during the school year. Student work is exhibited in the Wallace Memorial Library, the Student Alumni Union, and in display cases throughout the college. Gallery r, the school's student-run gallery in the art district of downtown Rochester, provides the best ongoing source of feedback from students, faculty, and the general

public on the quality of student work. Alumni continuously inform us of their successes once they graduate, especially, those who are having exhibitions of their work. Contact with alumni for a recent alumni show revealed resumes demonstrating their significant achievements including national exhibitions, awards, and publications along with other outstanding professional accomplishments. Many of our MST graduates are successful teachers. There is regular local news coverage of the exhibitions and accomplishments of present and former students.

e. Strengths and Weaknesses

The strengths of the MST in Fine Arts Studio program include:

- professional and varied faculty;
- individual and collective studio spaces for students;
- specialized computer equipment in both painting and printmaking;
- vast technological resources of CIAS and RIT;
- strong emphasis on conceptual development supported by expertise in a wide variety of media to enable execution of ideas;
- resources of the Rochester area (Memorial Art Gallery, Eastman House, Strong Museum, private art galleries and collections) and proximity to Toronto;
- exhibition opportunities for students;
- guest artists and speakers, including very distinguished artists invited through our collaboration with the Print Club of Rochester and the Memorial Art Gallery;

- state of the art non-toxic printmaking studio (best in the world) makes it an international center for the collection and dissemination of recent knowledge and practice with international faculty exchanges;
- open figure drawing sessions support class work as well as independent explorations in drawing.

The weaknesses of the MST in Fine Arts Studio program include:

- need to articulate the relationships between the various focus areas to allow greater access to facilities and faculty expertise;
- inadequate sculpture facilities;
- need for better publicity and recruitment;
- poor and unsystematic tracking of graduates;
- high tuition;
- small graduate student studios;
- too limited humanities offerings.

f. Plans for Improvement

The plans for improvement of the MST in Fine Arts Studio program include: having regular Fine Arts Studio faculty meetings to discuss student and program needs; continuing to improve equipment and studio furnishings through capital budget requests; seeking to improve sculpture facilities; keeping website and brochures up to date; and exploring a list-serve for tracking graduates.

f. Results from Plans for Improvement

Results coincide with those listed for the MFA in Fine Arts Studio.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the MFA in Fine Arts Studio.

AAS in Illustration

a. Goals

The AAS in Illustration is primarily intended for students in programs that share the foundation program with Illustration who want a basic understanding of the field of illustration and wish to add some basic knowledge and skill in the practice of illustration. Students who have begun the BFA in Illustration but are unable to complete the full four years are also eligible to receive the AAS in Illustration upon completion of its requirements. No students are accepted solely into the AAS program.

b. Compliance

After the general foundation year, sophomore illustration students move into a common illustration core. The four illustration courses in this core extend the figure drawing begun in the freshman year and introduce basic concepts and approaches to illustration including traditional, digital and dimensional directions. Students begin to learn about problem solving for illustrators, the conceptual framework that illustration is built on.

c. Results

The experience and knowledge received in the AAS in Illustration has greatly enhanced graduates ability to find employment and to be more versatile artists, in general.

d. Strengths and Weaknesses

The strengths of the AAS in Illustration program include:

- offering a valuable option to students in other programs;
- offering a degree to those unable to complete the full BFA program.

There are no weaknesses associated with the AAS in Illustration program.

e. Plans for Improvement

This option continues to be successful and viable. Any changes will be as a result of changes and evolution of the BFA program.

f. Results from Plans for Improvement

Results coincide with those listed for the BFA in Illustration.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Illustration.

BFA in Illustration

a. Goals

The BFA in Illustration is intended for students who wish to pursue a career in illustration, selling art to media, or going on to graduate school for further training in the field or to prepare as teachers.

b. Compliance

After the general foundation year, sophomore illustration students move into a common illustration core. The five illustration courses in this core extend the figure drawing begun in the freshman year and introduce basic concepts and approaches to illustration including traditional, digital and dimensional directions. Reference photography for illustrators has been a part of this core but will now be incorporated in other classes rather than being taught separately. Students begin to learn about problem solving for illustrators the conceptual framework that illustration is built on. The junior year is devoted to the main areas of the field of illustration: book illustration, editorial illustration while expanding on traditional, dimensional and digital illustration methods. Each quarter is the basis for developing concepts, compositions and a sense of what is required in each of these main areas. This is achieved through analysis and critique of students' studio work and weekly assignments. All the assignments focus on the conceptual development and production of art for these areas. Students engage in a variety of techniques: traditional rendering as well as digital technologies. Students also focus on specific courses to broaden their exposure to each of these areas. The senior year is devoted to creating work for a portfolio which can result in the show of student's strength in any one of a number of special markets including cartooning, product rendering, newspaper and other editorial art, book publishing, and illustrations for digital media. It is stressed that seniors make a statement in their

illustrations, showing their personal viewpoint. Marketing and business practices from building a business to contracts, copyright law, ethical standards, and purchase agreements are examined.

c. Results

The successful results of the program are seen in the student portfolios, exhibitions of their work, the work habits and ethics they have developed, and the development of the sense of which area he/she wants to pursue. Many graduates go to work for employers in the field. Our graduates work for Atlantic Monthly, Readers Digest, Buffalo News, Kansas City Star, Saatchi & Saatchi, Chiat Day Advertising, Reebok, Mirage Hotels, and many more. Many find success as independent business people through freelance work. Some students have gone on to graduate school at Syracuse University, Maryland Institute College of Art, and The School of the Art Institute of Chicago among others. Still others exhibit their work in nationally known galleries and win illustration awards in national competitions.

d. Strengths and Weaknesses

The strengths of the BFA in Illustration program include:

- restructuring and constant re-evaluation of the program and its offerings has led to in-depth exposure to contemporary market directions;
- professional level of teaching;
- strong visiting artist component;
- Bevier and Gallery r exhibitions for exposure to all forms of art and to showcase student work;
- instructors' expertise covering all major areas including traditional, dimensional, and digital work;

- highly advanced technology instruction;
- RIT resources including computer and printing technologies and graphic design expertise;
- dedicated, individual workspaces for illustration majors in their 3rd and 4th years;
- fine library and special collections;
- commitment to computer cascade of hardware and continual software upgrades;
- opportunity for students to broaden the knowledge and experience through exposure and participation in other CIAS programs.

The weaknesses of the BFA in Illustration program include:

- lack of a practical and consistent method to maintain contact with graduates;
- poor support for repair and replacement of studio furnishings;
- due to popularity of other CIAS programs there is difficulty in arranging programmatic access to them;
- lack of facilities and equipment to translate traditional illustration media to digital formats;
- recent changes in faculty and curriculum have led to a deterioration of relationships between the various programs in the School of Art.

e. Plans for Improvement

The plans for improvement of the BFA in Illustration program include: constantly assessing and evaluating the curriculum, equipment, and facilities in response to ever changing market demands; recruiting high quality applicants; carefully and critically evaluating applicants to assure high quality students; seeking funding for image digitization needs and other studio improvements; and developing a list-serve system to track graduates.

f. Results from Plans for Improvement

The curriculum for the Illustration program is continually being reviewed and evaluated in reference to changes and innovations in the field. Scrutiny of the quality of student applicants to the program has increased. Studio improvements such as an improved layout of classroom teaching and working space, an increase in equipment and access for image digitization is continuing to take place. Illustration is participating in the redesign and engineering of a new coordinated website for CIAS.

g. Program Outcomes 09 Update

The curriculum for the Illustration program is continually being reviewed and evaluated in reference to changes and innovations in the field. Alumni feedback as well as professional feedback is being sought to improve curriculum. Emphasis is also being placed on student application to and participation in local, regional, and national juried competitions. Curricular-based studio improvements such as an improved layout of classroom teaching and working space are being coordinated with Facilities Management.

BFA in Medical Illustration

a. Goals

Medical illustrators are health science professionals with interdisciplinary education in art, science, communication, and technology. They create visual material to record, disseminate, and enhance the communication of information in the life sciences. Visuals created by the medical illustrator transform scientific data and research concepts into perceptible images for

teaching medical audiences as well as the general public. The medical illustration programs prepare students for a career in academic or research health science centers, industry, or consulting. As members of the health career profession with strong communication skills, medical illustrators work closely with clients to interpret their needs and create visual solutions through effective problem solving. The goal of the BFA in Medical Illustration program is to prepare its graduates for entry into the profession.

b. Compliance

The BFA in Medical Illustration program is in general compliance with NASAD standards. The curriculum of the program is structured to permit students to pursue an individual direction while simultaneously acquiring the skills necessary to enter the profession. Prerequisite and required science courses adequately prepare graduates for placement in the profession. The curriculum includes opportunities to develop traditional and digital illustration skills that meet professional entrance level requirements. Students learn to utilize a systematic instructional design process to develop effective educational materials. Graduates must be able to demonstrate professional and ethical practices. The curriculum includes teaching students to meet management and business practices competencies. In order to properly prepare students for entry into the profession and/or graduate school, students must have some basic college science background. To create this balance and maintain a high level of studio production, students take biology classes along with their art classes. Meeting this need does reduce the number of credits in the program devoted to art history.

c. Results

The BFA in Medical Illustration program has a very successful job placement rate. Positive feedback is received from alumni through the list-serve and from the annual alumni meeting at the AMI conference. Employers regularly make requests for graduates of the program for jobs. Student and graduate work receive positive reactions at AMI conference exhibits.

d. Strengths and Weaknesses

The strengths of the BFA in Medical Illustration program include:

- the Human Gross Anatomy course whose unique content is offered at few, if any, other undergraduate schools;
- the opportunity for direct observation of surgical procedures through formal agreements with two medical centers;
- a broad selection of diverse elective courses including photography, print media, film and animation, information technology, and design;
- access to the libraries at the University of Rochester Edward G. Miner Medical Library and Rush Rhees Library;
- superior contemporary computer facilities and equipment that are an integral part of the program;
- a strong alumni network;
- broad preparation for employment in both the allied health field and related visual art fields;
- flexibility for adapting to changing market and field demands;
- strong school, college, and institute support for faculty development.

The weaknesses of the BFA in Medical Illustration program include:

- the need for microscopes;
- a limited specimen and anatomic material collection.

e. Plans for Improvement

Plans for improvement of the BFA in Medical Illustration program include exploring opportunities to bring in scientific illustrators to augment present program offerings, proposing to purchase microscopes through the annual capital budget process, and developing specimen and anatomic material collections through phased purchases over time.

f. Results from Plans for Improvement

The Medical Illustration computer lab has been updated with new hardware and software. Additional research tools such as microscopes are under consideration for the next capital budget request cycle. The process of improvement to the lab and reference materials is continuing. The facilities and are in full compliance with RIT safety standards. Medical Illustration is participating in the redesign and engineering of a new coordinated website for CIAS.

g. Program Outcomes 09 Update

Medical Illustration has continued seeking participation and feedback from alumni and allied health professionals. Alumni have been incorporated into an email list serve to exchange information and observations. The faculty receives Faculty Enhancement and Development grants to attend conferences resulting in improvements to curriculum. The Medical Illustration computer lab has been updated with new hardware and software. Additional research tools such

as microscopes are under consideration for the next capital budget request cycle. The process of improvement to the lab and reference materials is continuing.

MFA in Medical Illustration

a. Goals

Medical illustrators are health science professionals with interdisciplinary education in art, science, communication, and technology. They create visual material to record, disseminate, and enhance the communication of information in the life sciences. Visuals created by the medical illustrator transform scientific data and research concepts into perceptible images for teaching medical audiences as well as the general public. The medical illustration programs prepare students for a career in academic or research health science centers, industry, or consulting. As members of the health career profession with strong communication skills, medical illustrators work closely with clients to interpret their needs and create visual solutions through effective problem solving. The goal of the MFA in Medical Illustration program is to prepare its graduates for entry into the profession.

b. Compliance

The MFA in Medical Illustration program is in compliance with NASAD standards. The curriculum of the program is structured to permit students to pursue an individual direction while simultaneously acquiring the skills necessary to enter the profession. Prerequisite and required science courses adequately prepare graduates for placement in the profession. The curriculum includes opportunities to develop traditional and digital illustration skills that meet professional

entrance level requirements. Students learn to utilize a systematic instructional design process to develop effective educational materials. Graduates must be able to demonstrate professional and ethical practices. The curriculum includes teaching students to meet management and business practices competencies.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Candidates for the program are generally expected to hold a bachelor degree from an accredited college or university. Students usually have their degree in art or science. They must have at least one year of biology that includes three of the following: histology, immunology, pathology, embryology, genetics, cellular physiology. Candidates must also demonstrate significant studio work through a portfolio. International students' credentials are evaluated by the RIT Registrar's Office or through an accredited evaluation service to assure their equivalence to a U.S. bachelor degree. Overall, evidence of professional potential is determined by the Medical Illustration faculty's review of the candidates' creative production through their portfolio, undergraduate records, letters of recommendation, and statements of goals. The faculty makes acceptance recommendation to the chair of the School of Art who makes the final decision. Students with some deficiencies in science or studio preparation may be admitted conditionally. These conditions may need to be met prior to matriculation or, depending on the type of deficiency, met after matriculation concurrently with the regular curricular requirements. Credit taken under these arrangements ordinarily would not count toward the degree.

ii. Research and professional tools required in the program

There are no specific research or professional tools required.

iii. Policy for comprehensive review of graduate degree candidates

Students must maintain a 3.0 cumulative grade point average. Grades of less than a "C" do not count toward the fulfillment of degree requirements. Once a student enters the thesis process, their faculty committee reviews progress on a regular basis. This thesis committee is responsible for approval of both the body of work produced by the student in meeting the demands for professional production and approval of a written research report. The thesis work culminates in a thesis exhibition. The thesis, therefore, is the major vehicle for a comprehensive review of student performance.

iv. Candidacy and final project requirements for the program

The thesis is the final project for the MFA. In addition to its importance as a measure of student achievement, it should break new ground and contribute to the field of Medical Illustration. It should demonstrate technical mastery as well as aesthetic discernment. The written report is not meant to document the production of the artwork but to be an integral part of the culminating experience. The work or a significant portion of it is required to be shown publicly, usually in a graduate thesis show in the Bevier Gallery.

d. Results

The MFA in Medical Illustration program has a very successful job placement rate. Positive feedback is received from alumni through the list-serve and from the annual alumni meeting at the AMI conference. Employers regularly make requests for graduates of the

program for jobs. Student and graduate work receive positive reactions at AMI conference exhibits.

e. Strengths and Weaknesses

The strengths of the MFA in Medical Illustration program include:

- the opportunity for direct observation of surgical procedures through formal agreements with two medical centers;
- a broad selection of diverse elective courses including photography, print media, film and animation, information technology, and design;
- a diversity of science choices to meet degree requirements;
- access to the libraries at the University of Rochester Edward G. Miner Medical Library and Rush Rhees Library;
- superior contemporary computer facilities and equipment that are an integral part of the program;
- a strong alumni network;
- broad preparation for employment in both the allied health field and related visual art fields;
- flexibility for adapting to changing market and field demands;
- strong school, college, and institute support for faculty development.

The weaknesses of the MFA in Medical Illustration program include:

- a lack of specific scientific illustration courses;
- the need for microscopes;
- a limited specimen and anatomic material collection.

f. Plans for Improvement

Plans for improvement of the MFA in Medical Illustration program include exploring opportunities to bring in scientific illustrators to augment present program offerings, proposing to purchase microscopes through the annual capital budget process, and developing specimen and anatomic material collections through phased purchases over time.

g. Results from Plans for Improvement

The Medical Illustration computer lab has been updated with new hardware and software. Additional research tools such as microscopes are under consideration for the next capital budget request cycle. We are continuing the process of improvement to the lab and reference materials. The facilities and are in full compliance with RIT safety standards. Medical Illustration is participating in the redesign and engineering of a new coordinated website for CIAS.

h. Program Outcomes 09 Update

Medical Illustration graduate students are actively being encouraged to participate in grant and fellowship activities with allied health professionals. The Medical Illustration computer lab has been updated with new hardware and software leading to increased utilization of digital software to set with industry standards. Additional research tools such as microscopes are being adapted for use within the curriculum. We are continuing the process of improvement to the lab and reference materials.

MST in Art Education

a. Goals

The purpose of the MST in Art Education program is to offer a unique graduate experience that prepares artist/teachers to meet the national, state and regional need for excellent teachers of the visual arts. The MST in Art Education is committed to educating artists/teachers whose practice is characterized by thoughtful action rooted in research (with an emphasis on action research) and whose preparation will equip them to become leaders, as well as advocates for the arts, in the field of art education. The relationship between faculty and students in the program is one of partnership in teaching and learning. The program addresses the fundamental purposes and processes of education as well as the impact of social, economic, and cultural changes upon education. The program provides a variety of perspectives on the education of the visual arts. It prepares teachers who are dedicated to pedagogy of engagement.

b. Compliance

The typical candidate for the program has taken more than 54 quarter credit hours of studio work during their undergraduate preparation with 48 quarter credit hours as the minimum. They must take an additional 6 graduate studio credits with guidance to balance their understanding of critical areas in the arts. At the same time many of the candidates come to the program with extensive life and work experiences as well as additional course work. They often have some P-12 and/or college teaching experience. All candidates have met undergraduate art history requirements for their undergraduate degree. Strategies for teaching the production of art, art history, aesthetics, and criticism are part of the Methods and Materials classes. The program includes a student teaching experience that is 14 weeks long. Students are placed in an elementary setting for 7 weeks and in a secondary setting for 7 weeks. The program coordinator,

carefully places students taking into account the students' goals, the requirements of the MST program and the State of New York. Placements are designed to combine potential for success with elements of intense challenge to maximize individual growth. A final project is required. The portfolio presentation is a comprehensive record of the teaching experience and course work including a reflexive research paper.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

All candidates must hold a baccalaureate degree with a minimum of 48 quarter credit hours (36 semester hours) or studio work (review of transcripts). They must demonstrate a high level of competence and breadth of media experience through portfolio review. Candidates must demonstrate clearly defined personal goals that reflect a mature decision-making process and motivation through a written goal statement and interview.

ii. Research and professional tools required in the program

No specific research or professional tools are required in the MST in Art Education program.

iii. Policy for comprehensive review of graduate degree candidates

The comprehensive review of the MST in Art Education degree candidates includes: four to eight supervisor observations of the student teacher in the field; cooperating teacher's verbal and written evaluations; university supervisor's verbal and written evaluations; seminars providing a summary evaluation; and presentation of research component of final report to the peer group in seminar.

iv. Candidacy and final project requirements for the program

All students are required to prepare a final portfolio, which is a culminating activity for the program. The requirements for the portfolio ask the student to: document personal experience in the teaching/learning environment; present a profile of the school, students, faculty, administration, and art program; and record their personal lesson planning and evaluation of instruction. The portfolio also requires the students to reflect on their teaching and learning experiences. The focus of the portfolio is more empirical and pragmatic than theoretical. The portfolio has the objective of presenting a platform for review of art education issues. It challenges the students to articulate their unique perspective of art education and in defining themselves as art educators.

d. Results

The MST in Art Education is very effective based on student performance on the mandated New York certification exam. Job placement rates are very good with continued, significant successes on the job. Students have accepted positions in a wide array of assignments on both the elementary and secondary levels. Some have been recognized as outstanding in the field. They present workshops to area teachers, are active in regional art and art education organizations, exhibit their students' and their own work, and participate professional state and national conferences.

e. Strengths and Weaknesses

The strengths of the MST in Art Education program include:

- the maturity of the students;

- an excellent selection of very strong cooperating teachers in the area school districts who are anxious to work with our MST students;
- excellent media skills of our graduates;
- diversity of educational background, work and life experience, ages, and ethnic origins of students.

The weaknesses of the MST in Art Education program include:

- lack of dedicated space for instruction and carrying out curricular and program goals;
- need for additional full-time Art Education faculty due to sustained high levels of enrollment and the potential for further growth to meet the areas' need for art teachers.

f. Plans for Improvement

The plans for improvement of the MST in Art Education program include: continuing to work on curriculum changes to meet new State of New York requirements; broadening the diversity of the student population even further; increasing the emphasis on technologies in the teaching/learning experience; and seeking Institute support for new faculty and dedicated space.

g. Results from Plans for Improvement

The Master of Science for Teachers in Art Education has been implementing curriculum changes to meet State of New York accreditation standards. The curriculum reflects an increase in diversity and emphasis on technology in the teaching/learning environment. We have established priority classroom scheduling for the Art education courses. Art Education is participating in the redesign and engineering of a new coordinated website for CIAS.

h. Program Outcomes 09 Update

The Master of Science for Teachers in Art Education has been reviewed by and meets the program certification standards of the Teacher Education Accreditation Council (TEAC). The TEAC review included extensive evaluation of student learning outcomes. The program meets the State of New York accreditation standards. The curriculum reflects an increase in diversity and emphasis on technology in the teaching/learning environment. We have established priority classroom scheduling for the Art education courses and improved curricular content.

School of Design

General Objectives for the School of Design

The mission of the School of Design is to provide quality design education and preparation for professional practice. Our internationally recognized programs educate students to be designers who make valuable contributions to their professions, communicate effectively, maintain a lifelong attitude of inquiry, and make a positive impact on society. Within the School of Design programs, faculty and students form an inquisitive and dynamic educational community in which, creativity, critical thinking, innovative problem solving, aesthetic understanding, cross-disciplinary study, professionalism, and social responsibility are explored, cultivated, and promoted.

BFA in Graphic Design

a. Goals

The BFA in Graphic Design is intended to educate individuals, and to lead the profession, in theory, technology, and applications of visual communications. These studies emphasize critical thinking, innovation, and aesthetic sensibility in a challenging, dynamic environment. There is a commitment to encourage and uphold social, ethical, and environmental awareness and responsibility within the curriculum. Upon completion of the program, students will be prepared for professional practice or graduate study.

b. Compliance

The Graphic Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for graphic design programs. Basic elements of two and three dimensional design and drawing, introduced in freshman Foundation year, are reinforced and applied throughout the program. The curriculum is designed to promote effective visual communication. There is an expectation of a high level of quality and refined aesthetic sensibility in student execution of design problems. The curriculum incorporates a structured approach to innovative visual problem solving and requires the utilization of the appropriate tools, technology, and media as they relate to visual communication. Practical applications of design are included in the curriculum, and interdisciplinary approaches to design are pursued when appropriate. The program is evaluated and revised as needed in order to encourage and uphold social, ethical, and environmental awareness and responsibility within its curriculum.

c. Results

The regional and national reputation of the program is evidence of the successful implementation of its objectives. Both solicited and unsolicited correspondence with graduates and employers, relating positive feedback about our curriculum and career preparation is further evidence of success. Student course evaluations and random exit interviews have been effective tools for assessing course curriculum and content, instructor effectiveness, and in continually evaluating the program's direction and focus.

d. Strengths and Weaknesses

The strengths of the BFA in Graphic Design program include:

- diversity and expertise of faculty;
- well defined undergraduate program with strong professional orientation and optional internships;
- national and regional reputation;
- high student application and retention record;
- strong alumni network;
- resources including the Graphic Design Archive and numerous state-of-the-art labs and computer facilities;
- special on-campus educational programs including conferences, seminars, and workshops;
- professional organization affiliations;
- professional activities of the faculty.

The weaknesses of the BFA in Graphic Design program include:

- large classes;

- too many adjunct instructors;
- lack of dedicated workspace for students;
- difficult to access other departments, schools, and colleges;
- appropriate classroom/computer labs often difficult to schedule;
- lack of sufficient resource funding for promotional materials;
- lack of sufficient faculty development funding.

e. Plans for Improvement

The plans for improvement of the BFA in Graphic Design program include ongoing curricular evaluation. As part of that process, new and creative methods for the delivery of information and the teaching of course content are being discussed and explored. This could improve communication as well as solve some of the space and scheduling issues we have been faced with. More creative course scheduling and better communication between departments, schools and colleges could open more doors for students in terms of easier scheduling of courses in other areas.

f. Results from Plans for Improvement

The faculty participated in ongoing curricular revision, which has included a re-sequencing of sophomore and junior level courses to reflect new and evolving marketplace needs and skills. This has also included a push toward more interactive delivery of content as well as combining multiple sections of courses into one lecture (and several studio) section for consistency of message and economy of space. The increased use of laptops in studio courses

that previously utilized a computer lab has made scheduling in the labs easier for those courses which need more lab time.

g. Program Outcomes 09 Update

Graphic Design continues to examine curriculum, explore design and business trends in industry, and revise content to reflect the continually changing marketplace needs and skills. All graphic design courses have initiated interactivity in the delivery of course content, and the option of utilizing interactive media for solutions to graphic design projects. While the program is still primarily print-based, students may choose to further explore web-based and interactive methods of resolving design assignments. The use of laptops in studio courses has improved lab-scheduling issues, and has offered greater opportunity for immediate feedback. Team teaching approaches to course delivery and projects utilizing teams of students is offering a realistic and professional approach to working dynamics that reflects the design office of today. Though graphic design students do not have any dedicated cubicle or studio space, a dedicated study/research room has given graphic design students a gathering space to collaborate and interact professionally.

AAS in Graphic Design

a. Goals

The AAS in Graphic Design program is intended primarily for students in programs that share the foundation program with other art and design disciplines and who want to enhance their skills and knowledge with basic understanding of the principles and applications of graphic design.

b. Compliance

Upon completion of the foundation year, students are required to take the full sophomore core graphic design courses which include Elements of Graphic Design, Typography I, Type and Image, and Introduction to Time-Based Design. The curriculum holds the same expectation for high quality work, aesthetic consideration, and execution of concepts as the BFA in Graphic Design program. The AAS degree is granted upon completion of the first two years of the Graphic Design program.

c. Results

Students in many of the art programs find this course of study supplements their creativity by teaching more varied and professional methods of communication and application. Students in other design programs have enhanced their knowledge base and added skills that relate well with their major disciplines. Further, students in photography have added typographic education to their image creation skills thus offering a more interdisciplinary student and the ability to cross professional boundaries.

d. Strengths and Weaknesses

The strengths of the AAS in Graphic Design program includes offering a valuable option to students in other programs. The weakness of the AAS in Graphic Design program is the limit on incoming students for the first year in Graphic Design sometimes prevents students from entering the AAS program when the BFA program is at capacity.

e. Plans for Improvement

This option continues to be successful. Changes in the AAS in Graphic Design program will occur as the BFA program changes and evolves.

f. Results from Plans for Improvement

Results coincide with those listed for the BFA in Graphic Design.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Graphic Design. Additionally, re-sequencing of the first and second year graphic design courses offers students in other design, art and crafts majors, a more complete and better progression of material and content.

BFA in Industrial Design

a. Goals

The BFA in Industrial Design is intended to educate individuals in the integration of form and function as products are designed and created by combining materials, processes, computer aided design, and human factors. Aesthetic sensitivity, technical competence, and analytical thought are developed and applied to meet the challenge of designing products for human needs.

b. Compliance

The Industrial Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for industrial design programs. Basic elements of two and three dimensional design and drawing, introduced in freshman Foundation year, are reinforced and applied throughout the program. The curriculum is designed to create an awareness of the design process and aesthetics and an understanding of materials and processes.

There is a focus on ethics and professional practice. Students are expected to gain a knowledge of design history. The curriculum supports independent and team approaches to problem solving and emphasizes verbal and written communication skills. Students are expected to use conceptualization and evaluation processes, perspective drawing and rendering, and drafting and model making. The curriculum is designed to help students develop the ability to use 3-D and CAD software applications. The program is evaluated and revised as needed.

c. Results

The Industrial Design program is gaining an even stronger national and regional reputation as the curriculum continues its pragmatic approach to Industrial Design education. Additionally the curriculum meets the demands of the ever-changing marketplace and the evolving role of the designer by developing designers who are creative, proactive thinkers. The ID program has been recognized with several students winning national competitions and through a high employment percentage.

d. Strengths and Weaknesses

The strengths of the BFA in Industrial Design program include:

- strong young faculty with excellent experience and knowledge;
- good working relationship with regional corporations and their design staffs;
- diverse and balanced program, sense of purpose;
- good shop facilities and equipment;
- broad-based selection of projects;
- competitive but cooperative spirit among students and faculty;

- general attitude and enthusiasm for the program, students, and profession is genuine and inspiring.

The weaknesses of the BFA in Industrial Design program include:

- crowded workspace;
- not enough full-time faculty;
- computer labs often difficult to schedule;
- lack of sufficient resource funding for promotional materials.

e. Plans for Improvement

The plans for improvement of the BFA in Industrial Design program include the creation of a long-range plan for the future development and/or growth of this program. An assessment of space need, allocation and re-design will be explored and written. We have seen an increase in student interest and enrollment in this program. With new faculty and leadership in place, this program is ripe for change that could make it one of the strongest ID programs in the country.

f. Results from Plans for Improvement

The faculty participated in ongoing curricular revision, which has included the reassessment of course goals, objectives and content to better reflect marketplace needs and skills. Several courses have been re-written and new courses added to offer more breadth and depth in specific areas. Short and long term program goals have been established to ensure currency and improve visibility among prospective students and industry professionals. The industrial design studio space was evaluated and a reallocation of desk space now allows for more efficient dedicated space as well as an improved traffic flow.

g. Program Outcomes 09 Update

Industrial Design continues to review curriculum in order to integrate new skills, concepts and emerging trends into course content. Sustainability and green design have become standard practices within the industry, and environmentally sound materials and processes have been included in all industrial design courses. Additionally, the program has placed greater emphasis on concept development, problem solving, and design thinking so that final solutions and completed forms are the result of greater exploration and interdisciplinary approaches. The program continues to see growth in enrollment and students continue to win the IDSA regional and national competition. The program also continues to maintain strong industry ties through reputation as well as through faculty and alumni outreach.

AAS in Industrial Design

a. Goals

The AAS in Industrial Design program is primarily intended for students in programs that share the foundation program with other art and design disciplines and who want to enhance their skills and knowledge with a basic understanding of the principles and applications of industrial design.

b. Compliance

Upon completion of the foundation year, students are required to take the full sophomore core industrial design courses which include Graphic Visualization I, II, and III, Form I and II, Sophomore Design Studio, Technical Drawing, and Model Making. The curriculum holds the

same expectation for quality work, aesthetic consideration, and execution of concepts as the BFA degree. The AAS degree is granted upon completion of the first two years of the BFA in Industrial Design program.

c. Results

Students in many of the arts and crafts programs (particularly those involving 3-D work) find this course of study supplements their creativity by teaching more varied and professional methods of application. Students in other design programs have enhanced their knowledge base and added skills that relate well to their major discipline.

d. Strengths and Weaknesses

The strengths of the AAS in Industrial Design program include offering a valuable option to students in other programs. There are no weaknesses in the AAS in Industrial Design program.

e. Plans for Improvement

This option continues to be successful. Changes to the program will occur as the BFA in Industrial Design program changes and evolves.

f. Results from Plans for Improvement

Results coincide with those listed for the BFA in Industrial Design.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Industrial Design.

BFA in Interior Design

a. Goals

The BFA in Interior Design is intended to educate individuals in the creative integration of form, materials, function, and aesthetics within interior space. Emphasis is on analytical, technical, life-safety, and aesthetic components of the built environment. This program promotes an innovative educational community that balances expression, imaginative problem solving, professional responsibility and creativity.

b. Compliance

The Interior Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for interior design programs. Basic elements of two and three dimensional design and drawing, introduced in freshman Foundation year, are reinforced and applied throughout the program. The curriculum supports the development of drafting, perspective rendering, model-building, computer-aided design, and preparation of sample board skills, as well as the development of specification writing and working drawing skills. Students develop knowledge of the aesthetic properties of space; natural and artificial light; finishes; textiles; furniture; arts and crafts. The curriculum provides an introduction to and application of human factors and proxemics. Students develop knowledge of handicapped accessibility, and building codes and regulations, with specific regard to life-safety, ADA requirements, and energy conservation. Through the curriculum, students gain an understanding of structural theory and its impact on building materials, systems and sub-systems

and an understanding of environmental controls and their impact on interior space. Students learn how to prepare contracts, time and inventory documentation, construction documents, and written specifications. They develop skill in program, site, and code analysis. They develop skill in application of theory, design methodology, and comprehensive knowledge in space planning and design. The program is evaluated and revised as needed.

c. Results

The Interior Design program graduate is well prepared to enter the professional marketplace. Feedback from alumni, and local and national, employers of our graduates has been very positive. Many often hire on a repeat basis. Growth of this program implies success, with a good reputation among professionals. Graduates have been hired locally, regionally, nationally and internationally by interior design consulting firms, architectural firms, facilities planning agencies, corporate and institutional design offices, and furniture dealerships. Some graduates have started their own businesses, while others have gone on to master's programs in architecture, education, and preservation. Many graduates are certified or licensed in states where applicable.

d. Strengths and Weaknesses

The strengths of the BFA in Interior Design program include:

- a career-oriented program emphasizing professional skills, aesthetics and social responsibility;
- FIDER accreditation;
- knowledgeable and experienced faculty;
- dedicated work space;

- a well stocked resource library;
- access to a wide array of complementary studio electives;
- a sense of community in the department providing students warmth, stability and respect.

The weaknesses of the BFA in Interior Design program include:

- only two full-time faculty;
- lack of faculty diversity;
- lack of strong leadership;
- difficulty in finding adjunct instructors;
- computer labs often difficult to schedule;
- lack of sufficient resource funding for promotional materials.

e. Plans for Improvement

The BFA in Interior Design, although a fairly small program, has seen some growth over the last few years. The program needs a long-range plan developed that addresses issues of future growth, faculty growth and diversity, and department leadership. With a solid national and regional reputation, as well as FIDER accreditation, this program has great potential for further development. Ways of increasing the program's visibility in the educational market will be explored.

f. Results from Plans for Improvement

The faculty discussed, debated, and evaluated potential short and long-range plans that address future and faculty growth and diversity, and department leadership. With a fluctuating student enrollment from year to year, new and different methods of increasing visibility have

been discussed and tested. With greater visibility comes more potential for recruiting students and faculty that successfully meet high standards and future leadership needs.

g. Program Outcomes 09 Update

The Interior Design program continues to prepare its students very well for the rigors of professional employment. The high placement rate of graduates, as well as the numbers who receive state certification or licensure, demonstrates the success of the curriculum. Steady enrollment numbers show that prospective students – both incoming freshman and transfer, hold a high regard for its reputation and results. Very high marks on the last FIDER accreditation review add to the program's visibility and reputation within the educational and professional marketplace.

AAS in Interior Design

a. Goals

The AAS in Interior Design program is primarily intended for students in programs that share the foundation program with other art and design disciplines and who want to enhance their skills and knowledge with a basic understanding of the principles and applications of interior design.

b. Compliance

Upon completion of the foundation year, students are required to take the full sophomore core interior design courses which include Architectural Drawing, Computer-Aided Applications, Interior Perspective Rendering, Model Building & Human Dimension, and

Introduction to Interior Design. The curriculum holds the same expectation for high quality work, aesthetic consideration, and execution of concepts as the BFA in Interior Design program.

c. Results

Students in many of the art and design programs find this course of study supplements their creativity by teaching further methods of application. Students in other design programs have enhanced their knowledge base and added skills that relate well to their major discipline.

d. Strengths and Weaknesses

The strength of the AAS in Interior Design program is that it offers a valuable option to students in other programs. There are no weaknesses in the AAS in Interior Design program.

e. Plans for Improvement

This option continues to be successful. Changes to the program will occur as the BFA in Interior Design program changes and evolves.

f. Results from Plans for Improvement

Results coincide with those listed for the BFA in Interior Design.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Interior Design.

BFA in New Media Design and Imaging

a. Goals

The BFA in New Media Design and Imaging is intended to educate individuals in response to a growing demand for college graduates with strong digital imaging skills, highly refined design sensitivities, and the ability to visualize concepts. The students explore all forms of digital media as well as traditional imaging techniques to become creative and skilled multimedia designers. The goal of this interdisciplinary program is to meet the burgeoning demands of qualified professionals for the new media industries by establishing the most comprehensive and preeminent undergraduate New Media curriculum in the nation. In cooperation with programs in New Media Information Technology and New Media Publishing, the three programs enable students primarily interested in the design, technology, and business aspects of digital media production to learn and practice their respective disciplines in close collaboration. Designers will have the opportunity to work closely with information technologists to solve problems that can only be solved by designers and information technologists working together.

b. Compliance

The New Media Design and Imaging program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for new media design programs. Basic elements of two dimensional design and drawing, introduced in freshman year, are reinforced and applied throughout the program. The curriculum is designed so that students develop knowledge in concept development, design application and project management. They learn independent and team approaches to problem solving. The curriculum emphasizes the

development of verbal and written communication skills, and there is a focus on career development and professional practice. The curriculum provides the opportunity for students to gain experience in all areas of multimedia design including storyboarding, digital sound, animation, interactivity, programming, digital photography and video and digital imaging. Students also have the opportunity to explore gaming, entertainment multimedia and virtual reality. The program is evaluated and revised as needed.

c. Results

RIT's goals define an environment that encourages breadth of learning and high standards of achievement. The competitive level of challenge in the New Media industry demands our program prepare students this way. They must be specialists with generalist knowledge and understanding. The design students must know how to program in the appropriate languages; the IT students must know the principles of design. New Media concerns itself with communication. The New Media Design and Imaging program prepares students to creatively design and effectively disseminate information in a continually evolving interactive environment. Students learn the team approach to design through collaborative project experiences with each other as well as with industry. Although a fairly new program, it has had early success in students finding employment and worthwhile internship opportunities.

d. Strengths and Weaknesses

The strengths of the BFA in New Media Design and Imaging program include:

- resources and access to state-of-the-art technology;
- comfort level with new and emerging technology;

- experienced and knowledgeable faculty;
- complementary array of studio electives;
- multidisciplinary program;
- partnerships with industry for projects and internships;
- Adobe *Partners in Design* school;
- program enrollment is capped;
- enthusiastic, dedicated, and very focused students.

The weaknesses of the BFA in New Media Design and Imaging program include:

- lack of some traditional Foundation year curriculum taught by Foundations faculty;
- perception that it lacks design fundamentals;
- difficulty in scheduling courses with New Media IT and New Media Publishing;
- lack of sufficient resource funding for promotional materials.

e. Plans for Improvement

The plans for improvement of the BFA in New Media Design and Imaging program include an ongoing curriculum review process. Revisions for the 2003/04 academic year include adding some Foundation courses back into the first year curriculum. Scheduling difficulties between the three New Media programs are being addressed and should be resolved. As the program becomes better known and with more exposure to the work of students and graduates of the program (via onsite kiosks and the web), the perception and reality of the program and will become clear.

f. Faculty Associated with the Program

Name	Rank	Status	Time
M. O'Loughlin*	Associate Professor	Tenured	Full-time
T. Hannigan	Assistant Professor	Tenure track	Full-time
J. Arena	Assistant Professor	Tenure track	Full-time
A. Smith	Assistant Professor	Visiting	Full-time

* Program Chairperson

g. Fiscal Resources

When the BFA in New Media Design and Imaging program was originally proposed, projected total costs for the first five years of the program were $3,024,422. Those costs included the establishment of high-end computer lab and incremental faculty. Projected revenue for that same period was $3,156,347. The program is currently in the fifth year, but enrollments have exceeded projections so the financial viability of the BFA in New Media Design and Imaging is guaranteed.

h. Facilities

The BFA in New Media Design and Imaging program currently uses three main teaching labs: the New Media Lab consisting of 24 Apple PowerMac computers with dual processors and various peripheral equipment for storage, scanning, and printing; the Gannett Multimedia classroom consisting of 23 Apple PowerMac G4 computers and overhead projection system; and the Studio 96 teaching lab with 24 Apple eMac computers, an overhead projection system, and various peripheral equipment for storage, scanning, and printing. All software in the labs and classrooms is key served. Current facilities meet the needs of the students and instructors.

i. Library

In addition to existing library resources identified in Section IG, four new serial titles (3D Design, Digital Video Magazine, PC Graphics and Video, NewMedia) were

added in the first year of the BFA in New Media Design and Imaging program. One new serial title has been added to the collection each year thereafter.

j. Rationale for Adding the Program

RIT has a long tradition of developing programs that have prepared students for careers in the media industries. Digital technology has changed everything. Out of the computer can emerge a stream of data that can be converted automatically into a multimedia presentation, a poster, a painting, a book, a web site, a CD-ROM, an animated film, a sound recording, or a video game. As digital media production tools become more ubiquitous and accessible, the challenge for RIT is to provide students with learning experiences that leverage the advantages of the new technology. Digital technologies enable academic programs in new media to de-emphasize the teaching of isolated tool-based skills and concentrate on the higher level processes that integrate the pieces. The BFA in New Media Design and Imaging is one of three programs that share a common first year and other experiences. Because of the close association with other programs, designers have the opportunity to work together in an integrated way with information technologists and print media specialists.

The integrated approach to education and professional practice makes this program unique and sets it apart from most others. Curricular interconnections are the foundation. All three degree options require courses from the School of Design, the School of Photographic Arts & Sciences, the School of Print Media, and the Department of Information Technology. Students in the program must work collaboratively and cooperatively to create varied and unique solutions to a common design problem.

The New Media Design and Imaging program enrolls 30 students each year for a total of 120 students. The expectation for employment of graduates is high. Students are able to seek and attain employment creating interactive media in design studios, agencies, corporate communications, web design firms, software developers, and any business that has a need for new media design and imaging. Students have access to the RIT Office of Cooperative Education and Career Services for help with employment, and they are also given the education, skills, and tools within the program necessary to conduct an effective job search on their own.

k. Relationship with New and Ongoing Programs

New Media Design and Imaging is a relatively new program in the School of Design, and it did not replace any existing program. As a result of the addition of New Media Design and Imaging, we have experienced slightly lower enrollment in the BFA in Graphic Design program. However, the establishment of the New Media Design and Imaging program has helped to clarify each program's objectives and offer students with clear career goals a direct and targeted path. The financial viability of the School of Design overall has been positively affected by the introduction of the New Media Design and Imaging program.

l. Program Improvements

Ongoing curriculum review by the faculty has greatly improved the course sequencing and scheduling among the three New Media Programs (NM Design, NM Publishing, NM Information Technology). More Foundations drawing and 2D has been

added back into the curricular plan, and industry collaborations have yielded interesting and beneficial course projects that have won student awards. They have also proven to be potential employment opportunities for our students. Additionally, a New Media kiosk showcasing ongoing student work was purchased, programmed, and placed in the third floor gallery/showcase area as a means of increasing the visibility of the program and the excellent work created by its students.

m. Program Outcomes 09 Update

By it's very nature, New Media Design requires continual curriculum review and new content implementation. This has resulted in a very strong and steady program that addresses the constantly evolving tools, techniques, hardware, software, and methods of interactive and multimedia communications that connect us all to industry and the world at large. With the ability to remain fluid in adjusting needs and skills, additions of new courses, new content, and re-sequencing of current courses allow the program to meet the needs of industry employers by providing very well skilled graduates. Students our highly sought after for internship and co-op work, and graduates are recruited by the best firms in numerous larger cities such as NYC, Boston, and Chicago. The interdisciplinary nature of this program (joint courses with New Media Development in GCCIS) has prepared students well for the teamwork and collaborative process expected in professional industry. While an expensive program to maintain, we continue to press ahead for funding and donations that will provide a cutting edge environment for our students.

MFA in Graphic Design

a. Goals

The MFA in Graphic Design is intended to educate individuals and to lead to the profession in theory, technology, and applications of visual communications. The program addresses advanced visual communication problems and emphasizes meaning, form and function and integrates creativity, philosophy, history, theory, applied concepts and technology. It takes a balanced approach toward the application of electronic media and traditional processes.

b. Compliance

The MFA in Graphic Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for graduate graphic design programs. The curriculum promotes effective visual communication. A high level of quality and refined aesthetic sensibility in student execution of design problems is expected. The curriculum incorporates a structured approach to innovative visual problem solving. Students develop an understanding of and an ability to implement design process; design theory; history and criticism; research methods; typography; imagery creation and use; systems design; information design; ethics and values; project development and evaluation; and cross disciplinary problem-solving methods. The curriculum provides opportunities for cross disciplinary course work that

encourages dialog and interaction on the design, philosophy, process, practice, history, and goals and responsibilities across the design disciplines. All students must complete a thesis project that balances intellectual research, the design process. and application and allows for exhibition and peer review. The program is evaluated and revised as needed.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Students applying for entrance into the MFA in Graphic Design program must have completed a baccalaureate degree or the equivalent from an accredited college or university. They must submit the RIT Graduate Admissions application which includes: admission application form; statement of intent and educational goals; official college transcript(s); and two letters of recommendation. Acceptance into the program is determined by the Graduate Graphic Design faculty upon review of the application and portfolio and in relation to the RIT admission criteria.

ii. Research and professional tools required in the program

Students in the MFA in Graphic Design program are required to complete 21 quarter credits of major design courses, 15 quarter credits of Design Core courses (common courses to all School of Design grad students), 8 quarter credits of Liberal Arts courses (courses of their choice in the College of Liberal Arts), 32 quarter credits of Electives or a chosen Minor, and 14 quarter credits of Thesis. Many of these courses will have a heavy research and writing component. In addition to the necessary design

knowledge and skills to enter the program, those accepted must possess the necessary language and communication skills to complete the curricular requirements.

iii. Policy for comprehensive review of graduate degree candidates

Graduate students in Graphic Design are continually evaluated by means of course examinations, graded written research papers, project critique, and instructor one on one feedback. A grade point average of 3.0 must be maintained by all graduate students to remain in the program.

iv. Candidacy and final project requirements for the program

Graduate students in Graphic Design must complete a Thesis project and report that is a faculty-guided, self-initiated research project in an area of individual student interest. The application of this project must be exhibited in the Graduate Thesis Show in the Bevier Gallery. The purpose of the thesis requirement is to provide the opportunity for student exploration, experimentation, and development of an individual interest in graphic design. The thesis also provides a method of acknowledging and applying his or her comprehensive knowledge and skills in the form of a design project. Finally, it provides a public forum to exhibit a student's skills, talent, and professional competence.

d. Results

The regional and national reputation of the program is evidence of the successful implementation of its objectives. It is a stable and solid program that has been recognized in design's academic circles and by its peers and competitors. Graduates from this

program can be found working in the professional design marketplace and corporate arena, as well as teaching design in numerous academic institutions.

e. Strengths and Weaknesses

The strengths of the MFA in Graphic Design program include:

- highly focused graduate program;
- national and regional reputation;
- strong alumni network;
- excellent resources including the Graphic Design Archives and Cary Library;
- professional organization affiliations;
- professional development and research activities of the faculty.

The weaknesses of the MFA in Graphic Design program include:

- curriculum and faculty potentially too rigid (in both content and methods of execution);
- needs slightly more emphasis on application and its process;
- needs more emphasis on business/design relationship;
- workspace too small should the program grow;
- lack of sufficient resource funding for promotional materials.

f. Plans for Improvement

Although curricular revision and planning are an ongoing process, the MFA in Graphic Design program is due for a review and self-study to determine if its current direction is the most viable. Changes in the graphic design profession as well as in

graphic design education may warrant a closer look by the School of Design and the Graduate Graphic Design faculty.

g. Results from Plans for Improvement

The faculty participated in ongoing curricular revision and is reviewing its goals and objectives as they pertain to graduate design education and that of our competitors. Various "tracks" have been identified as possible areas of focus to more specifically prepare graduates for industry leadership or academic employment.

h. Program Outcomes 09 Update

In addition to those outcomes listed in the BFA, we have continued to review curriculum, make changes and additions as necessary, and look at the curriculum and admissions policies of our competitors. The program has taken a more cross-disciplinary approach to learning and problem solving, utilizing faculty and content from associated disciplines in order to broaden students' thinking and experience. We have sped up the timeline for reviewing applicants so that we do not lose the best students to competitor schools based on later acceptance decisions.

MFA in Industrial Design

a. Goals

The MFA in Industrial Design is intended for students pursuing specialized study in industrial design at the graduate level for the purpose of career enhancement or redirection. The curriculum is project oriented, requiring research into design methods,

materials, and technologies. Industry collaborations provide an experiential dimension. Studies include seminar courses in design history, issues, research, theory and methods, which are common to all School of Design graduate students. In addition, studio courses focus on industrial design applications and utilize software for product modeling.

b. Compliance

The MFA in Industrial Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for graduate industrial design programs. The curriculum is designed to create an awareness of the design process and aesthetics and an understanding of materials and processes. There is a focus on ethics and professional practice. Students are expected to gain knowledge of design history. The curriculum emphasizes verbal and written communication skills. Students are expected to use conceptualization and evaluation processes and have the ability to use 3-D and CAD software applications. The curriculum provides opportunities for cross disciplinary course work that encourages dialog and interaction on the design, philosophy, process, practice, history, and goals and responsibilities across the design disciplines. All students must complete a thesis project that balances intellectual research, the design process and application and allows for exhibition and peer review. The program is evaluated and revised as needed.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Students applying for entrance into the MFA in Industrial Design program must have completed a baccalaureate degree or the equivalent from an accredited college or university. They must submit the RIT Graduate Admissions application which includes: admission application form; statement of intent and educational goals; official college transcript(s); and two letters of recommendation. Acceptance into the program is determined by the Graduate Industrial Design faculty upon review of the application and portfolio and in relation to the RIT admission criteria.

ii. Research and professional tools required in the program

Students in the MFA in Industrial Design program are required to complete 27 quarter credits of major design courses, 15 quarter credits of Design Core courses (common courses to all School of Design grad students), 4 quarter credits of Liberal Arts courses (courses of their choice in the College of Liberal Arts), 15 quarter credits of Electives, 15 quarter credits of a chosen Minor, and 14 quarter credits of Thesis. Many of these courses have a heavy research and writing component. In addition to the necessary design knowledge and skills to enter the program, those accepted must possess the necessary language and communication skills to complete the curricular requirements.

iii. Policy for comprehensive review of graduate degree candidates

Graduate students in Industrial Design are continually evaluated by means of course examinations, graded written research papers, project critique, and instructor

one on one feedback. A grade point average of 3.0 must be maintained by all graduate students to remain in the program.

iv. Candidacy and final project requirements for the program

Graduate students in Industrial Design must complete a Thesis project and report that is a faculty-guided, self-initiated research project in an area of individual student interest. The application of this project must be exhibited in the Graduate Thesis Show in the Bevier Gallery. The purpose of the thesis requirement is to provide the opportunity for student exploration, experimentation, and development of an individual interest in industrial design. The thesis also provides a method of acknowledging and applying his or her comprehensive knowledge and skills in the form of a design project. Finally, it provides a public forum to exhibit a student's skills, talent, and professional competence.

d. Results

The regional and national reputation of the program is evidence of the successful implementation of its objectives. This program is growing in student numbers as the popularity of industrial design (and product design) grows. With new faculty in place and the opportunity to hire more upon upcoming retirements, there is great potential for curricular revision (some already proposed) and the building of a new, more meaningful program. The MFA in Industrial Design program has a high rate of placement with graduates finding work both in the professional marketplace and academic institutions.

e. Strengths and Weaknesses

The strengths of the MFA in Industrial Design program include:

- strong young faculty with excellent experience and knowledge;
- good working relationship with regional corporations and their design staffs;
- diverse and balanced program, sense of purpose;
- good shop facilities and equipment;
- broad-based selection of projects;
- competitive but cooperative spirit among students and faculty;
- general attitude and enthusiasm for the program, students, and profession is genuine and inspiring.

The weaknesses of the MFA in Industrial Design program include:

- crowded workspace;
- not enough full-time faculty;
- computer labs often difficult to schedule;
- lack of sufficient resource funding for promotional materials.

f. Plans for Improvement

A long-range plan for the future development and/or growth of the MFA in Industrial Design program, along with assessing space need, allocation and re-design should be explored and written. We have seen an increase in student interest and enrollment in this program. With new faculty and leadership in place, this program is ripe for change that could make it one of the strongest MFA in Industrial Design programs in the country.

g. Results from Plans for Improvement

Results coincide with those listed for the BFA in Industrial Design.

h. Program Outcomes 09 Update

In addition to those outcomes listed in the BFA, we have continued to review curriculum and implement changes that offer grad students the kind of depth of knowledge and breadth of experience that employers expect from an advanced degree. This program has seen considerable growth in enrollment as the result of its high ranking on the Design Intelligence list of best industrial design programs, as well as by reputation. The program also continues to have a high placement rate in industry with many graduates taking senior design and management positions.

MFA in Computer Graphics Design

a. Goals

The MFA in Computer Graphics Design is intended for students interested in combining knowledge of design theory and methods with skills in the application of the most recent software and hardware developments. This program represents and fosters a multimedia approach to the design of electronic communications with a focus on innovative approaches toward the design of interactive digital media, including interactive modules, and web site development.

b. Compliance

The MFA in Computer Graphics Design program fully complies with NASAD standards stressing goals and objectives that meet or exceed essential competencies for graduate computer graphics design programs. The curriculum is designed to create understanding of design principles, visualization, semiotics and digital technology. Students have experience in all areas of multimedia design including storyboarding, digital sound, animation, interactivity, programming, digital photography and video and digital imaging. They develop an understanding of new career directions within computer graphics design. The curriculum provides students with opportunities to apply computer graphics technology to solving advanced communications problems. Students develop knowledge in the evaluation of computer graphics software and its application in specific problem solving. The curriculum is structured to help students develop an understanding of the management of computer graphics systems and to develop advanced research skills utilizing the computer and interactive digital methods. The program is evaluated and revised as needed.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Students applying for entrance into the MFA in Computer Graphics Design program must have completed a baccalaureate degree or the equivalent from an accredited college or university. They must submit the RIT Graduate Admissions application which includes: admission application form; statement of intent and educational goals; official college transcript(s); and two letters of recommendation. Acceptance into the program is determined by the Graduate Computer Graphics Design

faculty upon review of the application and portfolio and in relation to the RIT admission criteria.

ii. Research and professional tools required in the program

Students in the Graduate Computer Graphics Design program are required to complete 42 quarter credits of major design courses, 15 quarter credits of Design Core courses (common courses to all School of Design grad students), 18 quarter credits of Electives or a chosen Minor, and 15 quarter credits of Thesis. Many of these courses have a heavy research and writing component. In addition to the necessary design knowledge and skills to enter the program, those accepted must possess the necessary language and communication skills to complete the curricular requirements.

iii. Policy for comprehensive review of graduate degree candidates

Graduate students in Computer Graphics Design are continually evaluated by means of course examinations, graded written research papers, project critique, and instructor

one on one feedback. A grade point average of 3.0 must be maintained by all graduate students to remain in the program.

iv. Candidacy and final project requirements for the program

Graduate students in Computer Graphics Design must complete a Thesis project and report that is a faculty-guided, self-initiated research project in an area of individual student interest. The application of this project must be exhibited in a Graduate

Thesis Show. The purpose of the thesis requirement is to provide the opportunity for student exploration, experimentation, and development of an individual interest in computer graphics design. The thesis also provides a method of acknowledging and applying his or her comprehensive knowledge and skills in the form of a design project. Finally, it provides a public forum to exhibit a student's skills, talent, and professional competence.

d. Results

Students completing the MFA in Computer Graphics Design program have strong and extremely marketable design and technical skills for both the professional marketplace and academic institutions. They become progressive thinkers and communicators who dedicate a great deal of time to researching interactivity and staying on top of new and emerging technologies. Many of our graduates are hired by corporations to drive their multimedia and web design initiatives. This program's success is evident by its high enrollment and retention, as well as its high placement rate upon graduation. It was one of the first dedicated computer graphics design programs in the country, and it remains one of the most career focused. Industry associations and collaborations (including co-ops and internships) give students experiential educational opportunities and give the program a very realistic edge.

e. Strengths and Weaknesses

The strengths of the MFA in Computer Graphics Design program include:

- state-of-the-art facility and equipment;

- comfort level with new and emerging technology;
- knowledgeable and experienced faculty;
- industry associations and partnerships;
- complementary array of studio electives.

The weaknesses of the MFA in Computer Graphics Design program include:

- lack of sufficient resource funding for faculty development and training;
- lack of sufficient resource funding for promotional materials.

f. Plans for Improvement

The MFA in Computer Graphics Design program requires high maintenance in terms of equipment, upgrades, and faculty development. It requires a higher level of training and more time in researching technology and its impact than any other program in the School of Design. It can be expensive and time-consuming. Faculty are often caught between learning and teaching. Greater initiative needs to be taken to get more funding for faculty development and training.

g. Results from Plans for Improvement

While the CGD program continues to require high maintenance in equipment and faculty development, outside sources of funding from industry partnerships and donations have assisted in gaining the technology and research equipment and dollars needed to stay ahead of the curve in the field's constantly evolving landscape.

h. Program Outcomes 09 Update

Much like the BFA in New Media Design and Imaging, this graduate program continues to review, explore and experiment with curricular initiatives that keep it progressive and with or ahead of the technology curve in industry. Students are gaining deeper insight into theoretical concepts and a higher level of problem solving skills necessary to manage and oversee professional projects. Graduates are being hired by corporations to drive their multimedia and web design initiatives, as well as by academic institutions to teach courses utilizing emerging technologies. Associations with industry through funded projects and collaborative research, has kept its reputation high, thus enrollment has been steady, and placement has maintained excellence. While an expensive program to maintain, we continue to press ahead for funding and donations that will provide a cutting edge environment for our students.

School of Film and Animation

General Objectives for the School of Film and Animation

The mission of the School of Film and Animation is to prepare graduates to produce independently their own work or to begin careers in any of the several areas of creative specialty involved in our collaborative art, appropriate to their interests and talents. The goal is to be a program that deals with all aspects of cinema in the fullest possible sense, not limiting ourselves as to genre, production technique and approaches, technology, commercial or artistic expressive goals, or definition of audience. The School of Film and Animation is committed to a production oriented curriculum providing for our students the basis for becoming masters of the traditional discipline, in

terms of aesthetics and practical production practice related to all forms of motion media (motion picture film, video and digital media, and their combinations), while exploring, and finding, their own unique creative voice. It is essential that the curriculum flexibly remain consistent with current and emerging technologies, production practice, and aesthetic evolution.

BFA in Film/Video/Animation

a. Goals

All areas of emphasis, i.e., Production, Animation, and Performance/Stagecraft, require a significant foundation in all aspects of film production while allowing individual students to support unique specialties by their choices for the personal projects (as to genre, technique, production and distribution media) and their choice of elective courses. The Production emphasis is intended for students interested in general film/video production; scriptwriting; performance; or specialization in "craft" areas such as cinematography, editing, sound recording and mixing, compositing, digital and optical effects, etc. The Animation emphasis is intended for students interested in single-frame filmmaking, requiring a basic understanding of all forms of animation and allowing specialization in traditional or computer techniques or their combinations. The Performance/Stagecraft emphasis is limited to deaf students with a demonstrated potential for career fulfillment in the performance or stagecraft areas of our collaborative art, that because of their interests or disabilities would find the "audio" aspect of our audio-visual production curriculums impossible or unnecessarily burdensome. Their

professional goals involve serving as specialists for both film and live theater production. Appropriate theater and stagecraft classes are replacing some basic audio-visual production classes. (Deaf students interested in film or animation production [becoming producers, directors, cinematographers, animators, etc.] must apply, be accepted, and fulfill all the requirements for either the production or animation emphasis. We have several successful deaf graduates and current deaf students in these programs).So far we have had only 2 graduates (1 in 2001, 1 in 2002) from the Performance/Stagecraft track, although we currently have four such students about to begin their Junior 2-quarter project. Students accepted for this emphasis apply to transfer into our School from other NTID or RIT programs where they have already demonstrated their academic and creative potential.

b. Compliance

As shown in the curricular tables, the BFA in Film and Animation program is consistent with the NASAD guidelines for curricular structure for Film programs: at least 65% of curriculum devoted to the major requirements (with 10-15% being art history), and 25-35% general studies. Since many classes we teach could be considered support classes, but are required and not elective choices, we included them in the work sheet under the "Studio" column and only classes where there was choice under the "Elective" column. If “elective” in the tables is interpreted as "support," it might appear that we are unbalanced relative to support and studio classes (NASAD guidelines 25-20% studio, 30-35 support vs. School of Film and Animation 40-48% studio, 12-19% elective). However, this is simply an organizational confusion, and it is difficult to change since what would

be considered studio and support in one area of emphasis might be considered in reverse categories in another area. We believe we are in full accord with the NASAD guidelines and philosophy.

c. Results

All means of evaluation reveal that we are meeting our goals and objectives, and we are consistently exploiting evaluative feedback to make the changes necessary to maintain and improve this level of accomplishment. These evaluative vehicles include:

i. End of Quarter Screenings:

No project is complete until shown (and discussed) publicly. At the end of every quarter we see every student project produced, from every level and area of the program (freshman through graduate), at a public screening. In the Winter and Spring, this is about 250 works and it requires 6 days and 4 or 5 evenings to view. In the Fall, it is only about 100 films, the majority of which are first term freshman work. These screenings, often an exhausting experience, are an important part of the educational and community experience for students. Seeing all films from the School also creates an overview that has been an incredibly efficient tool for revealing curricular strengths and weaknesses, faculty strengths and weaknesses, changing student attitudes, concerns and ambitions, and both individual and group student needs, allowing us to make timely changes for improvement.

ii. Student Representatives

Student reps participate in all weekly faculty/staff meetings and do not hesitate to report problems, concerns, and satisfactions related to all areas of their life as students, and to provide a student point of view for all our deliberations.

iii. Professional Advisory Board

Composed of successful professionals, mostly alumni, highly opinionated, aggressively concerned that we remain up-to-date, and in fact, ahead of the game, related to changing industry standards, practice, and technology.

iv. Curriculum Review

Yearly, we review our curriculum and make changes to the curricular structure, replace classes, update content for some classes, and add new classes. Student reps participate in these deliberations.

v. Review of Applicant Pool

For several years, we have been blessed with increasing applicant numbers of highly qualified candidates. We have been for several years the most selective program at RIT with the highest academic standing of incoming students of any program at RIT (average SAT score for 2002 entry was 1360). This reveals and continually affirms our greatest pride and joy–we have wonderful students–and provides us with the continual challenge of meeting their needs.

vi. External Festivals and Competitions

Our students are taught to be proud of their work (and to work at a standard they can be proud of) and to seek every opportunity for exposure and recognition. The prime opportunity for them is festivals and competitions, where they are winning more than our fair share of awards and recognition, with our undergraduates often winning against graduate students from well-established universities. This past year a School of Film and Animation freshman won the gold student Academy Award for animation for her winter quarter freshman project. That she could achieve this level of recognition in so short a time with us is both affirmation of the quality of the students we are attracting and of the effectiveness of our introductory production courses. For the past four years in a row, our undergraduate nominee has won a major grant from the Princess Grace Foundation (only one or two a year are awarded from nominations from 200 schools). These students are from different areas of our program (character animation, dramatic filmmaking, animation combined with live action, and experimental film) and their work reflects mastery of their traditional discipline as well as the successful expression of their unique visions, which relates to an important School objective.

vii. Alumni Surveys

Last year's alumni survey reveals that 84% of our BFA alumni are working in film or related industries, without having completed a graduate degree.

d. Strengths and Weaknesses

The strengths of the BFA in Film and Animation program include:

- Actual production is the core of the curriculum for all years of study, based on individual as opposed to group projects (although being a collaborative art, all students must crew for each other). The production sequence effectively leads to senior and graduate thesis projects that are minimally professionally competent and can serve as an effective portfolio for entry-level professional opportunity.
- Great students that are enthusiastic about mastering the art and expressing themselves, that

seem to take great pleasure in working day and night on their own, and each other's, productions.

- Faculty all of whom hired as a result of international searches, with significant experience and recognition as filmmakers, that are also great teachers, totally committed to their students and the pleasures of teaching.
- Enough facilities to go around for all students and up-to-date relative to current professional practice and technology.

The weaknesses of the BFA in Film and Animation program include:

- Insufficient and inadequate space with no sound stages or appropriate theaters. We not have enough class room or meeting space. We do not have centralized work areas or student lounge areas. We do not have space available for faculty to do creative work. We do not have drawing or stop-motion animation studios. Labs, editing suites, work stations are all packed together in crammed and crowded rooms where we often have to teach classes while other students are at workstations in the same room.

- Insufficient number of technical staff. The School of Film and Animation manages and maintains a huge inventory of all types of equipment and survive only because our technical support staff (of only 2) consistently works at a burn-out level and is admirably skilled and knowledgeable about everything from mechanical drive mechanisms in motion picture cameras or optical printers to video and computer electronics.

-Insufficient number of faculty members. Our level of achievement can only be maintained by the faculty continuously working at burn-out intensity. They deserve some relief. We also feel that we need to add more advanced specialized classes in areas we define as craft, in scriptwriting, and in areas of emerging technology–for which we would need additional faculty.

- Lack of student diversity. The students in the School of Film and Animation are RIT's best and brightest, but the majority is white male middle class. We would like the enrichment of more equally qualified women and students from varied cultural backgrounds.

e. Plans for Improvement

The School of Film and Animation is currently renovating space in the A-level of our building that has recently become available because printing facilities moved elsewhere. We have plans for the construction of an addition to this building that would include underground sound stages and above ground, beautiful theaters. RIT is currently involved in a capital campaign, which includes the goal of providing this facility. Our Advisory Board is also involved with the support of this effort. Resources to support

additional staff and faculty are also an active development goal for us and for RIT. We are working with the Office of Admissions to improve recruitment of the under represented minorities. We are developing with the Oneida Indian Nation a program of workshops in animation and video production to be taught by our students on the their reservation to expose potential students to our art and profession.

f. Issues related to Plan Approval and Final Approval for Listing

The MFA and BFA programs in the School of Film and Animation are well-established programs. The MFA was reviewed at the time of the last NASAD review. The BFA can be considered a new program only in the technical sense relative to NASAD review because, at the time of the last site visit, New York State was reviewing our proposal to change from a BS degree program to a BFA program. Both the BS and BFA curricula were submitted to NASAD and discussed with the site team at the time. State approval arrived shortly after that review. The transition to the BFA program was a relatively seamless process involving change in the existing BS program rather than establishment of a totally new program. We had already established, through the BS program, a student population (freshman through senior), faculty, support staff, operating budget, facilities, space, library holdings, a reputation resulting in ever growing numbers of applicants, and our mission and vision. The original BS program, a result of our origins as a service department offering cinematography courses in the Imaging and Photographic Technology program, minimized our ability to fulfill our mission and vision. The BFA program maximized our ability to realize our production orientation and production preparation goals. Since that time, we have become RIT's most selective

program, with the highest entrance academic standing. Our students regularly receive national and international recognition. Our growing alumni community has an impressive success rate. Since the last NASAD review, we have grown and evolved from a department in the School of Photographic Arts & Sciences to the School of Film and Animation, a highly regarded school in our own right.

g. Results from Plans for Improvement

Preliminary renovations for area vacated by printing facilities have been completed. Further renovations allowing development of specialized work areas will be begun this summer (2006). Additional faculty and staff needs to support new programs have been allocated. Recruitment of under-represented minorities has improved by the sponsorship and support of
specialized film festivals and workshops.

h. Program Outcomes 09 Update

Our school has taken huge strides since the last Middle States report. We have moved into a new facility with much more capability then we've ever had before. All the classes: production, history and theory, benefit from this new opportunity. Our curriculum is constantly being tweaked, but there has been no fundamental shift. Our students start making films from the day they walk in and continue until the day they leave. We've added some wonderful new elective choices for upperclassman including Underwater Cinematography, where they earn Open Water Scuba Certification, specialty

advanced 3D animation tools classes, and a new advanced editing course. There has also been more emphasis on creating summer opportunities studying abroad.

MFA in Imaging Arts - Film and Animation

a. Goals

The School of Film and Animation offers two areas of emphasis for students seeking the MFA degree in Imaging Arts. The first is Animation in which students may specialize in traditional, 2D computer, or 3D computer animation. The second area of emphasis is Film/Video Production.

b. Compliance

As shown in the curricular tables, the MFA in Imaging Arts program (with emphasis either in Animation or in Film/Video Production) is consistent with the NASAD guidelines for curricular structure for Film programs: at least 65% of curriculum devoted to the major requirements (with 10-15% being art history), and 25-35% general studies. Since many classes we teach could be considered support classes, but are required and not elective choices, we included them in the work sheet under the "Studio" column and only classes where there was choice under the "Elective" column. If “elective” in the tables is interpreted as "support," it might appear that we are unbalanced relative to support and studio classes (NASAD guidelines 25-20% studio, 30-35 support vs. School of Film and Animation 40-48% studio, 12-19% elective). However, this is simply an organizational confusion, and it is difficult to change since what would be considered studio and support in one area of emphasis might be considered in

reverse categories in another area. We believe we are in full accord with the NASAD guidelines and philosophy.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

Portfolio review is the primary way we judge proficiencies. We are interested in creative students and encourage them to demonstrate the breadth of their proficiency in all related fields: studio arts, photography, illustration, music, writing and any film or video production. If they are weak in filmmaking we require them to take a bridge course in film production and "story" the first quarter of their matriculation. The bridge credits earned do not count toward their degree.

ii. Research and professional tools required in the program

Students from non-English speaking countries must achieve TOEFL scores of 550 or higher on the paper test and 213 or higher on the computer exam. If we feel a student's portfolio is exceptional and they fall short of these scores we will accept them on the condition that they complete English proficiency courses within RIT while they complete a lighter than normal academic schedule. Although it is not a requirement, it is helpful to the applicant if they show evidence of experience with digital artist tools such as Adobe Photoshop, Illustrator and any of the film and animation software packages. Depending on their track of study, proficiency in certain professional tools such as Maya and Final Cut Pro is a de facto requirement for completion of assignments. Comprehensive training in these tools is provided within the curriculum. While creative

application is built into all our production classes, certain “tools” classes are required primarily to teach the skill sets of particular software packages as well as the professional practices of the related craft.

iii. Policy for comprehensive review of graduate degree candidates

There is no formal comprehensive review of a candidate other then they must have maintained a 3.0 or higher grade point average and must be completed with all their required coursework before they begin their thesis.

iv. Candidacy and final project requirements for the program

Typically a student is in their final quarter of full-time course work when they come before the faculty with their Thesis Proposal. Included in that proposal is a timeline for completion that must be approved by the faculty. The timeline dictates how many quarters will be needed for completion. The student must have also secured a tenured or tenure track school faculty member to be their chair and two other committee members either from the RIT faculty, another university or the professional marketplace. Their completed thesis must be screened for their committee and also the university “public”. If it is not shown at our normal school “end-of-quarter” screenings then the candidate must arrange for a screening on campus during the normal academic year and must provide adequate public notice and advertisement of the screening. Once the screening is completed the student must complete a written thesis report that is approved by his/her thesis chair. Finally the candidate must supply the RIT library with a copy of the production on videotape, film or DVD as well as a copy of the report. Another copy

of the production must also be provided to the school along with a release for the school to use it for non-profit promotional purposes. The purpose of this requirement is to simulate the practice and experience of professional and fine art filmmakers. They must control and complete all stages of production from initial concept through distribution. We actively encourage, and sometimes require them to submit their finished works to national and international film festivals so that they are ready and active in the professional filmmaking marketplace.

d. Results (See BFA in Film and Animation)

e. Strengths and Weaknesses (See BFA in Film and Animation)

f. Plans for Improvement (See BFA in Film and Animation)

Preliminary renovations for area vacated by printing facilities have been completed. Further renovations allowing development of specialized work areas will be begun this summer (2006). Additional faculty and staff needs to support new programs have been allocated. Recruitment of under-represented minorities has improved by the sponsorship and support of

specialized film festivals and workshops.

h. Program Outcomes 09 Update

We continue to attract strong candidates for this degree program. It has now evolved to around 50% of the applications coming from overseas. We have seen the most significant change in the ratio of Live Action to Animation interest. The original

MFA degree was designed for Computer Animation, but over the years we accepted, and provided classes for, Live Action students as well. Typically there were 5 animation students to 1 Live Action. This year, for the first time the number of incoming Live Action matriculating graduate students outnumbers those studying Animation. It is not too difficult for us to adapt to this shift, but we are surprised at the yield results. We will strive in the near future to hit a 50-50 balance because we find a strong graduate community in each of these areas significantly enriches our school and has a profound effect on the undergraduate programs.

School of Photographic Arts & Sciences

General Objectives for the School of Photographic Arts & Sciences

The overall objective for the School of Photographic Arts & Sciences is to prepare students for a wide range of careers in photographic and other imaging fields. Studies in photographic arts involve both technical and creative experiences for visual problem solving.

AAS in Photographic Illustration

a. Goals

The AAS in Photographic Illustration is primarily intended for students in programs that share the first two years of the curriculum who want a basic understanding of the field of photography and wish to add some basic knowledge and skill in the practice of photographic illustration. Students who have begun the BFA in Photographic Illustration, but who are unable to complete the full four-year degree, are also eligible to

receive the AAS degree upon completion of its requirements. No students are accepted solely into the AAS program.

b. Compliance

The first two years of the Photographic Illustration program are common for all students. They complete a year of design and drawing while simultaneously studying art history. The first year also includes a comprehensive study of black and white, color, and digital photography. The second year proceeds deeper into professional tools and articulation of aesthetics. Photographic theory and photographic history are presented in a parallel structure. A career seminar opens the concept of specialization in the second year.

c. Results

The experience and knowledge received in the AAS in Photographic Illustration program has greatly enhanced the graduate's ability to find meaningful employment and be more versatile photographers in general.

d. Strengths and Weaknesses

The strengths of the AAS in Photographic Illustration program include:

- offering a variable option to students in other programs;
- offering a degree to those unable to complete the full BFA degree.

There are no weaknesses in the AAS in Photographic Illustration program.

e. Plans for Improvement

This option continues to be successful and viable. Any changes will be the result of the evolution of the BFA in Photographic Illustration program.

f. Results from Plans for Improvements

Results coincide with those listed for the BFA in Photographic Illustration.

g. Program Outcomes 09 Update

Outcomes coincide with those listed for the BFA in Photographic Illustration.

BFA in Photographic Illustration

a. Goals

There are three areas of emphasis within the BFA program. The Advertising Photography emphasis strives to prepare the student to utilize their skills and creativity in the challenging world of commercial photography. Whether they are creating images for advertising agencies, editorial magazines, or designer's projects, students learn the technical and artistic skills necessary to create a successful photograph. The Fine Art Photography emphasis is designed to encourage and facilitate the student's artistic development, sensitivity and uniqueness as a visual artist. The goal of the Fine Art Photography emphasis is to provide the student with a rich potential for growth and change and for a lifetime of interesting and challenging work in creative imaging and related fields. The Photojournalism emphasis provides an education in both photographic technology and the artistry of capturing events, traditionally or digitally, for magazines, newspapers and independent projects.

b. Compliance

In the BFA in Photographic Illustration program, students are involved progressively with production of work, the experimentation of new technologies and aesthetics, the history of the medium and the materials being studied, critique and articulation of work in progress, as well as professionalism in presentation. All students are able to include independent study within the last year of their program. The synthesis of knowledge within each discipline is built into the curricular structure. With a progression of increasing competence, students learn to work independently, articulate their purposes within image creation, and build a body of work that is varied and yet focused in a selected field. Working in collaboration with a variety of students, they are able to cross the disciplinary boundaries to grow beyond their own classroom experiences. The objectives for each of the three areas of emphasis are designed to allow the student to make decisions as they grow within the photographic curriculum. The first two years are common for all students seeking the BFA in Photographic Illustration. They complete a year of design and drawing while simultaneously studying the history of art. The first year also includes a comprehensive study of black and white, color, and digital photography. The second year photographic courses proceed deeper into professional tools and articulation of aesthetics. Photographic theory and photographic history are presented in a parallel structure. A career seminar opens the concept of specialization at the beginning of the second year. Before starting the third year, the student is prepared to select a more specialized area of study in photography.

The third and fourth year in each area of emphasis is specifically designed to assist the student's growth into the selected field. The practical experiences in the classrooms and laboratories enhance the student's involvement in the discipline. Electives and selected core opportunities allow further specialization of the career plan. All students in the BFA in Photographic Illustration program are required to take fifty quarter credit hours in liberal arts. These courses include a two-course sequence in writing and literature, three courses in the humanities, two courses in the social sciences as well as six advanced level courses in either a minor or a concentration in liberal arts.

c. Results

All students are critiqued and graded in relation to the professional standards of their course level. The fourth year students experience levels of expectation and critique that are found in their chosen professional field. Students in the BFA in Photographic Illustration program are in contact with the professional in the field in a variety of ways. Participation in professional conferences, presentations from professionals, and evaluations from internship and cooperative education experiences all provide information about the competencies of our students and graduates. The monitoring of the student's movement through the photographic degree programs is accomplished through the course grading process. A student must maintain a 2.00 GPA to remain in good standing with the institution. The CIAS Student Services office monitors the academic record of each student every quarter. The institute's probation and suspension is strictly followed. The advising system allows the student to have direct contact with the advisor of choice to discuss career goals and decisions along the way. Current data from more

than 5,000 alumni indicate that nearly 70% are in photography related careers and fewer than 20% have left the field entirely.

d. Strengths and Weaknesses

The strengths of the BFA in Photographic Illustration program include:

- an exceptional level of alumni achievement including nine Pulitzer Prizes in photojournalism since 1979;
- a talented and professionally active faculty;
- extensive facilities including over 100 darkrooms, 30 studios, and various digital labs.

The weaknesses of the BFA in Photographic Illustration program include:

- uneven faculty skills in digital photography;
- lack of gender and ethnic diversity among faculty.

e. Plans for Improvement

The BFA in Photographic Illustration program needs to keep pace with the evolution of digital photography and the impact of that evolution on traditional photographic technologies. Today's professional photographer works with all available technologies. It is no longer sufficient to update equipment and knowledge on an occasional basis. The digital evolution calls for constant change. Recognizing the need for change, the faculty in the BFA in Photographic Illustration program have adopted a strategy of teaching photography digitally rather than teaching digital photography. Financial assistance has been obtained through faculty development grants and through industry support. The faculty is responding with educational and technological growth. It

has been recognized that educational costs can be decreased and, at the same time, learning productivity can be increased with a change in educational philosophy. The change has allowed the faculty to utilize the computer as a teaching tool as well as a production tool. As an example, teaching the photographic materials response to light and processing with the speed of the computer has increased the productivity of the classroom. The process of change has been difficult for some faculty to accomplish. The School of Photographic Arts & Sciences is supporting faculty development in digital technology areas with workshops and other activities. Significant improvement should be seen within a two to four year period. Consistent with RIT's aggressive program to increase the numbers of AALANA faculty (Section IE), the School of Photographic Arts & Sciences must make a concerted effort to create a diverse faculty and to increase the number of women faculty members.

f. Results from Plans of Improvement

The BFA in Photographic Illustration has increased the educational programming for faculty to enhance their knowledge and working practices in the digital photographic environment. All faculty members have been involved with the curriculum redesign calling for digital technologies to be the primary technology in all courses within the first two years. The curriculum redesign also includes the implementation of digital emphasis within the third and fourth years of each of the emphasis tracks, including: Advertising Photography, Fine Art Photography, Photojournalism and Visual Media. As faculty positions are vacated the department will follow Institute guidelines for expansion of ethnic diversity and gender.

g. Program Outcomes 09 Update

With strategic planning and development of curricular content and course offerings, Photographic Illustration continues to advance improvements in its four programs of advertising, fine art, photojournalism and visual media, a new program major. Improvements include: 1.) Digital practice and aesthetic emphasis in the first, common year of study for all program freshmen; 2.) Major renovation of School facilities for addition of digital-oriented classrooms and labs; 3.) Upgrading of equipment for classrooms, studios, and student use commensurate with requirements of program of study; and 4.) Addition of new faculty members in all programs. Continuing importance placed on student scholarships; internships per field of study; networking with industry and fine art professionals; and student participation in regional and national exhibitions, publications and competitions. Greater emphasis also placed on interdisciplinary practices and experiences across programs to ensure a student's successful academic and creative development in photography and its various expressions and professions.

MFA in Imaging Arts - Photography

a. Goals

The Master of Fine Arts in Imaging Arts - Photography is a comprehensive program of study for the advanced student interested in the critical thought and practice of photography and related media. The curriculum combines approaches in traditional photography and new digital media and technologies, addressing through integrated courses, seminars, and practica, the history, critical theory, applications, and aesthetics of

imaging in art and culture. The program's educational goal is to develop the intellectual, visual, and creative potential of its advanced students, in preparation of career pursuits in education, criticism, museums, galleries, and as professional artists.

b. Compliance

The MFA in Imaging Arts fully complies with NASAD standards, exceeding the professional goals required for graduate fine art imaging and photography programs. Established in 1969, the program was the first of its kind in the United States. Its curriculum set the standard of excellence for advanced study in fine arts photography, a curriculum modeled by other institutions of higher learning including the University of New Mexico's MFA photography department. The program continues to build on its unprecedented legacy by developing superior skills and understanding of the principles, processes, history, and aesthetics of traditional photography and new digital thought and practice. It provides one-of-a-kind opportunities for collaborative study in related media disciplines of video and film, traditional and digital printing technologies, computer and graphic imaging arts and design. It also emphasizes visual, verbal, and written communication in both a classroom and public forum. The program requires a visual thesis in the form of a public exhibition, accompanied by a verbal defense and a written thesis. Faculty reviews provide an evaluation method for judging process and achievement of stated goals of the graduate degree requirements. The program keeps apace of new developments in fine art photography and imaging by employing peer reviews and evaluations on an annual basis.

c. Issues Specific to Graduate Programs

i. Proficiencies required for entrance to the program

A baccalaureate degree, or the equivalent, from an accredited college or university is required for admission to the MFA in Imaging Arts - Photography program. A completed RIT Admissions application is submitted, including official college transcript(s) and two letters of recommendation. The Admissions application must also include a one to two page statement of artistic and educational intent, accompanying a visual portfolio of twenty (20) images. The program faculty reviews all completed applications, statements, and portfolios, selecting graduate students on visual and intellectual merit, in accordance with RIT departmental and admissions criteria.

ii. Research and professional tools required in the program

The MFA in Imaging Arts - Photography is a ninety (90) credit program of advanced study. Students must complete thirty-one (31) credits of required course work, including study in history, aesthetics, criticism, and practice of fine art photography and imaging. In addition to required courses, students must also complete forty-seven (47) credits of electives in related fields of study. In this way, students achieve a comprehensive educational experience that informs their core pursuits in fine art photography and imaging. Upon approval of graduate faculty and the completion of required course work, students advance to MFA candidacy and begin to prepare both their visual and written thesis in collaboration with a three-member faculty thesis committee. Students are required to complete twelve (12) research and thesis credits in fulfillment of their final thesis project.

iii. Policy for comprehensive review of graduate degree candidates

The comprehensive review of graduate students takes multiple forms. Concurrent with written and visual course critiques, examinations, and research papers, graduate students must install an end-of-quarter presentation of their work, accompanied by an artistic statement for faculty evaluation. After this critique, students receive a comprehensive written evaluation of strengths and weaknesses, and recommendations for improvements by the MFA faculty. The progress of students is also reviewed on a quarterly basis to verify that a 3.0 or higher grade point average is maintained through their course of graduate study.

iv. Candidacy and final project requirements for the program

In order to advance to candidacy in the MFA in Imaging Arts - Photography program, a student must demonstrate an understanding of, as well as a skilled competency in, the processes, principles, and aesthetics of their discipline. Decisions as to advancement to candidacy reside with MFA faculty, in accordance with RIT policies for graduate study. Once candidacy has been conferred, students begin their final thesis project consisting of three parts: 1) installation of a public exhibition; 2) a public defense of exhibition; 3) a written thesis. Students are guided in their thesis work by a three-person faculty committee that meets on a regular basis throughout the academic year to continually review and evaluate a student's progress. In its three forms, the final thesis is required so that students fully research, develop, and execute an

individualized course of study, realized in a completed, professional body of artistic work.

d. Results

The successes of the MFA in Imaging Arts - Photography program can be measured in many ways. The program maintains a regional, national, and international professional and educational reputation. Annually, it has received the highest ranking from *U.S. News and World Report*, a publication that evaluates fine art graduate photography programs in regard to professionalism of faculty, comprehensiveness of curriculum, student to faculty ratio, and access to specialized facilities and equipment. Worldwide interest in the program grows with over 100 applicants competing for the coveted 15 program placements available each year. Most importantly, the significant measure of the program's success is its graduates. The majority of graduates achieve employment in institutions of higher learning as educators, working as museum and gallery professionals, critics, and as professional exhibiting artists. The network of MFA alumni span the globe, and it is broad in its breadth and depth in all arenas of fine art and commercial photographic education, business, and artistic practice.

e. Strengths and Weaknesses

The strengths of the MFA program advance its vision for the future by building on the legacy of high standards of professional and educational practices and goals. These standards include a professional and skilled faculty, a comprehensive curriculum emphasizing integration of core and related media courses of study, individualized

student attention, one-of-a-kind facilities with access to the newest advances in technology and equipment. Importantly, a primary strength of the program is the cooperative and respectful environment of learning and dialogue among students, staff, and faculty, resulting in the acclaimed uniqueness and reputation of the MFA program.

The weaknesses of the MFA program represent opportunities for development and growth in support of the program's long-term goals. These include the addition of new faculty with specialized skills in digital imaging practices and aesthetics; larger student work spaces, classrooms, and facilities to successfully advance its digital curriculum; an annual visiting artist series that enables personalized interactions between students and faculty with international leaders in the history, aesthetics, and practice of photography and emerging digital imaging fields; a relocation and improved gallery space for multimedia display by students, faculty, and touring exhibitions; and lastly, improved resources for professional development for faculty, as well as full scholarships and thesis project funding for students of merit.

f. Plans for Improvement

The MFA in Imaging Arts - Photography program continually defines and implements improvements with both short-term and long-term results. Long-term improvements include further strengthening of the working relationship with the RIT Division of Development and Alumni Relations to secure funding for graduate students commensurate with that of competing universities; to secure funding and in-kind contributions for professional development training; and to identify and develop potential

contributors among alumni and business partners for improved curriculum, facilities, and equipment. Short-term results of the program's plans for improvement include the recognition of the need for a new multimedia gallery in the RIT Capital Campaign; the hire of a faculty member in art history specializing in photography and digital imaging to enhance program curriculum, exhibition and marketing projects; and the establishment of a Graduate Student Association with a faculty liaison to further deepen communication and cooperation, as well as enliven the spirit of collegiality and community among advanced students, staff, faculty, and administration.

f. Results from Plans for Improvement

The curriculum for the MFA program has been redesigned to include emphasis on the digital technologies and their impact in the fine art world. The remodeling of the Photographic complex will include new student workspaces and classrooms, as well as an expanded gallery space. The development staff is working with the MFA coordinator to enhance the scholarship and project funding for students.

g. Program Outcomes 09 Update

The MFA in Imaging Arts—Photography benefits from improvements in curricular content and course offerings, as well as renovation to School facilities and new equipment as detailed in the BFA in Photographic Illustration. Emphasis placed on recruitment of qualified students at national events has lead to greater selectivity of applicants to MFA program. New scholarship support and the addition of new faculty members assists in attaining and retaining qualified students. Innovative professional

development courses prepare students for timely completion of thesis requirements, achieving creative goals (exhibition and publication) and employment (creative artists, educators, gallerists or museum work). Greater percentage of students now graduates within three years of admission to program and secure employment upon graduation. Recognition of improvements to MFA program led to third place ranking among MFA photography programs in the nation by US News and World Report (2008).

School of Photographic Arts and Sciences

BS in Biomedical Photographic Communications

a. Goals

The Biomedical Photographic Communications program prepares students for photographic and imaging careers that are found in various science-related institutions, including ophthalmology and forensic laboratories, pharmaceutical companies, health care and medical research centers, as well as military bases and medical imaging companies.

b. Compliance

Biomedical Photographic communications program is a unique media program, blending applied imaging technology and science. While obtaining a strong foundation in the sciences, students design and produce instructional media projects using a variety of new media technologies that address the communications needs of medicine, science, and industry, including new digital imaging systems and web publishing where the

photograph is scientific data. Importantly, this program is the only one of its type in the United States. The curriculum includes topics such as biomedical photography, close-up and high magnification photography, studio lighting for small objects, ethics, and ophthalmic diagnostic imaging, desktop and web publishing, computer graphics, biology, mathematics, and the fundamentals of video. Students will also be introduced to a wide variety of career options through the program's interactive lecture series with professional biomedical and new media experts, which assists them in identifying and securing a summer co-op internship to gain real world experience in the biomedical photographic communications field.

c. Program Results

85% placement and high employability following graduation

d. Program Strengths and Weaknesses

Program Strengths:

- Student body size
- Student high school aptitudes
- Curricular flexibility
- Background and reputation of the teaching faculty including program history and alumni

contributions

- Dedicated teaching labs

Program Weaknesses:

- Number of teaching faculty
- Evolving Equipment needs relative to school's needs

e. Plans for Improvement

The Biomedical Photographic Communications Program is the nations only program in this discipline and how to promote itself both internally and externally is constantly a challenge. Consequently BPC has wrestled with many small issues related to its perception and educational outcomes. Based on surveys to various employers and alumni, the faculty have constantly evaluated its curriculum which has led to its current sequencing and content selection. BPC leads most often to photographic positions within the field of ophthalmology where jobs may exist weekly for a mere 12-15 graduates annually. In response to the demand, we are currently have plans to run 2 sections of the basic course.

f. Results of Plans for Improvement

The Bachelor of Science program in Biomedical Photographic Communications has been implementing the Institute curriculum changes to meet standards for BS programs over the last 12 months. The BPC curriculum now requires a total of 90 credits of science and liberal arts coursework. This new Institute mandate provides students the opportunities to complete various concentration tracks and minors offered both within the College of Imaging Arts and Sciences as well as the College of Liberal Arts, and the College of Science. Other new opportunities seem to be arising with collaborations with The School of Biological Sciences. Several Biomed courses are now cross listed in this

School and several special topics (experimental) courses will be run for the first time in the spring term (063).

g. Program Outcomes 09 Update

The Bachelor of Science program in Biomedical Photographic Communications has implemented the Institute curriculum changes to meet standards for BS programs over the last 12 months. The BPC curriculum now requires a total of 90 credits of science and liberal arts coursework. This new Institute mandate provides students the opportunities to complete various concentration tracks and minors offered both within the College of Imaging Arts and Sciences as well as the College of Liberal Arts, and the College of Science. New opportunities seem to be arising with collaborations with The School of Biological Sciences. Several Biomed courses are now cross listed in the College of Science and several special topics (experimental) courses have been offered over the last few years.

BS in Imaging and Photographic Technology

a. Goals

- Educate our students with fundamental and state-of-the-art knowledge and skills necessary to

  obtain gainful employment in diverse application areas within the broad field of photography and imaging.

- Provide industry with highly qualified and motivated graduates.

- Contribute to maintaining the position of the School of Photographic Arts and Sciences as a

world leader in imaging and photographic education.

- Serve as a technical resource to all School of Photographic Arts and Sciences students and

faculty.

- Maintain and broaden the technical foundation of the School of Photographic Arts and

Sciences.

- Provide an educational conduit within RIT/CIAS between the arts and the sciences.

b. Compliance

The Imaging and Photographic Technology program consists of an interdisciplinary curriculum blending a foundation in contemporary commercial/professional photography using traditional and digital imaging tools with technology based coursework emphasizing an understanding of the technology and science that provide the underpinnings for a wide variety of conventional and non-conventional photographic and digital imaging applications. It combines a strong foundation in contemporary commercial and professional photography with specialized studies in areas as diverse as digital image processing, physics, mathematics, digital photography, sensitometry, color science, photo instrumentation, optics, photographic processing, technical writing, quality control, etc. The program also requires two cooperative education work blocks prior to graduation.

c. Results

Historically, placement opportunities in photography and imaging have been strongest in the technical areas. Even for those graduates seeking picture-making positions, the technical training they received at RIT has often been the key that gained them entrance positions in photographic organizations doing work related to their picture-making area of interest. The faculty of the department feel there is a direct connection between the academic preparation that the program's students receive and their success after graduation. This is reflected in either the quality of the employment offers garnered by the graduates or the success in pursuing graduate school opportunities. In each area Imaging and Photographic Technology students have excelled. A listing of all graduates of the program going back to the mid-1980s is available online at: http://www.rit.edu/~andpph/ipt-gradjobs-2003-file.html. Graduates of the program have gone directly into PhD and MS Optics programs at the University of Arizona and various other MS programs locally and statewide. Placement opportunities for graduates have been significant with starting salaries in the $40K-60K range.

d. Strengths and Weaknesses

The strength of the Imaging and Photographic Technology program has been the emphasis on a multi-disciplinary approach to the mix between required and elective courses as opposed to a monolithic and specialized listing of program requirements. This has been strengthened by the inclusion of a requirement for two Cooperative Education work-blocks. A weakness of the program, in a manner of speaking, is exactly the same as the reason for its success. Obviously something gets lost if one does not specialize for

4 years. But the faculty of the department feels strongly that the outcome speaks loudly for the fact that diversity is preferable to specialization, at least within the context of the reason for the existence of the Imaging and Photographic Technology program.

e. Plans for Improvement

As the industry has been changing the faculty of the department will need to make adjustments to the curriculum to meet the changing needs of the imaging industry. This means that a greater emphasis on digital technology needs to me made possibly by renovating facilities and installing a Computer Imaging laboratory. Also, RIT has instituted a new format for all programs but this directive will have a significant impact on the Imaging and Photographic Technology program. Curriculum updates and adjustment to meet the new guidelines without compromising the program goals and objectives will need to be implemented. As a result of the departure of a full-time faculty member the faculty will need to make adjustments to staffing or course offering in order to maintain the viability and vitality of the program.

f. Results of Plans for improvements

The Bachelor of Science program in Imaging and Photographic Technology has been implementing curriculum changes to meet Institute standards for BS programs. The curriculum now includes more science and liberal arts electives and gives its students the opportunity to complete various concentration tracks and minors offered both within the College of Imaging Arts and Sciences as well as the College of Liberal Arts and the College of Science. A new laboratory in Computer Imaging has been established to

prepare students in the areas of tone reproduction, color management and image analysis. The plan for the future is to expand this laboratory's capabilities in the areas of hardware and software. In addition, the Imaging and Photographic Technology faculty have been planning and gearing up for undertaking the delivery in 2006-7 of the Materials and Processes of Photography course to over 325 first and second year students in the School of Photographic Arts and Sciences. This is a one-year "bubble" and next year the number of students will again go back to serving only 200 students and then they will all be freshmen.

g. Program Outcomes 09 Update

The Bachelor of Science program in Imaging and Photographic Technology has implemented curriculum changes to meet Institute standards for BS programs. The curriculum now includes more science and liberal arts electives and gives its students the opportunity to complete various concentration tracks and minors offered both within the College of Imaging Arts and Sciences as well as the College of Liberal Arts and the College of Science. A new laboratory in Computer Imaging has been established to prepare students in the areas of tone reproduction, color management and image analysis. In addition, the Imaging and Photographic Technology faculty have reorganized and streamlined the delivery of the Materials and Processes of Photography course which is now required of over 200 first year students in the School of Photographic Arts and Sciences.

School of Print Media

BS in Graphic Media
BS in New Media Publishing

a. Goals

The goal of the School of Print Media is to be the top university program in graphic communications (formerly known as graphic arts.) To do this, students who graduate from our programs will:

- demonstrate effective communication and leadership skills
- utilize the appropriate systems for the creation and distribution of documents across all media

platforms

- understand the relevant scientific and technical foundations for creating and distributing

documents

- be able to apply the scientific method to solving problems in the production and distribution of

information products across media platforms

- be able to create a profitable business in the publishing, media, or printing technology

industries

b. Compliance

The program is comprised of required courses in materials and processes of electronic and print communications, pre-media workflows, selected topics in the

management of media enterprises (financial management, marketing and operations management courses), and industry analysis courses. Students can also focus their studies in one of six concentration areas: enterprises, workflows, print sciences, print processes, and news media, and 3-D modeling.

c. Results

We assess the achievement of our objectives in one of two ways. First, our students enter a number of competitions sponsored by the industry. We have had great success in these competitions. For example, in 2005-6, the RIT chapter of TAGA won the overall best publication award. This is the 6th consecutive year RIT has been so honored. One student (class of 2006) won the Best Poster in Award April 24-27, at the 2006 TAPPI Conference in Atlanta GA, his paper was titled “Dye Aggregation Initiated by Ink Jet Printing." In addition, another student was the 2005 PLGA scholarship recipient and a third is this year's recipient of the Packaging & Label Gravure Association International scholarship, one of many competitive scholarships our students compete for. The recipients receive a check of $1,500 and are recognized at the PLGA Spring Conference in February with conference fees and lodging covered. We also assess the feedback from employers. All students in this program must complete two co-op blocks. Employers are asked to complete an evaluation form of the student with a 5-point rating scale. We have data on 235 students who completed co-ops between Summer, 2004-Winter, 2006. The averages on the five key questions are:

- Overall competence - 4.56 (out of 5, where 5 = excellent)

- Ability to learn - 4.67

- Judgment - 4.45

- Communication skills - 4.43

- Leadership - 4.00

d. Strengths and Weaknesses

The strength of our program is in the number of employers who come to RIT to recruit our students. Our weakness is being able to attract students to this major. Our enrollment has been declining over the last three years. Our historical strength in serving the printing and publishing industries is both a blessing (for placement) and a curse (for enrollment). We have increased our marketing efforts, changed our core curricula and added new concentrations, but we have yet to break through to a large proportion of high school students.

e. Plans for Improvement

Our plans have focused on increasing our enrollment both through curriculum change and outreach. We have hired a part-time recruiter and his efforts are bearing fruit. We have completely revamped the Graphic Media program in 2005 to focus on smaller core, add back print process courses, and add new concentrations and areas of focus. For our New Media Publishing program, we have continuously updated our courses to reflect the interactive media.

f. Results of Plans for Improvements

For outreach, we are hosting the annual conference of the IGAEA graphic arts educators in summer, 2007. For curriculum changes, we are exploring two new concentrations to add to our programs, one in Direct Advertising and one in Interactive Media.

g. Program Outcomes 09 Update

We have consolidated our two undergraduate majors into one under the name of New Media Publishing. We hope this change will address our recruitment problems of attracting high school students to our legacy printing major. In addition, we have concluded a research study of our alumni in Spring, 2008. The feedback was very positive – over 90% of the responding alumni reported that their education had adequately prepared them for their current jobs.

MS in Print Media

a. Goals and Objectives

The School of Print Media's graduate program will prepare its graduates to take managerial and scientific leadership positions in the printing and imaging industries. Students who graduate from our programs will be able to:

a. Create original research in a topic related to printing, imaging, or document production management.

b. understand the relevant scientific and technical foundations for creating and distributing documents

c. understand the economic and technical forces that shape the industry

b. Compliance (descriptive essence of the program)

The program is comprise of required courses in materials and processes of electronic and print communications, pre-media workflows, selected topics in the management of media enterprises (financial management, marketing and operations management courses), and industry analysis courses. Students can also focus their studies in one of the following: business, information technology, imaging science, packaging, and sales.

c. Results

We assess the achievement of our objectives in one of two ways. First, our students enter a number of competitions sponsored by the industry. For example, in 2005-6, one of our graduate students won the Best Paper award at the national TAGA competition. We also assess the program by its placement rate. We have a 95% placement.

d. Strengths and Weaknesses

As with our undergrad programs, the strength of our program is in the number of employers who come to RIT to recruit our students. Again, as with our undergrad program, our weakness is being able to attract students. Our enrollment has been declining over the last three years. Our historical strength in serving the printing and

publishing industries is both a blessing (for placement) and a curse (for enrollment). We have increased our marketing efforts and added new concentrations.

e. Plans for improvement

Our plans have focused on increasing our enrollment both through curriculum change and outreach. For curriculum changes, we have added a certificate program (4 courses) in Digital Printing and Publishing. Students can take this option on-line and finish in one calendar year. For outreach, we are increasing our personal contact with 4-year graphic communications programs.

f. Program Outcomes 09 Update

Our curriculum continues to be updated. In 2008, we added more flexibility to the program by reducing the required courses by two and allowing students to use professional objectives in their place. In addition, we created a new scholarship program with designated feeder schools in the USA to increase domestic student enrollment.

E. Philip Saunders College of Business (EPSCOB)

E. PHILIP SAUNDERS COLLEGE OF BUSINESS
EXECUTIVE SUMMARY
MARCH 1, 2009

This summary provides the status and recent history of learning outcomes assessment activities within the E. Philip Saunders College of Business (SCB). Details are provided in a separate "Overview" document and in separate program reports.

RIT and SCB are accredited by AACSB International in addition to Middle States. We therefore structure learning outcomes assessment processes, whenever possible, to serve both sets of standards. In April 2003, AACSB promulgated a new set of Assurance of Learning (AOL) standards for business accreditation. For purposes of this report we will refer to AOL and assessment interchangeably. From 2003 until early 2007, SCB built an AOL system, including aligning program goals with mission and rubrics, and development of policies and procedures to guide the system. In February 2007, SCB appointed a new Dean, Dr. Ashok Rao, who raised the issue of mission review shortly thereafter. The SCB mission statement had not been significantly revised since 2001, and a mission statement that reflects the changing environment of business and RIT was adopted. This necessitated a re-evaluation of programs and goals. In 2007-2008, the faculty agreed on a new set of goals for the two largest programs, the Bachelor of Science, which enrolls approximately 850 students, and the Master of Business Administration program, which enrolls about 300. That year the faculty also began developing grading rubrics for use in assessing the new goals. Two constructs in the new mission statement led to program goals designed to be truly distinctive, addressing

innovation, technology, and commercialization. Thus, over the past two years, SCB has developed new goals or clarified old goals for its two largest programs. Some review and revisions have also been made to the other smaller programs, which is discussed in the individual reports. Significant progress has now been made over this period in 1) redefining mission, 2) re-designing program goals, 3) determining the locus of each goal in each program in the required curriculum for each program, 4) developing rubrics through which to measure demonstrable student achievement with respect to each goal, 5) measuring student learning, and 6) implementing curricular changes in response.

Status of College Programs and Course Outlines

Following on the next page is a College Program Summary Table. The status of assessment across the programs varies. We prioritized the largest programs, but progress is being made on all.

The second table summarizes the status of all course offerings. This helps ensure and demonstrate that our inventory of course offerings is contemporary and incorporates appropriate learning outcomes. The table below summarizes status as of February 2009.

Assessment Issues and Challenges

The greatest challenge SCB has faced has been in measuring student learning in a way that informs faculty of the degree to which goals were achieved. Multiple attempts were made at assessing each program prior to development of the revised mission. A particularly challenging issue was developing rubrics and evaluative assignments that

College Program Summary Table (C= Complete, IP=In Progress)

Program Name	Program Outcomes Defined	Assessment Methods Identified	Course Outlines have learning outcomes	Data Collection	Report shows data, decisions, results analysis	Assessment plan fully implemented with continuous review	Comments
Undergrad. BS	C	C	C	C/IP	C/IP	C/IP	Some goals assessed, rest in process. All will have been assessed by Spring 2009.
Regular MBA	C	C	C	C/IP	C/IP	C/IP	
Executive MBA	C	C	C	IP	IP	IP	All goals will be assessed by Fall 2009.
MS in Finance	C	C	C	C/IP	IP	IP	All goals will be assessed by Spring 2009.
MS in Mgmt.	C	IP	C	IP	IP	IP	All goals will be assessed by Fall 2009.

Master Course Syllabi, Summary Analysis

Description	**2006-2007**		**2008-2009**	
Master Course Syllabi Status	Number	Per Cent	Number	Per Cent
Active Courses	**230**	100%	**262**	100%
MCS Submitted and Approved	224	97.4%	261	99.6%
MCS Under Review	5	2.2%	1	0.4%
MCS Missing	1	0.4%	0	0%
Other	**443**		**441**	
Inactive, not in current bulletin	368		399	
Independent study, Co-op, Course numbers used for transfer credit	75		42	
TOTAL	***673***		***703***	

Assessment Issues and Challenges (continued)

clearly separated the various traits within the program goals. Earlier versions of some of the goals were drafted in a way that the faculty had difficulty in determining areas needing improvement. We believe that problem has been completely addressed in the revised goals, and the system we have now built is sustainable.

The immediate challenge facing SCB is ensuring that we continue to build an efficient, robust system of assessment. Significant progress has been made. Assessment of certain goals, however, remains very challenging, including the goals for innovation and commercialization. These are distinctive goals for RIT, but as such there are no "best practices" to follow, as is true of many more common goals in business schools. In addition, developing measurable goals for the EMBA program is very challenging due to the nature of the enrolled students, as they have very advanced business skills and knowledge. A primary focus is on elevating *leadership* skills, which is difficult to measure. A dedicated task force continues this work. Detailed plans for Spring 2009 and academic year 2009-2010 are provided in the program reports but, to summarize, for the

rest of this academic year, specific actions in process or that will be completed are: (1) data collection to assess five learning goal in the B.S. program, and all six goals in the MBA program; (2) analysis of data already collected for all six learning goals in the M.S. Finance program; (3) data collection to assess three of the six EMBA learning goals will occur during the Spring and Summer quarters; and (4) data collection to assess all five goals in the M.S. in Management is scheduled for Spring and Summer 2009. Scheduled activities for 2009-2010 includes curriculum committee follow-up on all data collection and analyses compiled this year. In addition, B.S. goals that are not being assessed this year will next be assessed in either fall or next winter quarter. Two EMBA goals, Applied Focus and Global knowledge, will be assessed next fall, as will the goal addressing business ethics. All of this is part of a systematic cycle to assess each goal at least twice every five years.

Closing the Loop

SCB has addressed assessment results on several goals. Highlights include:

1. A proposal to require a business ethics course for every B.S. student has been passed. Change to the curriculum is expected to be implemented in fall 2009. This also initiated a discussion on requiring an MBA ethics course.
2. Data on student writing have resulted in a proposal to require formal writing in courses at each undergraduate level and in a minimum of two MBA courses. The College is working with an external expert to develop a model that would elevate different complementary skills in each year of a given program.

3. Data on oral communications and teamwork suggested that overall students were demonstrating "adequate skills." However, certain traits for each goal needed improvements, and they are in the process of being implemented.
4. Overall inconsistency in rubric specificity and somewhat ad-hoc assessment processes resulted in our curriculum committees developing more comprehensive approaches to ensuring each goal is addressed in multiple courses.
5. To ensure more systematic and rigorous record keeping and reporting processes, we have licensed a web-based tracking system known as STEPS (Student Tracking, Evaluation, and Portfolio System) from California State University at Chico.
6. To better align the B.S. curriculum with the mission, a cutting-edge, three-course freshmen sequence has been developed which synthesizes innovation, technology, creativity, and commercialization.

All of these activities and others are discussed in the separate "Overview" document and program reports.

E. PHILIP
SAUNDERS
COLLEGE OF BUSINESS

LEARNING OUTCOMES ASSESSMENT REPORT

COLLEGE ASSESSMENT OVERVIEW

MARCH 1, 2009

E. PHILIP SAUNDERS COLLEGE OF BUSINESS
OVERVIEW OF COLLEGE OUTCOMES ASSESSMENT
MARCH 1, 2009

Introduction

This overview provides an explanation of the organizational aspects of learning outcomes assessment activities within the E. Philip Saunders College of Business (SCB). Greater details are provided in the separate program assessment reports and the Executive Summary.

This overview provides the following:

- The College Mission Statement and its relationship to learning outcomes assessment.
- A summary of the academic programs within SCB.
- A description of the roles and responsibilities for learning outcomes assessment within SCB.
- A brief summary of assessment challenges and achievements.

Details about assessment activities within individual programs are located in individual program assessment reports.

Mission Statement and Alignment with Program Goals

As noted in the Executive Summary, in addition to Middle States, SCB is accredited by AACSB International. Each body promulgates or implicitly suggests that we have an appropriate mission which is aligned with program goals and curriculum, and that samples of student work must be periodically evaluated against such goals to determine whether students are achieving program goals. Determining appropriate curricular changes based on this data as needed, so called "closing-the-loop," follows. This is in essence a continuous improvement system.

The starting point for establishing this system is the Saunders College of Business Mission Statement, provided below.

MISSION STATEMENT

The Saunders College of Business and RIT deliver experience-based managerially relevant education dealing with the commercialization of technology and the strategic and innovative uses of technology to create a distinctive competitive edge.

The Saunders College of Business aids people to become more globally mature and to reach their potential by helping:

- Students develop skills to be effective in diverse cultural settings
- Faculty to grow intellectually in areas of expertise
- Managers create enterprises that leverage technology and resources around the globe
- People develop a sturdy ethical framework
- Build a collegial environment for students, staff and faculty.

Endorsed by the Saunders College of Business Faculty on April 20, 2007

In April 2003, AACSB published a completely new set of standards for business accreditation. Several of these standards directly relate to "Assurance of Learning" (AOL), a more comprehensive approach to curricular management and assessment. (For purposes of this report we will refer to AOL and assessment interchangeably.) From 2003 until early 2007, SCB built a system of assessment, including program goals aligning with mission, measurement rubrics, and policies and procedures to guide the system. However in February 2007, SCB appointed a new Dean, Dr. Ashok Rao, who led the first mission review for the College in more than six years, with the resultant statement above. This necessitated a re-evaluation of programs and goals, to ensure alignment. In 2007-2008, the faculty agreed on new sets of goals for the two largest programs, the Bachelor of Science, which enrolls approximately 850 students, and the Master of Business Administration, which enrolls about 300 students (combined full- and part-time). That year the faculty also began developing grading rubrics for use in assessing the new goals. While the essence of some of the previous goals remained (e.g., communication skills, global awareness, business ethics), two goals designed to be truly distinctive (relating to innovation and product/service commercialization) were introduced. In addition, all other goals still needed to be revised somewhat to better align with the mission and to try

to facilitate measurement for assessment purposes. Thus, much of the past year was invested in re-drafting the language of some of the goals and also developing measurable objectives to reflect the meaning of the goals. Some of the details of this process are guided in part by AACSB pronouncements.

SCB Academic Programs

The SCB offers an undergraduate Bachelor of Science (BS) degree with options for seven different majors.[1] All BS students must complete a common core of courses, and thus for assessment purposes this degree is defined as a single program. SCB also offers multiple graduate degrees serving different constituent groups of students: the "regular" MBA (which includes a 4+1 program, a "Fast Track" MBA, an MBA focused on public accounting, and a part-time study program in addition to the traditional full-time schedule), the Executive MBA, and Master of Science degrees in Finance and in Management.

Several major changes have occurred in recent years in our graduate degree offerings. The Prague MBA (PMBA) has been discontinued. The former M.S. in International Business was transformed into the current M.S. in Management with tracks in International Business and Technology Management. In addition, a new M.S. in

[1] We note that extant in our College Bulletin is a B.S. program in Consumer Finance, developed in 2007-2008. However, to date no students are enrolled in the program, and the program is dormant. Though we have a fundamental assessment plan designed for it, for purposes of this report and for purposes of an upcoming AACSB review this program is considered "excluded." We have not yet determined whether we will officially terminate this program, but for now it should be considered terminated.

Innovation Management has been approved by the college and the university (though we have not yet admitted any students). [2]

Thus, SCB outcomes assessment activities are organized into five academic programs:

1) Bachelor of Science (BS)
2) Master of Business Administration (MBA)
3) Executive Master of Business Administration (EMBA)
4) Master of Science in Finance (MSF)
5) Master of Science in Management (MSM)

Separate assessment reports for each of these programs are being provided as part of this overall submission.

SCB Roles and Responsibilities for Learning Outcomes Assessment

The SCB annually convenes a standing Accreditation and Assessment Committee (AAC). This was formerly known as the Learning Outcomes Assessment Committee. The AAC is charged with the following as principal responsibilities:

1. Oversee continuing development and administration of a robust learning outcomes assessment system. This includes all aspects of this system, i.e., engaging stakeholders in the process, providing advice and counsel as needed, maintaining knowledge of contemporary best practices, implementing assessment plans or supporting implementation by others, and all other typical charges of this type of structure.

[2] Similar to the B.S. in Consumer Finance, we also have a registered M.S. program in Innovation Management. That program, too, has enrolled no students. We again have a basic assessment plan for it, but for purposes of this report and that of AACSB it we believe it should be excluded. AACSB has officially concurred that this program will be excluded from our October 2009 maintenance visit.

2. Produce an annual summary of assessment results and proposals for subsequent activities and initiatives.

3. Provide this summary to appropriate groups (discipline-specific faculty, graduate and undergraduate curriculum committees, college and university administration) for the purpose of curriculum review and improvement.

The university plan for student outcomes assessment includes specific components for each college:

- Ensure course outlines remain current and have embedded appropriate course level learning objectives.
- Ensure each academic program has appropriate goals and objectives.
- Identify where in the curricula the goals are addressed.
- Develop appropriate assessment methods for each goal.
- Establish assessment methods and benchmarks.
- Implement the assessment plan.

Within the SCB, discipline faculty and faculty committees are responsible for the first three items with the approval and coordination of the SCB's graduate and undergraduate curriculum committees. The AAC is directly responsible for the remaining items, but only in conjunction with the discipline faculty and committees. The AAC must develop, implement, and report on learning outcomes assessments for the program learning goals of these programs. As they relate to the other items, discipline faculties are responsible for M.S. program learning outcome assessments, in coordination with the AAC. In all cases, individual faculty are responsible for assisting in administering assessments through embedded modules, or specific assessment

instruments in the classes. In addition, a basic charge to each curriculum committee (undergraduate, graduate, and EMBA) is to devote at least one meeting per year to a review of assessment information, making appropriate recommendations for curriculum changes. (From a practical standpoint, these committees routinely devote more than one meeting per year to assessment, but the one-year policy minimum formally establishes this charge.) The Associate Dean for Teaching and Curriculum, the Senior Associate Dean, and the Dean of the College all provide leadership, guidance, and support to the overall assessment processes. The Dean also serves as the liaison to the RIT Provost, other senior administrators, and AACSB with respect to assessment and curriculum management.

Summary of SCB Outcomes Assessment Challenges and Achievements

A table in the Executive Summary reports the current overall status of each program, and separate detailed reports are also provided for each. This section will provide a brief, summary explanation.

As explained in detail elsewhere, there have been significant changes in the leadership at SCB over the past several years. Among the changes was appointment of Dean Rao in April 2007. As noted, a new mission statement has resulted in new program goals, new rubrics and some changes to the curricula. A principal assessment challenge has been the lack of stability in the composition of the leadership team, in SCB and at RIT. Changes in strategic direction have naturally resulted in changes in the outcomes assessment system. However, also as noted elsewhere with some detail provided, over the past two years SCB has been building a more robust system *that is viable and*

sustainable. This is somewhat different from the system built from 2003-2007. That system relied on ad-hoc faculty and staff assignments to engage in assessment activities. It also assumed qualified outside business professionals could be recruited in a timely manner and engaged in assessment. A standing committee did exist and it invested a great deal of effort in moving assessment forward. The committee did make meaningful, useful progress, but the ad-hoc nature of appointments created challenges in recruiting appropriate numbers of faculty and others with the right qualifications to perform the necessary work.

This challenge has, we believe, been addressed. The system now in progress embeds all program goals in various required courses, spreading the goals over different courses in each program. The assessors are the faculty teaching those courses, as part of their workload for teaching. The student work to be assessed is generally a part of the course, i.e., it may double as being graded for course credit *and* being evaluated for assessment purposes for the overall program. There has been enormous efficiency gained in having the many faculty teaching the courses in which the goals are embedded acting as evaluators of demonstrable student knowledge of the goals. That explicitly serves the formal assessment system while informally serving to alert the "front-line faculty" of issues and challenges for students in mastering the most mission-critical course materials. We believe this change is having a very positive effect on both actual assessment activities and faculty perception with regard to managing workload to include assessment. We see this as a challenge that is turning into an achievement.

Another notable achievement has been our adoption of the STEPS system. Since 2007 SCB has licensed the "Student Tracking, Evaluation, and Portfolio System."

STEPS is a database application developed at the California State University at Chico for supporting the assessment process and is in use by a number of AACSB-accredited schools. It provides us with a central locale for storage of student samples, documentation of mission, goals, and rubrics, as well as mechanisms for faculty evaluation of student work. Put differently, STEPS is a one-stop web shop for all of our assessment documentation, increasing efficiency and providing well-defined organizational and storage capacity for all of our assessment processes.

Summary

This document provides background information for context to understand structure and recent history of assessment activities at the Saunders College of Business. Assessment reports on each of the individual programs follow.

Kate Gleason College of Engineering (KGCOE)

OVERVIEW

The Kate Gleason College of Engineering (KGCOE) enthusiastically embraces the Engineering Accreditation Commission's (EAC) criteria for accrediting engineering programs referred to as Engineering Criteria 2000 (EC2000). The EAC is one of four accreditation commissions that exist within the Accreditation Board for Engineering and Technology (ABET). The EAC of ABET was the first of the four commissions to adopt outcome based assessment. Currently, and since 2001-02, all EAC accreditation visits are made under the outcome based EC2000 criteria. Under EAC Criteria 2000 each engineering program seeking accreditation or reaccreditation must have in place an assessment process and be able to demonstrate that their graduates have the abilities set forth in the program's defined outcomes. RIT sought reaccreditation for all undergraduate engineering programs in the 2004-05 accreditation cycle and, hence, has implemented the outcome based Engineering Criteria 2000 guidelines. Notification by ABET was received in August of 2005 that all undergraduate engineering programs visited, at that time, within the KGCOE had met the EC2000 standard.

The April 10, 2007 Middle States Report acknowledged the credibility of the ABET process by stating, "Through the structure and support provided through professional accreditation practices, RIT has several outstanding assessment programs that can be observed across the College of Business via AACSB accreditation and the engineering programs via ABET." All the BS engineering programs with the exception of Chemical Engineering and Biomedical Engineering (both new programs) have completed the ABET assessment cycle multiple times. Both of the new programs have developed ABET consistent assessment plans. Implementation of

these plans for the two new programs will occur in a timely fashion over the next few years as the programs are progressively populated with students.

Selected Examples of Undergraduate Program assessment Improvements/Status

Biomedical Engineering - New program - Assessment Process Defined.

Chemical Engineering - New program – Assessment Process Defined

Computer Engineering - Program educational objectives and program outcomes underwent a periodic review with the CE industrial advisory board. Many program improvements made as documented in the CE Middle States assessment report.

Electrical Engineering – Assessment process enabled improvements in curriculum. Assessment resulted in revised/improved courses in probability/statistics, design, programming, and better alignment of electronic courses with other majors.

Industrial Engineering - In the undergraduate program, application of the assessment plan has led to improvements in teaching, learning, and advising. In AY07-08, the ISE faculty in conjunction with their industrial advisory board reviewed all program educational objectives and program outcomes and made some fairly significant changes.

Mechanical Engineering – The mechanical engineering faculty has significantly revised the ME assessment process with a goal of being better able to sustain the process. This revision was a direct recommendation from the last ABET visitor. Triangulation and trend analysis has been performed

Microelectronic Engineering – Educational Objectives and Program Outcomes are currently being reviewed to assure currency.

Graduate Programs

Although most graduate programs within KGCOE have not completed the assessment cycle, progress has been made. Only the PhD program has completed the assessment cycle. However, multiple cycles have not been completed and in turn this limits any trend analysis. Selected examples demonstrating progress in KGCOE graduate program assessment can be seen through the following examples.

Computer Engineering - Educational objectives and program outcomes have been reviewed and revised. Exit interviews and alumni surveys are being implemented.

Electrical Engineering - EE completed periodic review of program educational objectives and program outcomes.

Industrial Engineering - Over the past year, an integrated assessment plan has been developed that allows for the continuous review of the ISE graduate programs. This plan is detailed in the ISE assessment matrix within the ISE Assessment Report. Graduate program objectives and methods assessment are defined, graduate course outlines with learning outcomes have been developed, and data collection is on-going.

Mechanical Engineering

Microelectronic Engineering – Student input through focus groups with faculty confirmation has given priority to creating a BS/MS degree. The BS/MS degree in Microelectronics is underdevelopment with implementation expected in the summer of 2009.

Applied Statistics - Assessment metrics continue to be collected in CQAS in accordance to the CQAS Program Outcomes Assessment Matrix. Performance on individual projects during required coursework are used to validate specific program outcomes. The response rate on the mailed-out alumni surveys continues to be very

low. An online version of the alumni survey has been developed, and piloted. This version of the survey will be implemented in the spring 2009 as a replacement for the mailed survey.

Product Development - Exit surveys and alumni surveys have been created and implemented. The full assessment plan will be implemented in the 2009-2010 academic year

Manufacturing Leadership - as of February 1 ,2009, the three categories that currently show "IP" (in progress) – "Data Collection", Report shows data …", and "Assessment plan fully implemented" – should remain "IP." As of March 31, 2009, "Data Collection" should be changed to "C" (complete). As of July 31, 2009, the remaining two categories should be changed to "C" as we generate a report and finalize implementation for continuous review.

Microsystems – The Microsystems PhD program has recently completed a program assessment that compares attributes of RIT's Microsystems PhD program with leading Phd programs across the country. The analysis suggests RIT should stay the course and continue to implement the agreed upon staffing plan.

Challenges and Strengths

The ABET-EAC assessment process provides the foundation upon which all KGCOE assessment processes, both graduate and undergraduate, are built upon. The ABET-EAC assessment process assures that we meet all assessment criteria from definition of educational objectives to continuous improvement requirements. The KGCOE recognizes the ABET guidelines and process as a significant strength. However, challenges arise from the implementation of both ABET and Middle States requirements. At first glance one might conclude that meeting both ABET and Middle States

requirements would present no additional challenges since in many ways they are one in the same. Challenges arise from implementation issues such as multiple reporting periods/cycles, the inclusion of graduate programs, and timing and frequency issues relative to producing documentation/reports. As noted by Middle States in their most recent report to RIT (April 10th, 2007), the RIT task force, "has provided leadership and guidance, but the actual work is expected to be conducted and reported at the departmental level. Such a strategy places huge demands on departments, and this load is not evenly distributed across colleges and departments. The inevitable result is tremendous variability in assessment quality and engagement." KGCOE has implemented the ABET assessment process at the graduate level and has made significant progress in the last two years in assessing each graduate program. However, the assessment task is normally at the departmental level and simply magnifies the problem identified by Middle States. KGCOE available resources at the college/departmental level make it difficult to sustain the assessment and reporting process both at the graduate and undergraduate level.

The Middle States team in their report to the institution (April 10, 2007) noted, " with RIT and acknowledged the importance of making "consideration of ethics, values, and diversity more prominent in communication about and within general education courses". KGCOE believes three initiatives within the Kate Gleason College of Engineering (KGCOE) will compliment the Institutes efforts relative to diversity and ethics.

Women in Engineering Program

The Women in Engineering (WE@RIT) was founded within RIT's Kate Gleason College of Engineering, the only engineering college in the country named for a woman, to recruit and retain women in engineering disciplines, to promoting enthusiasm and understanding of engineering concepts among elementary and secondary students and educators.

The program focuses on comprehensive college and pre-college outreach, recruitment, and community building initiatives — offering numerous training sessions, on campus events and camps throughout the year. Presently, the program reaches over 2,300 engineering students, K-12 students, and educators.

The program has continued to grow in scope and numbers. For example, the freshman engineering female enrollment grew from 50 in fall of 2007 to101 in the fall of 2008. We believe a portion of this growth can be attributed to the WE@RIT programs.

New Programs of Study

The KGCOE has developed a new chemical engineering program and is in the process of developing a new biomedical engineering program. Both chemical engineering and biomedical engineering, at the national level, enroll a high percentage of female students. We expect these new programs to increase the percentage of woman in KGCOE.

Ethics

The KGCOE is in the process of implementing an engineering ethics program across all engineering curriculum across all year levels. The goal of the program is to

integrate academic and business ethics into the program of study for all engineering students.

The assessment of these three initiatives is incomplete but in progress. Preliminary analysis suggests these initiatives are making ethics and diversity (male/female) more prominent in the KGCOE programs of study.

For each program indicate the status of outcomes assessment implementation in the table below

C = Complete P = In progress M = Missing

Progam Summary Table
<Kate Gleason College of Engineering >

Program Name	Program Outcomes Defined	Methods Assessment Identified	Course Outlines have learning outcomes	Data Collection	Report shows decisions & results	Assessment plan fully implemented with continuous review	Comments (Recent Progress - 2008 See Department Executive Summary for Details
Undergraduate							
Biomedical Engineering	C	C	C	IP	IP	IP	New program not yet approved by state
Chemical Engineering	C	C	C	IP	IP	IP	New program approved by the State
Computer Engineering (BS)	C	C	C	C	C	C	Periodic Review of PEO and PO accomplished. Multiple examples of program enhancements.
Electrical Engineering (BS)	C	C	C	C	C	C	Periodic review of PEO & PO accomplished . Program improvements implemented
Industrial Engineering (BS)	C	C	C	C	C	C	Sustainable Assessment Plan Implemented
Mechanical Engineering (BS)	C	C	C	C	C	C	Revised Sustainable Assessment Plan Implemented
Microelectronic Engineering (BS)	C	C	C	C	C	C	
Graduate							
Computer Engineering (MS)	C	C	C	IP	IP	IP	
Electrical Engineering (MS)	C	C	C	IP	IP	IP	Periodic review of PEO & PO accomplished
Industrial Engineering (MS)	C	C	C	C	C	IP	
Industrial Engineering (ME Degrees)							
Engineering Management	C	C	C	C	C	IP	
Industrial Engineering	C	C	C	C	C	IP	
System Engineering	C	C	C	C	C	IP	
Mechanical Engineering (MS)	C	C	C	C	IP	IP	Assessment Plan Revised & Defined. Data collection well underway. No trend analysis
Mechanical Engineering (ME)	C	C	C	C	IP	IP	Assessment Plan Revised & Defined. Data collection well underway. No trend analysis
Microelectronic Engineering (MS)	C	C	C	IP	IP	IP	

Microelectronic Manufacturing Engr. (ME)	C	C	C	IP	IP	IP	
Applied Statistics (MS)	C	C	C	C	C	IP	Revisions to curriculum made. On line survey being implemented as replacement for mailed survey.
Manufacturing Leadership (MS)	C	C	C	IP	IP	IP	Assessment Plan Finalized, Initial Data Collection, Some Preliminary Analysis
Product Development (MS)	C	C	C	IP	IP	IP	Assessment Plan Finalized, Initial Data Collection, Some Preliminary Analysis
Microsystems Engineering (PhD)	C	C	C	C	C	C	PhD program has defined standard attributes and compared RIT's program to the top ranked programs in the crountry

Program Assessment

Executive Summary
College of Science

February 23, 2009

Overview

The College of Science has 15 BS degree programs, 8 MS degree programs, and three PhD programs delivered and administered by six academic departments. These programs are listed in the summary table at the end of this document, which also details the individual status of each program's assessment activities.

The only programs that have external accrediting agencies are the two BS programs in Medical Sciences, and the Chemistry ACS program. All other programs are now in the second or third cycle of annual assessment of learning outcomes. One program, Astrophysical Sciences and Technology, just started this fall and is reporting only an assessment plan at this time, since the first class has not yet finished its first year of study.

Closing the Loop

The continuous improvement part of the assessment process varies from program to program, but typically involves recommendations based on analysis of the data that are made to such groups as department curriculum committees or program committees. These groups are then responsible for addressing the recommendations and taking appropriate actions. A summary of actions by department is included later in this document.

Issues and Concerns

In the last report the main concerns were around two issues, namely, institute-level support and leadership in the assessment process, including ongoing training, and additional resources, particularly for data collection and storage. Since that time (2007), considerable progress has been made on the first item. With the hiring of a Director of Student Learning Outcomes Assessment (DSLOA) this winter, the institute has provided a resource to the colleges and faculty that will help to maintain the annual process and train faculty who are

responsible for the assessment design, metrics, and analysis. As the office of the Director develops, we are expecting to see additional resources and perhaps centralized support for data collection, storage, and analysis.

Challenges and Strengths

As indicated in the chart at the end of this document, the college is getting closer to having 100% of its course outlines in the new format that includes learning outcomes and assessment methods. The only department that is lagging is Biological Sciences, but they are in the midst of a concerted effort to finish their revisions. We reported earlier that all of our departments have strong curriculum committees that revise courses and programs based on assessing their effectiveness in preparing students for work or further study in ever-changing scientific and technical fields. The College of Science Curriculum Committee gathers the departmental wisdom and insures consistency and continuity in curriculum development. External advisory committees bring the perspective of industry and other universities and guide faculty in improving their curricula, and this process has continued, with additional programs forming advisory groups. With these long standing strengths, the challenges of formalizing and documenting what we do for program and course assessment can be met, given the support and resources commensurate with the task and the realization that it is a long and ongoing process.

Future Assessment Plans for the College

Besides maintaining an annual process for each degree program, the biggest need is for additional training. There is turnover in the committees which deal with assessment issues,

and turnover of the faculty. We expect to take advantage of the DLSOA to provide opportunities for faculty to develop their knowledge and skills. With heightened awareness at the institute level, we are hopeful that the culture of assessment will continue to grow. We plan to take advantage of any centralized data collection and storage that may be made available next year.

Department Assessment Report Summaries

Biological Sciences

The main recommendations for action are increasing the variety of upper-level elective courses, growing the faculty to meet the rising student enrollment, and increasing support for faculty research projects that will give students opportunities for undergraduate research and independent study. A few new elective courses have been developed, and the department will continue to advocate for additional faculty and laboratory resources.

Chemistry

The department continues to meet the requirements of an American Chemical Society certified degree. Their report does not indicate any particular action this year based on assessment. They continue in the revised curriculum that was described in their last report. Their main need is for additional resources to support the upcoming degree in Chemical Engineering that will be offered in the College of Engineering.

Mathematical Sciences

The School continues to do extensive assessment of its program learning outcomes and has concluded that they are meeting their objectives. They have plans to investigate the use of a group page on a social networking website to stay in touch with their students and graduates, and to make refinements to their assessment procedures.

Medical Sciences

The programs in Medical Sciences have strong external accreditation requirements, and they consequently have extensive assessment processes and detailed annual reports and analyses of student learning outcomes. Graduates of Diagnostic Medical Sonography consistently score above the national average on standardized tests. The Physician Assistant program has a 94% graduation rate and attracts high-quality applicants. Because of the national trends, the faculty have just proposed a BS/MS degree, which they plan to have approved in time for a startup next fall.

Imaging Science

Analysis of their assessment data has led the Chester F. Carlson Center for Imaging Science to propose improvements to the research aspect of the undergraduate program. They have now introduced a First-Year Research Seminar, and are revising procedures in their senior capstone projects. Additionally, they saw some topical redundancies in the courses, and have addressed this with curriculum changes that started this past fall. For the future they plan to obtain more information from alumni about the adequacy of their preparation.

Physics

The department is in the second year of implementing a senior capstone project. Based on assessment of the first year, changes were made to streamline the procedures and increase the faculty involvement to offer more choices for the students. Data from this year will help with assessing how to make further improvements, and alumni data will help with determining the effectiveness of the whole project.

College of Science Degree Program Assessment	
BS Programs	2009 Report Status*
Biology	C
Biotechnology	C
Bioinformatics	C
Biomedical Sciences †	P
Environmental Science	C
Chemistry	C
Polymer Chemistry	C
Biochemistry	C
Applied Mathematics	C
Computational Mathematics	C
Applied Statistics	C
Physics	C
Diagnostic Medical Sonography	C
Physician Assistant	C
Imaging Science	C
MS Programs	
Bioinformatics	C
Environmental Science	C
Chemistry	C
Applied and Computational Mathematics §	C
Clinical Chemistry	C
Imaging Science	C
Color Science	C
Ph D Programs	
Astrophysical Science and Technology☼	PO
Color Science†	C
Imaging Science	C

* Report Status: C = completed P = preliminary (plan and some data) PO = plan only
† Indicates new program since last assessment report
☼ Indicates new program this academic year
§ Program name change since last report

Status of Revisions of Courses to New Outline Format, February 2009

College of Science Assessment Information
Course Outlines with Learning Outcomes
Summary by Department or Program

	Revised to New Format	*Total Active Courses*	*% Completed (2007 %)*
Biological Sciences	71	101	70 (63)
Chemistry	80	82	98 (97)
Mathematics and Statistics	134	134	100 (100)
Physics	69	69	100 (100)
Medical Sciences	59	59	100 (100)
Imaging Science	30	32	94 (63)
Astrophysical S and T	21	21	100
Overall	**464**	**498**	**93 (91)**

Thomas Golisano College of Computing and Information Sciences (GCCIS)

GCCIS Assessment Executive Summary

Michael Yacci
Information Technology Department

College Assessment Issues, Challenges, and Strengths

The Golisano College of Computing and Information Sciences (GCCIS) is the newest of RIT's colleges, less than a decade old. Currently within GCCIS there are 18 degree programs; all program assessments are handled by the individual programs. Several programs are ABET accredited.

College Issues: GCCIS has undergone a rapid expansion of programs at every level, from BS to MS to PhD programs. This rapid growth has meant that newer programs were forced to put most of their energies into developing and teaching courses, acquiring resources, and handling the influx of new students into these emerging programs. All GCCIS programs have been successful in attracting new students to RIT. However, this growth has produced uneven assessment activities across the college, with the more mature programs generally displaying more mature assessment processes.

In such a dynamic environment, different assessment terminology has evolved in each program. The lack of standardized assessment vocabulary has created confusing and multiple usage of terms such as *program goals*, *program objectives*, *program outcomes*, *program educational objectives*, and *course outcomes*. This is partially due to ABET's non-standard use of these terms. Because some programs are ABET accredited, these programs are locked into ABET's use of the terms. Unfortunately, other programs sometimes misunderstand these terms creating confusion with assessment plans and activities.

Without exception, the ABET accredited programs are systematic and well organized, displaying a maturity in understanding the assessment process. Most of the other programs in GCCIS are following the general ABET approach although some programs do not appear understand the process as well as others. It is difficult to tell if newer programs do not have the time to complete assessment activities or if they simply do not understand program assessment. The faculty are often confused with the differences between assessing program outcomes as opposed to course outcomes.

College Strengths: As noted, ABET accredited programs are strong, orderly, with regular collection activities. This approach has been distributed across many other programs that are not ABET accredited, but use a similar approach. GCCIS faculty genuinely care about students, and display great and untiring willingness to work on courses, goals, objectives, and curricular processes with advisory boards, and student groups.

College Challenges: There is a general lack of coordination and skill across the college; each program is somewhat isolated and has had to evolve its own process. While there is nothing wrong with innovative and creative approaches to assessment, some of these programs miss fundamental assessment concepts that could shed light on their assessment efforts and reduce the amount of work and redundancy. While there is assessment and accreditation experience in the college, it is not utilized in a systematic manner. There is no regular review of assessment activities to help less mature programs stay on target.

College Initiatives: There are currently no college-level assessment initiatives. An electronic document repository that could be used for assessment has been discussed. The college has long terms plans to begin to provide services at the college level over the next five years.

Closing the loop: As described in the following summaries, it should be noted that every program has made progress in conducting assessment activities. While not every program has a model assessment process, *all programs have made significant steps forward since 2007*. A sincere effort has been put forth across the college to move every assessment process forward and the general faculty sensitivity to assessment is raised. Those programs that were exemplary are still exemplary; however, programs that had little happening in 2007 have all made efforts to take the next steps in defining goals, measuring student learning in a valid way, analyzing these results, and changing curricula as necessary.

Individual Program Assessment Summaries

BS Applied Networking & Systems Administration

Issues: The program follows a somewhat systematic process although the documentation details are weak. The program is two years into the process. There is occasional confusion as to whether the program objectives or the courses themselves are assessed.

Strengths: The responsibility for assessment seems to be distributed across many faculty members. It appears as though faculty have regular curricular discussions and have implemented many decisions about changing the curriculum.

Challenges: Many of the methodological details of the assessment process are vague. It would strengthen the process to identify instruments (assignments, projects, exams, etc.) that could be examined for validity and congruence to program objectives.

BS Computer Science

Issues: The BS in Computer Science has a mature and systematic process that has led to several successful ABET accreditation reviews. Revised program outcomes in the past year means minor updates to the assessment process will be necessary.

Successes: The assessment process identifies data from witness courses that maps to the program outcomes. This means that carefully targeted data, projects, and student work

that are normally gathered in the instructional process are used for assessment purposes. Additionally, co-op surveys and exit interviews are used for corroborative evidence. Data are analyzed and reported to the faculty for discussion and improvements. Thoughtful and serious recommendations are based directly upon the collected data and analysis. Any program changes would appear to be related directly to these recommendations.

Challenges: Although recommendations and discussion of changes are proposed, program changes are not recorded and mapped to the data. Beyond this level of record keeping, there are few improvements that could be made to the process.

BS Game Design and Development

Issues: The program is young and displays effort towards assessment. Faculty appear to be genuinely interested in course improvement although there is little data used to support curricular changes. Given the need for inter-disciplinary cooperation, the assessment plan displays needless complications with confusion across terminology of goals, objectives, and outcomes. (This is noted as a college-wide issue, although more critical to this type of program.)

Strengths: The program accounts for multiple assessments (such resources and student satisfaction) beyond student learning outcomes. A systematic effort to get input from the Industrial Advisory Board is positive, although generally qualitative. The plan shows sensitivity to course improvement and course consistency across multiple instructors. Initial efforts to gather data show promise for a data-driven process. Responsibility for courses and assessment activities is planned.

Challenges: The plan offers little in the way of measuring student learning outcomes at the program level, as efforts to date are focused on course improvement rather than program assessment based on student learning. The assessment plan lacks methodological details. Curricular changes that were made are not supported with data. Following through with such a complex plan will require faculty buy-in, which suggests conceptual clarification of the plan would help.

BS Information Security and Forensics

Issues: The program is relatively new and has adopted a systematic structure for assessment, but lacks the details of methods and instruments. The program has not yet completed data gathering and analysis.

Strengths: The structure of the process is based on BS ANSA. This is a systematic structure that was implementable by the ANSA degree. It is likely that it will work also for ISF once the details of the assessment process are enumerated.

Challenges: Because the program is new, it is not clear to what degree the process will actually be supported. There is no current data and the plan for gathering data is not clearly laid out.

BS Information Technology

Issues: The program is ABET accredited. BSIT has ten detailed program objectives and will need to increase its "cycle speed" to gather data for every program objective over the six year period. Data collection efforts to date are credible examples of measuring program objectives.

Strengths: Several objectives have closed the loop, having been assessed more than once. In these cases, there are improvements to instruments, methods, and courses. Curricular changes (such as those in 4002-360) are directly related to assessment results; these changes are in turn monitored and re-measured. Program goals have been successfully measured with an excellent alumni survey that addresses program long-term goals. Faculty have created credible measurements, some that are separately administered apart from course assignments. A variety of BSIT faculty have participated in the assessment effort.

Challenges: Follow through of data collection as planned for all program objectives is essential. Methodological details in the plan are uneven. Details for some objectives are less clear than others.

BS Medical Informatics

Issues: The Medical Informatics degree spent much of the past year modifying and clarifying its program goals and objectives. While there has been discussion of developing an associated assessment plan, this is unfinished at this point.

BS New Media Interactive Design

Issues: The New Media Interactive Design program is currently undergoing revisions. The field changes quickly. Recently established program objectives have not been accepted and the program is trying to establish another set of goals and objectives. In the meantime, the program bases its decisions on loose qualitative data gathered in informal settings and course evaluations.

Strengths: The faculty are eager to change the curriculum to stay current with the rapidly emerging subject matter of new media. Many sources of qualitative data are used to guide these changes. Advisory board input has been helpful in providing guidance and is supportive of new curricular directions. An assessment plan exists, but will have to be revised as it will no longer conform to new program goals and objectives when they are established.

Challenges: The program changes faster than its documentation can support. Plans and objectives are barely established before they are modified. No hard student learning data

is used in decision making, which makes decisions seem somewhat arbitrary and undocumented.

BS Software Engineering

Issues: The BS in Software Engineering has a mature, systematic process on a three-year cycle that uses targeted course outputs as assessment data. BS SE has been twice accredited by ABET. Because the field is changing, BS SE has suggested changes to its program objectives, to make them more concise.

Successes: The program has a systematic assessment process that has been through all phases of assessment several times. The targeted course outputs create an efficient process of data collection through witness courses. Multiple measures (often from several courses) are used to assess the attainment of objectives. Faculty recommendations are honest and based on data, suggesting that program improvement decisions are based on the data gathered. The assessment process seems to be a part of the culture of software engineering.

Challenges: The embedded nature of the assessment means that detailed plans need to be adjusted as goals and objectives are modified.

MS Computer Science

Issues: The MS in Computer Science is a mature program with two years of an assessment plan complete. The program assessment process basically follows the ABET model established by the undergraduate program even though MS degree is not accredited by ABET.

Successes: A solid assessment process is in place with established program educational outcomes and program objectives. Projects and exams are identified from witness course as appropriate measures of the program outcomes. Data are systematically collected and analyzed. The program faculty provide honest and thoughtful insights into the data and make solid recommendations for program improvement.

Challenges: Program educational outcomes and objectives require some degree of revision. Faculty recommendations suggest eliminating or modifying program outcomes. The actual changes to the program should also be documented to ensure that the changes are related to the recommendations and supported by data.

MS Computer Security and Information Assurance

Issues: The program is new and has had a change in supervision in its short existence, from existing at the GCCIS level to now being supervised and managed by the NSSA department. Assessment is limited at this point.

Strengths: Program goals and objectives are clearly stated. The start of an assessment plan maps the objectives to courses that could be used as potential data sources. Industrial advisory board exists and has been consulted for help and advice. Innovative new seminars have been devised to provide new programatic opportunities for students.

Challenges: The assessment plan is not concrete enough to be implemented; course completion is generally not sufficient criteria for assessment; valid assignments that correspond to program objectives could be enumerated. No student learning outcomes assessment data has been gathered.

MS Game Design and Development

Issues: The program is in its second year and has done well in that time to address formative evaluation of courses. A plan for assessing student learning outcomes at the program level is begun, although methods, courses, and instruments are not identified. No student learning outcomes are measured at this time.

Strengths: Faculty show enthusiasm for course improvement, and are honest and open to changing courses. The advisory board provides qualitative review of program goals and resources. Faculty use innovative forms of evaluation (such as "rounds") as a means of connecting with students; student satisfaction is measured often.

Challenges: The assessment plan does not contain detail on instruments or methods. Program outcomes are not explicitly addressed; evaluation of course-level objectives seems to substitute for program assessment. Although the faculty are implementing changes, there is currently little data beyond course evaluations to support these changes and no plan to gather credible learning outcome results.

MS Human Computer Interaction

Issues: The MS Human Computer Interaction began in Fall, 2008. It has clear goals and objectives. There is no concrete assessment plan at this point.

MS Information Technology

Issues: Curriculum has been under revision for several years, without making much progress; this has slowed the assessment process. Considerable effort has been extended to refocus the degree and to gain faculty consensus around modified program objectives.

Strengths: The faculty have begun the curricular improvement process with a set of strategic goals that were used to guide the creation of new program objectives. A general plan is in place regarding assessment of these new objectives. Re-use of existing assessment instruments is promising.

Challenges: No details to the assessment plan are yet evident. The fairly broad program objectives will require additional specificity to enable assessment. No student learning data currently exists. Guidance from the advisory board would support the validity of new program objectives.

MS Learning and Knowledge Management Systems

Issues: The MS LKMS degree is a new program with clear goals and objectives. The assessment plan exists and some student learning outcome data has been collected.

Strengths: The goals and objectives are stated with a fine degree of precision. An assessment plan exists that accounts for all objectives. Data have been gathered for two of four program objectives. Data are fed back into the program although no changes to the curriculum have been forthcoming from the assessment.

Challenges: The program is entirely online so opportunities for observation and loose qualitative evaluation are limited. The program must be systematic in gathering and examining data for decision making.

MS Networking and Systems Administration

Issues: The MS NSSA Program is a new program with an emerging assessment process. Methods and instruments are not fully defined, and a complete plan does not yet exist.

Strengths: Program goals and objectives are clear. Some general methods are described. The faculty members are sensitive to the need for assessment and have been willing to modify the curriculum.

Challenges: Detailed assessment plans over a several year period need to be developed. Assessment methods and instruments should be identified for each objective.

MS Software Development and Management

Issues: The program is an established program that has recently re-examined its goals and objectives. Along with newly clarified goals and objectives the program has a straightforward plan that is partially implemented.

Strengths: Faculty consensus around program goals and objectives leads to straightforward assessment activities. The teamwork objective was assessed with an instrument that was based on existing teamwork research. The instrument was revised and carefully reviewed. A plan is in place for assessing all objectives. High levels of faculty cooperation exist in developing goals and plans.

Challenges: Details of some assessments need to be fleshed out by faculty as the next phases are implemented.

MS Software Engineering

Issues: The program is still young and has only one graduating class. Program changes and recommendations are not all made based on data; although the decisions may be sound, it is not clear where the decision making is centered.

Successes: The program has clear goals and objectives and the structure for a good data collection plan. Not all details are articulated in the report, and likely some of the assessment methods will emerge as the program completes the assessment activities. Current faculty recommendations, although not based on solid data, show that the faculty are interested in program improvement and willing to make changes as needed.

Challenges: As the program matures, follow-through on the assessment plan will make running the program more complex. Documenting the decision-making process will increase transparency of the process.

PhD Computing and Information Sciences

Issues: The PhD program is a young program in its third year. Because of the high-level and open-ended requirements for this (and most) PhD programs, assessing the goals and objectives are done at a few high stakes assessment points with formal assessment instruments and methods. Despite the youth of the program, it shows a mature assessment process that has completed several cycles – resulting in curriculum and assessment methodology improvement -- in the past three years.

Strengths: The PhD program has program goals and objectives that are clear and measurable. The PhD faculty has been willing to make difficult decisions regarding student progress. They have conducted several cycles of program improvement on the assessment instruments and methods; this assessment has led to major changes to the curriculum, which was revised and re-approved by the New York State in summer 2008. All recommended changes have been based on actual assessment results. A solid plan exists for measuring student learning and continually improving the process.

Challenges: There are only a few high stakes assessment points in the assessment process. Program assessment activities could take place at more diagnostic points to provide better curriculum improvement data.

Percentage of Courses with Measurable Objectives

Program	March 1, 2007	March 1, 2009
BS Applied Networking & Systems Admin.	95%	100%
BS Computer Science	95%	95%
BS Game Design and Development	100%	100%
BS Information Security and Forensics	**	100%
BS Information Technology	100%	100%

BS Medical Informatics	100%	100%
BS New Media Interactive Development	100%	100%
BS Software Engineering	100%	100%
MS Computer Science	90%	95%
MS Computer Security &Information Assurance	90%	100%
MS Game Design and Development	100%	100%
MS Human Computer Interaction	**	100%
MS Information Technology	90%	95%
MS Learning & Knowledge Management Sys.	91%	100%
MS Networking & Systems Administration	100%	100%
MS Software Development & Management	90%	100%
MS Software Engineering	100%	100%
PhD Computing and Information Sciences	100%	100%

** program had not begun in 2007

Summary of Assessment Data By Program

Golisano College of Computing and Information Sciences (GCCIS)

Program Name	Program Outcomes Defined	Assessment Methods Identified	Course Outlines have learning outcomes	Data collection	Report shows data, results, analysis	Plan fully implemented with continuous review
BS Applied Networking & Systems Admin.	C	IP	C	IP	IP	IP
BS Computer Science	C	C	C	C	C	C
BS Game Design and Development	C	IP	C	IP	IP	M
BS Information Security and Forensics	C	IP	C	IP	IP	IP
BS Information Technology	C	C	C	C	C	C
BS Medical Informatics	C	M	C	M	M	M
BS New Media Interactive Development	IP	IP	C	IP	M	M
BS Software Engineering	C	C	C	C	C	C
MS Computer Science	C	C	C	C	C	C
MS Computer Security &Information Assurance	C	IP	C	M	M	M
MS Game Design and Development	C	IP	C	M	M	M

MS Human Computer Interaction	C	M	C	M	M	M
MS Information Technology	C	IP	C	M	M	M
MS Learning & Knowledge Management	C	C	C	C	C	IP
MS Networking & Systems Administration	C	IP	C	M	M	M
MS Software Development & Management	C	IP	C	IP	IP	IP
MS Software Engineering	C	C	C	M	M	M
PhD Computing and Information Sciences	C	C	C	C	C	C

C = Complete IP = In Progress M = Missing

College of Applied Science and Technology

Learning Outcomes Assessment Report

March, 2009

Table of Contents

Introduction 226

CAST Facts 226

Enrollment 227
Academic Outcomes Assessment History 227

Discussion 228
Future Directions 232
Program Assessment Summary 232
Appendix A—Department of Electrical, Computer, and Telecommunications Engineering

Technology 239

Electrical Engineering Technology: 240
Computer Engineering Technology: 241
Telecommunications Engineering Technology: 242
Appendix B—Department of Hospitality and Service Management 243

Program in Human Resource Development 243
Graduate Programs in Hospitality-Tourism Management and in Service Leadership and Innovation 247
Undergraduate Programs – Hospitality and Service Management and Nutrition Management 255
Appendix C—Department of Mechanical and Manufacturing Engineering

Technology/Packaging Science 259

Electrical Mechanical Engineering Technology 263
Manufacturing Engineering Technology 268
Mechanical Engineering Technology 276
Packaging Science (Undergraduate) 286
Packaging Science (Graduate Program) 293
Manufacturing and Mechanical Systems Integration (Graduate) 301
Appendix D—Center for Multidisciplinary Studies 307

Applied Arts and Sciences (Undergraduate) 309
Professional Studies (Graduate) 313
Appendix E—Department of Civil Engineering Technology/Environmental

Management/Safety 317

Civil Engineering Technology 317
Environmental Management and Technology 319
Safety Technology 321
Environmental Health and Safety Management (Graduate Program) 323
Facility Management MS Degree 324

College of Applied Science and Technology (CAST)

Academic Outcomes Assessment Report

March, 2009

Executive Summary
Submitted by Linda A. Tolan, Senior Associate Dean

Introduction

This Executive Summary provides summary information about the College of Applied Science and Technology outcomes assessment from the 2006/2007 school year through winter 2008-2009. These assessments are intended to update the 2007 assessment which occurred in March 2007.

Complimenting this executive summary is an electronic documentation file that contains the full report from each program. This file is available through the RIT Student Learning Outcomes Assessment Committee (SLOAC) or by contacting the CAST Dean's office directly. The next CAST assessment reporting cycle occurs at the end of the 2009/2010 school year.

CAST Facts

Divided into 5 academic departments, the college has approximately 65 faculty, and 40 staff on the RIT campus. CAST is a diverse college that includes a variety of curricula: ABET accredited engineering technology, multi-disciplinary studies, hospitality and service management, nutrition management (professionally accredited), health systems, environmental management, and safety technology. The curriculum portfolio includes master of science, bachelor of science, associate, diploma, and certificate (graduate and undergraduate) programs. The student population and program

delivery types reflect this programmatic diversity. While many students pursue their studies in traditional, fulltime programs, many are also, part-time, international (on-campus, online and site-based), and fully online. CAST has embraced online learning and non-traditional delivery to meet the learning challenges and opportunities of these different groups. The college has strong relationships with the program-related industries and these connections both inform and keep curricula current, and position CAST to partner in workforce learning initiatives nationally and internationally.

CAST also delivers courses at the American College of Management and Technology (ACMT) located in Dubrovnik, Croatia and the American University of Kosovo (AUK). The programs offered at these locations are the same as those offered on the RIT campus and adhere to the same program educational outcomes, course intended learning outcomes plans, data collection, reporting and analysis.

Enrollment

The following summary details the Fall 2008 CAST enrollment (headcount) with ACMT and AUK included.

CAST (w/ACMT and AUK):
25% of RIT's enrollment
12% Graduate; **88 %** Undergraduate
23% of CAST is international program offerings (ACMT, AUK, DR)
31% of CAST (w/ACMT and AUK) is Engineering Technology
69% of CAST is programs other than Engineering Technology

Academic Outcomes Assessment History

CAST is actively involved in outcomes assessment. As a college, CAST began to implement assessment with our ABET accredited engineering technology programs in 2001/2002 school year. ABET accrediting visits will take place again in Fall 2010. All CAST programs have benefited from the ABET activities. The ABET programs have

shared their approaches and CAST has learned from and applied these assessment principles and practices to all its programs.

CAST pursued an aggressive timeline to implement learning assessment and requires full yearly reports from all the departments and programs. These reports are reviewed in the Dean's office and used to address issues that affect students across the programs. Summaries of the 2008/2009 reports are included with this executive summary. The full individual program analysis and assessment are available electronically on the college intranet, or may be requested from the CAST dean's office.

Discussion

CAST has continued to align the ABET process with the MSCHE to implemented effective outcomes assessment. Non-ABET graduate and undergraduate degree programs have built on their first 2005 round of assessment by improving their assessment methodologies, refining the processes, and applying improvements to both the programs and their assessment methodology. It has continued to be a learning process for all the participants – faculty and administration. CAST holds a core philosophy that assessment must engage everyone and must be driven by the program and department faculty. Although the Senior Associate Dean has responsibility for college outcomes assessment, assessment engages and requires participation from all faculty and constituent groups.

The college has now been through several rounds of reporting, worked hard to create a learning assessment culture that engages all faculty in the assessment process, and is now progressing through the assessment learning curve. The faculty and programs have now reached a point where 'closing the loop' is a natural part of the process. In this

round of reporting programs were asked to clearly show that they are evaluating the changes made as a result of earlier data findings and analysis. Details are found in the full program reports.

The college continues to address issues such as data reporting and collection, simplifying approaches while maintaining substance and depth, increased coordination within departments across all their programs, assessment collaboration for courses outside the department and, linking course and program outcomes evaluation more effectively. The assessment of broader skill sets and learning—such as effective team work, ethics, global perspectives, critical thinking and similar areas—continues to be challenging. This will require increased collaboration with other RIT departments, triangulation approaches, and curriculum modifications.

The importance of assessment is clearly articulated and emphasized by RIT's new president, provost, interim associate provost and new CAST dean Dr. H. Fred Walker. Since the last round of assessment RIT has added more expertise to the Office of Institutional Research, is providing better and consistent data reports for all the colleges, has recently hired a new Director of Assessment and is creating a data warehouse. As RIT provides more information and coordination, our college task for the upcoming year is to examine all college-based data gathering and reporting and determine what is effective and possible given existing and decreasing college resources, eliminate redundancy with newly available institute reports, streamline our processes and, still provide quality assessment results.

The issue of incremental resources, maintenance of systems, and storage of data is a continuing problem at the college level. As indicated in the 2007report from CAST, the other RIT colleges, and the Institute Assessment Committee, outcomes assessment has been implemented mainly through reallocation of resources at the college level. This has changed somewhat, but the resource burden of assessment still remains at the college level. Some of the hidden costs of assessment to the college include faculty workload adjustments, adjunct faculty coverage, technological resources (hardware, software, and people), administrative re-assignments, and displacing of other projects and student-related activities. Colleges do not have any permanent funding streams from the institute directly related to assessment needs.

Outcomes assessment requires a strong infrastructure and appropriate use of technology. Some examples of outcomes assessment tools and practices CAST began or completed during the past 2 years in addition to the programmatic assessments are:

- CAST Curriculum Committee continued monitoring of the course outline project to include intended learning objectives and assessment into all active courses. The college has @ 100% compliance rate. Departments have reviewed all courses and discontinued all courses that have not been or intend to be offered in a reasonable time. This will ensure that course catalogs are accurate and reflect only current course offerings. All new programs, courses, and course revisions are required to submit new or revised intended learning outcomes (ILO's). The CAST Curriculum committee reviews each submittal for quality and consistency ILO's and outcomes with course/program topics, course goals, and methodology.

- The college intranet (CASTnet) is now the official repository for all CAST course master outlines.
- In summer 2008, we implemented a document management system. The purposes of the curriculum section are to streamline curriculum development, submission, and review and, electronically archive official master course outlines and approved program proposals. That system has now been in operation for one year. As with any new system the first year is a learning experience. A college team including faculty curriculum committee representatives, college scheduling officer and academic coordinator, and a primary user met in February 2009, to review practices, procedures, and simplify the submission and review process. Usage modifications are now in progress to make the system more user friendly.
- Curriculum committee minutes/forms/policies are now published on the CAST intranet and available to all in the college.
- The web-based co-op employer reporting form developed with the Office of Co-operative Education and Placement has proved to be an important element in the assessment process. In this system, employers evaluate the co-op students using a questionnaire mapped to program outcomes. Co-op students also fill out a co-op report mapped in the same manner. This system is now fully accessible by the departments.
- We continue to adjust faculty teaching assignments so they may work on assessment initiatives

- Graduating student and alumni survey distribution and data collection moved to dean's office and that survey is now administered and reported for all programs on a regular basis.
- CAST made the decision to require yearly assessment reports. The yearly reporting is required in only one or two of the RIT colleges. The required CAST yearly assessment reports have proven to be a vehicle for change and course/program improvement, has helped to embed assessment, maintain continuity, and emphasized its importance.

Future Directions

CAST has made a commitment to outcomes assessment through judicious re-allocation of college resources such as giving assessment projects priority in systems development, staff support assignments, and release time to faculty. Intangibles such as time spent in meetings and development cannot be calculated. There have been no incremental budget increases to sustain assessment activities. The continuing issues relate to collecting, archiving, and maintaining data, on-going training to faculty in best practices, improving assessment practices, new and continuing collaborations with institute units to refine RIT processes and procedures to support assessment practices, and further embedding assessment into the culture of the college.

New issues to be addressed in the next cycle include increased collaboration with other colleges to triangulate analysis about harder to asses topics, aligning CAST with new institute level practices and reporting,

Program Assessment Summary

CAST has 13 undergraduate programs and 10 graduate programs. To date, ABET accredited programs have had four rounds of outcomes assessment reporting; non- ABET programs completed their third update round with this 2009 report. All CAST programs will complete another major assessment reporting cycle in 2010. Faculty are collecting data, analyzing, and implementing assessment–based continuous improvements on a regular basis – both quarterly and yearly.

The following table details the outcome assessment status of each CAST degree program. Executive summary program reports are found in Appendices A-E. Full program reports available on request from the CAST Dean's office

CAST Outcomes Assessment Program Status						
C=COMPLETE IP=IN PROGRESS M=MISSING * ABET Accredited	Program Outcomes Identified	Methods Assessment identified	Course Outlines have Learning Outcomes	Data Collection	Report shows data decisions, results, analysis	Comments
Undergraduate						
Civil ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Electrical ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Computer ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Telecommunications ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Electrical /Mechanical ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Manufacturing ET*	C	C	100%	C	Yes	Fourth evaluation cycle - original/follow-up reporting
Mechanical ET*	C	C	100%	C	Yes	Fourth evaluation cycles - original/follow-up reporting
Safety Technology*	C	C	100%	C	Yes	Approved for ABET accrediting. Outcomes criteria mapped to ABET requirements

Packaging Science	IP	C	98%	IP	Yes	3nd assessment cycle, new chair is implementing programmatic changes, updating program outcomes, and refining assessment plan for next round.
Hospitality and Service Management	C	C	98%	C	Yes	3nd assessment cycle
Nutrition Management	C	C	100%	C	Yes	3nd assessment cycle Also, external accreditation
Environmental Management and Technology	C	C	100%	C	Yes	3nd assessment cycle
Applied Arts and Sciences	C	C	98%	C	Yes	3nd assessment cycle
GRADUATE						
Environmental Health and Safety Management	C	C	100%	C	Yes	3nd assessment cycle
Packaging Science	C	C	98%	C	Yes	3nd assessment cycle
Telecommunications Engineering Technology	C	C	100%	C	Yes	3nd assessment cycle
Hospitality-Tourism Management	C	C	100%	C	Yes	3nd assessment cycle
Service Management	C	C	100%	C	Yes	3nd assessment cycle
Human Resource Development	C	C	100%	C	Yes	3nd assessment cycle
Health Systems	C	C	100%	C	Yes	3nd assessment cycle

Administration						
Cross-Disciplinary Professional Studies	C	C	100%	C	Yes	3nd assessment cycle
Manufacturing and Mechanical Systems Integration	C	C	100%	C	Yes	3nd assessment cycle
Facilities Management	C	C	100%	C	Yes	New graduate program approved 9/2006. First assessment report completed in 2008/2009 cycle

Electrical, Computer, and Telecommunications Engineering Technology (ECTET)
CIP Executive Summary
Academic Year 2007 2008

The evaluation of the 2007-2008 Program Outcomes (PO's) and course success rate data for the continuous improvement plans for the programs in the ECTET department indicates that all three programs are performing well. Areas for suggested review for each program curriculum committee are provided in this summary.

There are two areas of analysis and review associated with the continuous improvement plan for each program: ILO (Intended Learning Outcome) assessment, and Course Success Rate. The ILO assessment is conducted via student surveys using a five-point Likert-scale. Any average value less than 3.0 is considered unacceptable and will be investigated. A Course Success rate (grade of A, B, or C) less than 70% also results in an investigation.

Due to the timing of data collection and reporting there is typically a two year a lag in the continuous improvement plan cycle from problem identification to change implementation. Therefore, the data collected during the most recent collection cycle (2007-2008) are associated with changes implemented during the 2005-2006 academic year. Data are received after summer quarter. Compilation and analysis take place during the following academic year resulting in plan implementation in the following year. We will work to identify opportunities to reduce the time associated with implementation and evaluation of improvements.

In addition to reducing the continuous improvement cycle time, three areas of concern have been identified associated with all programs related to Continuous Improvement Plan process and ILO (Intended Learning Outcome) tracking:

(1) *Course outline approval process:* The course outline approval process currently permits a course to be taught with new ILO's prior to revision of the ILO questionnaire. This results in invalid course ILO assessment data. This process must be completed at all levels prior to the associated changes being implemented. Additionally, this process will be streamlined and tracked to insure timely completion.

(2) *ILO revision and tracking:* The process for ILO revision and tracking must be improved. As ILO's for particular courses have been updated, proper tracking of ILO with respect to PO has not been maintained. A systematic approach to tracking ILO changes within a course and how these changes impact the associated PO is required. This could be as simple as not re-using ILO numbers once an ILO has been

eliminated, or perhaps developing a new numbering scheme. ILO revision also impacts the ability to perform a longitudinal analysis of the data. These issues will be addressed prior to the 2009 academic year.

(3) Online course evaluations: Courses that are offered in a distance learning format do not have an associated ILO assessment. This has been an ongoing concern that still remains to be addressed

This report is organized in two sections. The first compares the items identified as potential problems during the 2005-2006 academic year with the latest available data, thereby closing the loop. The second outlines those areas from the present data that identify potential areas that need to be addressed.

Closing the loop 2005-6 through 2007-8

Electrical Engineering Technology:
Intended Learning Outcomes:
There is one Intended Learning Outcome (ILO) assessment metric that falls outside of the prescribed limit of 3.0 in the EET program. This is ILO #6 for Program Outcome #4 which was measured in Advanced Electronics (0609-442). This was also the only ILO identified as a problem during the 2005-2006 review cycle.

As part of curriculum modification, the educational material associated with this ILO was moved from Advanced Electronics (0609-442) to Electronic Optic Devices (0609-554) a fifth-year elective. Because this material was not covered in depth in Advanced Electronics, it is understandable that the resulting evaluation would be low. This is an example of the two concerns associated with process and revision tracking. The Advanced Electronics course has been modified, but the most recent evaluation questioned the students about the old material.

Course Success Rate:
During the 2005-2006 academic year, three courses in the Electrical Engineering Technology curriculum were identified as not meeting the minimum 70% Course Success Rate. One of these courses, 0618-232 is offered out of the Computer Engineering Technology program, and therefore addressed by that curriculum committee. The other two courses, Circuit Theory II (0609-215, and 0609-404) were addressed by the EET curriculum committee.

Circuit Theory II impacts all students in Electrical, Computer, and Telecommunications Engineering Technology, and is part of a three-course sequence that students tend to struggle with. Because of historical student success, and in order to engage students earlier in the curriculum, Introduction to ExCiTe (0618-213) was developed as a first-quarter freshman course. The intent of the course is to expose students to some introductory circuit theory material, and get them more engaged in engineering by exposing them to a small autonomous robot they construct and examine throughout the quarter. During the 2007-2008 academic year the course success rate of all three circuit theory courses shows improvement over 2005-2006:

Table 1: Circuit Theory Course Success Rate Comparison:

Year	Circuit Theory I	Circuit Theory II	Circuit Theory III
2005-2006	71%	69%	77%
2007-2008	78%	72%	87%

Computer Engineering Technology:
Intended Learning Outcomes:
During the 2005-2006 Academic year, all courses offered in the Computer Engineering Technology curriculum met their Intended Learning Outcomes goals. It was determined that no action was required because of the ILO data acquired.

Course Success Rate:
Four courses required in the Computer Engineering Technology curriculum fell below the 70% minimum for Course Success Rate. Of these, three fell under the jurisdiction of the Computer Engineering Technology program:

Technical Programming II (0618-232) 62%
Embedded Systems Design I (0618-561) 64%
Embedded Systems Design II (0618-562) 68%

With respect to Technical Programming II, the curriculum committee decided to wait for more data to determine if this was an anomaly. This course success rate has improved considerably, reaching 84% in the latest (2007-2008) data.

Embedded Systems Design I and II have undergone considerable changes, as have the associated pre-requisites. It is important to understand the recent changes in the Computer Engineering Technology faculty since 2005-2006. At that time there were four full-time teaching and one full time program coordinator (PC) who taught a 1/3 reduced teaching load in the program. Since that time, one full time faculty member retired, one left RIT for industry, one passed away, one became department chair, and the program coordinator stepped down from that position to take on another assignment at the institute and is now on a part-time teaching load. Presently there is only one tenure-track faculty member in the Computer Engineering Technology program, and she came on board in September of this year. The number of students has not changed significantly in this period.

The changes that have taken place in Computer Engineering Technology have been largely carried out by a tremendously dedicated group of adjuncts. However, student support during the day for help with laboratory projects and homework has been greatly reduced.

The course success rate for Embedded Systems Design I and II has hovered around the 70% mark. The most recent data show them both at 69%. While this is less than acceptable, there have been two recent changes that should lead to more success in these courses in the future. One is that the design platform used for laboratory has changed to provide students with a more understandable foundation. The second is that Principles in Electronic Design Automation (PEDA, 0618-439) has been added as a pre-requisite. During analysis of the underperforming student profiles in Embedded Systems Design, it was noticed that many of

them had not taken, or had performed poorly in PEDA. Those that had taken and performed well in PEDA had a strong foundation in VHDL and hardware design. It is anticipated that course success will improve by incorporating these changes.

Telecommunications Engineering Technology:
Intended Learning Outcomes:
No courses in the Telecommunications Engineering Technology Program fell below the 3.0 mark for Intended learning Outcomes during the 2005-2006 survey. It was determined that no action was required at this time.

Course Success Rate:
The 2005-2006 continuous improvement plan data identify only one course, Network Planning and Design (0614-574) below the 70% success rate for acceptance. These data were based upon only six students taking the course in that particular year. Because of this, it was decided to take no action, but rather see additional data prior to making any modifications. The latest survey shows a success rate of 89%, and it has been determined that no additional action is required at this time.

2007-2008 Annual data review:

Electrical Engineering Technology:
Intended Learning Outcomes:
The only ILO that falls below the 3.0 minimum for acceptance in the Electrical Engineering Technology Program is ILO #6 for PO#4. This is the ILO associated with Advanced Electronics (0609-442). As described earlier in this document, this item is not a concern because it is no longer part of the Advanced Electronics course. The only concern here lies with the ILO modification tracking process which will be addressed prior to the 2009-2010 academic year.

There is one additional ILO that will be reviewed. Career Orientation (0609-407) supports all three programs through ILO #4. This ILO is somewhat confusing and will be reviewed prior to the next evaluation cycle. The average for ILO#4 is 3.07 in the course assessment category.

Course Success Rate:
There are five courses within the Electrical Engineering Technology domain that are below acceptable levels for Course Success Rate:

Table 2: EET Course Success Rate (CSR) concern 2007-2008:

EET Course #	0609-333	0609-360	0609-408	0609-411	0609-534
CSR (%)	65	61	54	65	67

These courses and the associated data will be evaluated by the Electrical Engineering Technology curriculum committee which will determine a plan of action.

Computer Engineering Technology:
Intended Learning Outcomes:

There are no ILO's within the Computer Engineering Technology courses that fall below the prescribed limit of 3.0. No action is recommended at this time.

Course Success Rate:
Three courses within the Computer Engineering Technology curriculum fall below the 70% satisfactory level for Course Success Rate. One of these courses, 0618-206, is a survey course that is meant for non-majors. The data indicate that several individuals typically withdraw from this course thereby reducing the success rate. It is determined that no action is required for 0618-206 at this time.

Embedded Systems Design I (0618-561) and II (0618-562) both fall below the 70% acceptable level for Course Success Rate. Two items are presently in motion to address this problem. A pre-requisite has been added to 0618-561. By requiring students to successfully take and pass Principles of Design Automation (PEDA, 0618-439), the students entering 0618-561 will be better prepared. Additionally, there is discussion about requiring students to pass 0618-561 and 0618-562 with a grade of 'C' or better before being permitted to take the next course in the sequence. If implemented, this change will being in the 2008-2009 academic year.

Telecommunications Engineering Technology:
Intended Learning Outcomes:
There is only one ILO that falls below the 3.0 acceptable limit in the Telecommunications Engineering Technology Curriculum, but two are at the 3.0 limit.

0614-483 Telecommunications Transmission Systems	ILO #1	3.0
0614-484 Telecommunications Transmission Systems Lab	ILO #1	3.0
	ILO #3	2.50

All three of these ILO's will be evaluated to determine appropriate action.

Course Success Rate:
Only one course (Fiber Optic Telecommunications Technology 0614-520) was identified to have a course success rate of less than the 70% acceptable level. This course was offered only 1 time during the year to a class of three students, only one of whom was a Telecommunications Engineering Technology major. The two non-majors received grades of 'D' in the course. It is determined that no action is required at this time based upon the data available.

Appendix B—Department of Hospitality and Service Management
Program in Human Resource Development

Executive Summary

Program Outcomes Assessment for

Human Resource Development—**Graduate Degree**

February 4, 2009

Submitted by:

Donna A. Dickson, Assistant Professor
School of Hospitality & Service Management
College of Applied Arts and Science
Rochester Institute of Technology

The graduate program in Human Resource Development (HRD) was first offered at RIT in the early 1980s and has evolved over time to reflect changes in the Human Resources (HR) field and to reflect the needs of the student population.

Participation in the program continues to be strong, with applications and enrollment growing significantly. In addition, students from disciplines other than HR frequently take individual courses in the program. We have a mix of U.S. and international students in the program, pursuing the degree on both a full-time and a part-time basis.

At this time, the faculty for the program includes:

- Two full-time faculty who teach only in the program
- One full-time faculty who teaches in the program and other courses offered by RIT at the graduate level
- A number of adjunct faculty who work in their field of expertise such as training, employment law, or human resource development

Some courses are offered in the evening and meet one night per week. Others are offered through distance learning using RIT's MyCourses platform.

Courses

Students complete 48 quarter credit hours at the graduate level. All students are required to take:

- Applied Data Analysis in Human Resource Development
- Human Resource Management I
- Internship

Students select three of the following four required courses:

- Theories of Organizational Development
- Theories of Career Development

- Theories of Human Resource Development
- Human Resource Management II

Students select HRD electives or other graduate level courses, approved by the department equivalent to 24 quarter credit hours.

Changes and Actions Taken

Program Quality

1. The department completed a comprehensive evaluation of the program with the following goals in mind:
   - Ensure all course content and course offering are up-to-date (as reflected in best practice research and professional organization competencies for HRD practitioners)
   - Communicate the *unique* attributes of our HRD degree to better differentiate our program from others offered locally, regionally, and nationally
   - Ensure we are utilizing resources effectively and avoiding redundancies across programs
   - Attract students from disciplines other than HR
   - Improve enrollment and retention
   - Revitalize the program by creating a vision and focus for faculty, students, and staff

   The research stage involved examining secondary research sources, surveying current students and alumni, evaluating similar programs locally, regionally, and nationally, and gaining the industry and business perspectives from our current adjunct staff.

   The research results were used to propose a revised curriculum, focusing on competencies of HRD Professionals in the near future. A number of new courses are already being offered as electives and the sudden growth in the program and in the size of enrollment in these new courses would indicate the changes are positive and effective. Approval of the revised curriculum proposal is pending.
2. Alumni feedback

   Alumni are routinely contacted to report on their level of success in HR positions, based on the knowledge and skills they acquired in the program
3. Department Advisory Board

   An experienced HR Practitioner was invited to join the Department Advisory Board to provide on-going assessment of and feedback about the program quality
4. Student Scholarship

The program created a unique scholarship venue for students, Cutting Edge HRD Showcase. Students were invited to submit work, which was blind reviewed by alumni, professors, and HR Practitioners from the community. Ratings, based on specific criteria, were used to select works for inclusion in the showcase. A poster session and formal presentations were made to an audience of students, alumni, professors, staff, and the general public. More than 20% of the current students submitted work and a total of 7 works were shared to an audience of nearly 60 individuals.

One student partnered with a faculty member to submit a paper to a professional conference. The paper was accepted.

One student partnered with a faculty member to submit a presentation to a professional association for webcast. The presentation was accepted.

Two students are currently working with a faculty member on a journal article.

Faculty Quality

1. Improved course evaluations, based on documented teaching competencies and best practices for graduate faculty were created and implemented
    - Faculty meet with the Program Chair each quarter to review evaluations and determine needed improvements
    - Full-time faculty seek informal input from students on instructor performance, providing another source of evaluation useful in addressing concerns throughout the quarter.
2. An adjunct faculty workshop, required for all new adjuncts, to provide support for the transition from practitioner to educator and strategies for assess student progress and performance was implemented
    - In addition, all new faculty are observed in the classroom to monitor performance and ensure quality

Graduate Programs in Hospitality-Tourism Management and in Service Leadership and Innovation

Executive Summary

Program Outcomes

For Graduate

Service Leadership & Innovation degree

and

Hospitality-Tourism Management degree

By:
James W. Jacobs, Jr., PhD
Distinguished Professor
School of Hospitality and Service Management
College of Applied Science and Technology
Rochester Institute of Technology

February, 2009

Introduction

Programs

The Hospitality-Tourism graduate degree and the Service Leadership & Innovation graduate degree share a large group of courses and are coordinated by a graduate coordinator. Both programs presently use a modest number of adjuncts and non-program faculty from sources across the campus. The two degrees are offered in the normal quarterly format on the RIT campus over a 9-month period and with time to complete the research project or thesis during or following the period of course work.

In addition, the Service Leadership & Innovation graduate degree is offered in a condensed Executive Leader (EL) format both locally at RIT (with the new online format) and internationally in a 12-18 month format depending on the international location and their specific timelines. The EL program continues to expand, currently being taught in one international location (reduce for personnel reason last year), and online at RIT. Previous international partners have asked for the program to be offered in school year 2009 (Dominican Republic, Croatia, Kosovo), and in several new locations (the NY State Capital region, Lima, Peru, and Ecuador). Currently, a Service Leadership & Innovation concentration is offered in Kosovo, and another will be started in March, 2009.

The two advising sheets attached as Attachment A & B exhibits the courses required in the programs – including core courses, professional concentrations and elective concentrations. During 2007, the Human Resource Development (HRD) faculty (at HSM Directors request) finished the development of the Human Capital Strategies course. The appropriate committees and New York State approved the course for use in HSM graduate programs. The course is now part of all HSM graduate degree programs and began to be offered in the EL format with Dominican Republic 4 (DR4); it is currently part of the normal programs, RIT Dubai, and the RIT online program.

Faculty, Course, and Support Assessment

Courses in Service Management and Hospitality and Tourism Management are offered in a classroom version, blended classroom online version, and online. A qualitative and quantitative questionnaire is used as the program's assessment device. The questionnaire is administered by RIT's Online Learning Department digitally. The repository for the questionnaires is located with the School of HSM Advising Assistants and released for review to faculty by the HSM graduate chair and coordinators.

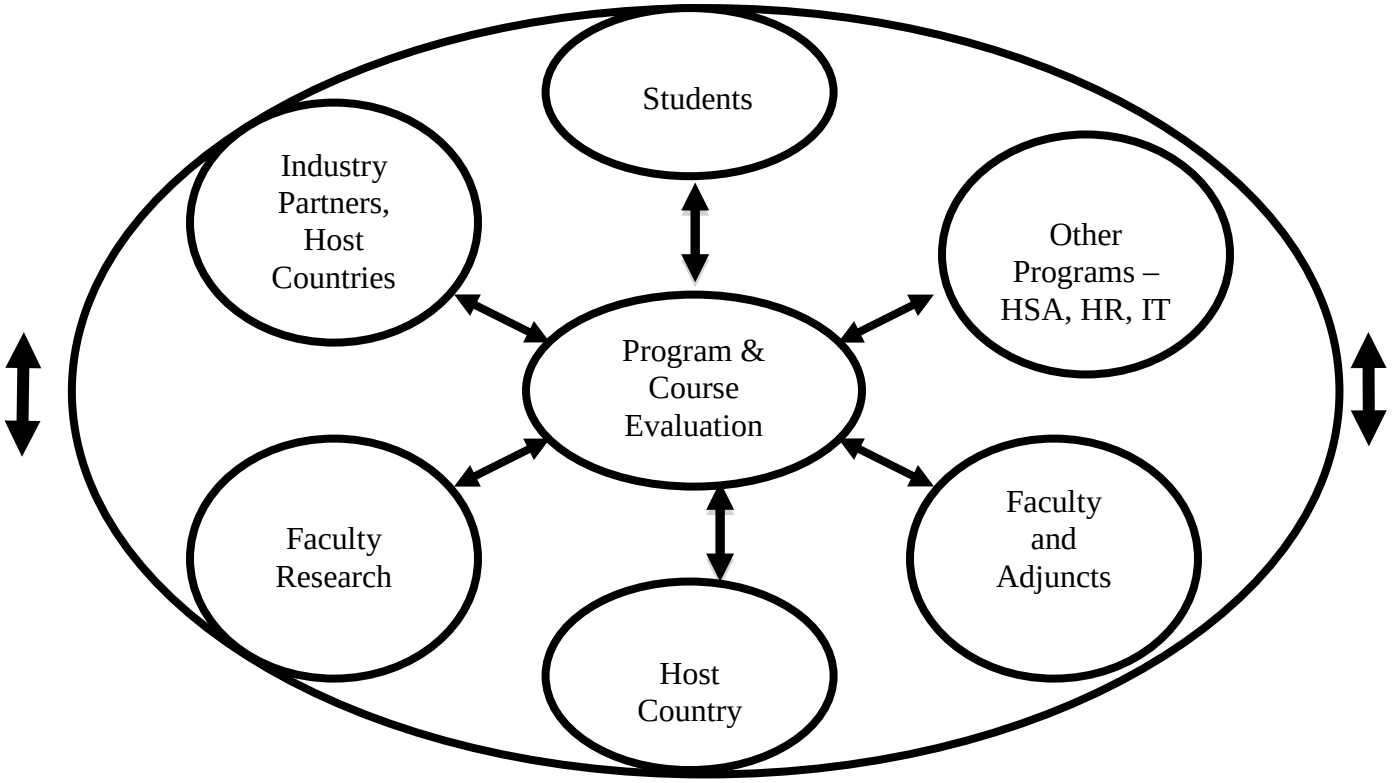
In some cases internationally, the assessment device is still a hand-administered questionnaire administered by the host country coordinators. The completed questionnaires are forwarded to the HSM Director. In the near term when connectivity can be relied upon overseas with the host countries, we'll convert fully to the online version of the questionnaire.

Host country coordinators also provide feedback specific to their own international locations. Theses reports are utilized to enhance program, course, and administrative processes and procedures.

The Assessment System and Feedback Loops

Figure 1 below demonstrates the model of the assessment system designed and utilized by the two programs. The model relies on continuous feedback between students, faculty, industry partners, faculty researchers, and other partners (associations, country hosts, etc.).

Figure 1: Graduate HSM Assessment Model



New Chart 2009

Note for the Above: The model above demonstrates the connectivity between all sources which combine to create a synergistic outcomes and assessment system for our two degree programs. All sources are monitored and assessed regularly to determine what combination of courseware is most appropriate for the two programs, to insure program outcomes are met, to evaluate the delivery of those programs and to insure outcomes are achieved that enable graduates to function effectively in their subsequent careers.

Recommendations and Actions Taken (a sample)

Courses: Courses are continuously updated with new content and materials depending on the reports received from industry partners, faculty and faculty research, other similar programs, the advisory board, and student inputs. Over the timeframe of the last several years, for example, a new elective course was added – Project Management. The new Human Capital Strategies course was added as core.

In addition, based primarily on student input, the research/project process has been revised and streamlined. In the past, students relied on the foundations course to begin their research thesis/project requirement. Depending on when they took that course, there work to complete the thesis or project would have been started to early (not enough of a foundation in content) or too late, delayed the whole process beyond acceptable completion times. As a result, the research thesis/project process begins now with their first course and is a continuous work-in-progress through the whole of their program. All students are "sheparded" through the process. This new streamlined process often results in students completing the course work and projects simultaneously (most often international students). The completion rate for 2007 was dramatically raised as a result of this streamlining. Another new change discussed later in this summary, revises how students will be registered for their research project/thesis.

Service Leadership & Innovation Executive Leader Program: This program has become highly visible in the international environment. It is largely in the US and internationally a one of a kind program (taught for 18 years now) and continues to lead the way in service system, service organization, and service environment studies. The program content is applicable to a broad series of service organizations and is "future oriented" (prepares graduates to compete and work successfully in their career future). Recently, collaboration across campus with the Golisano College was slated to result in a service concentration for IT graduate students, however, faculty in IT elected to not address the change. Other programs, Health Systems (HSA), Human Resources (HRD), and the Center for Multidisciplinary Studies (CMS) utilize Service Leadership & Innovation courses regularly. In addition, the HSA Certificate uses Service Leadership & Innovation courses. Lastly, an increasing number of programs have examined elected to use portions of the Service Leadership & Innovation program, including Product Development in engineering most recently, considering use of up to two SLI courses. A concentration from Service Leadership & Innovation

has been used in the Kosovo Public Policy graduate degree in 2008 and will continue in a new cohort this March, 2009.

Students: Today, students come a variety of disciplines and from a host of countries internationally. Since this is a graduate study program, grade results and completion GPA's are always 3.0 or higher.. Those individuals that cannot maintain the average either self select out of the program or complete significant makeup work.

Student evaluations in the two programs have always been and remain strong. This is largely due to the dedicated faculty and adjuncts who teach in the program. In general, most comments of a negative nature have involved support activities and administration (book costs, facilities (internationally), and so forth. As a result, the two programs enjoy huge volumes of "highly satisfied and competent customers."

Most pronounced positive comments from students revolve around their powerful interaction with selected faculty and adjuncts, and from the wealth of new knowledge and future oriented thinking they receive during the program. A new Community of Practice (Learning Community) will be operational in the spring of 2009 to enhance student interaction and connectivity to a host of learning sources and individuals.

Faculty and Adjuncts: Faculty and adjunct teaching in the program are selected for their capacity to teach the appropriate content and their student "centric" approaches to teaching and learning. They are as a group a powerful set of individuals as related by students in their evaluations of the courses and programs, through classroom visitations and through anecdotal comments. Mentoring the adjunct group has proven a valuable tool to keep this assortment of individuals (typically working elsewhere) on the cutting edge of teaching, learning and general development. Every course completed is debriefed and those debriefs shared with the composite of all faculty. They have responded to this coaching and mentoring exceedingly well and often collaborate with selected faculty to change content, share research. advise student research thesis and projects, and advise student progress. In the very near future, these processes will be enhanced with the addition of a Faculty Community of Practice (Learning Community) Wiki. Some of the exemplary adjunct faculty are:

Dr. Tracy Weber – CEO, Kaleidoscope Learning Community
Dr. Annette Rummel – CEO, Saginaw County Chamber of Commerce
Dr. Joe Packard – Otho-Diagnostics, Division of Johnson and Johnson
Dr. Jim Myers – Director of the Center for Multidisciplinary Studies
Dr. Dave Martin – Director of Hospitality Programs, Rierson University
Dr. Alfreda Brooks – RIT, VP of Diversity

Industry Partners: An equally effective and committed group of alumni, and other industry partners perform a host of functions to improve and monitor the program. The advisory board is briefed yearly about changes in program, program effectiveness, program needs and so forth. They are a willing and supportive group selected to enhance the student experience from afar. They have indicated their

willingness to participate and recommend further participants in the faculty and student/alumni learning communities within the program.

Equally active a group of alumni perform similar functions, the most notable being the where students interact with them about important issues, career information, and programs. Faculty often uses them additional as outside advisors for thesis and project work – generally in conjunction with an organization sponsored research project or thesis.

Program Outcomes:

The complete list and illustrations of program outcomes is at Attachment C. The chart is in the standardized College of Applied Science's format. The material discussed above in this Executive Summary provides a strong summary of actions taken over the recent past.

Closing The Loop – 2007-08

1. Continued program re-development was discussed briefly above, noting changes with the addition of Human Capital Strategies and the Project Management courses. In addition, concentrations are now allowed from both of the above programs.
2. We are still awaiting the Center Concept development in the Dominican Republic to expand that program. There is a nearly complete cohort of students awaiting the same. The issues are currently being discussed with the VP for Graduate Admissions.
3. Executive Leader site expansion did progress and open at RIT Dubai. However, due to faculty capacity, other openings were slowed. The RIT EL program began normally in the fall of 2008.
4. New faculty capacity was enhanced in the summer of 2008. Two new faculty joined the SLI and Hosp Tour programs. One fulltime (split with HRD) and on visiting professor line. Additional faculty will be considered as international and in country programs expand in 2009-10.
5. Complete streamlining of international program administration has been centralized in the RIT Global Delivery Corporation (GDC). In addition, similar administration through CMS has always been and will continue to be provided.
6. Admission activity in 2007 resulted in a huge incoming class in both SLI and Hosp-Tour programs. As mentioned earlier, the RIT Dubai and RIT EL Service Leadership and Innovation program began in the fall quarter of 2008.

Feedback and Actions 2008-09

1. Recent feedback from some students and our international administrator from RIT Dubai have led us to consider revising our Credit by Experience (CBE) processes. In a positive step, we were asked to forego CBE and instead offer courses in lieu of CBE. Students would rather have the extra three courses to broaden their studies. The RIT Dubai administrator requested similar action. While we will continue to offer CBE, the following changes to the processes will occur:
    a. A determination at program onset will acknowledge the value of CBE and additionally, acknowledge the value of receiving courses beyond the nine

required in the EL program. Each EL program will therefore be somewhat unique, some with a full CBE examination/process, some with a combination of CBE and transfer credit, and some with no CBE. Future feedback will examine these new approaches.

   b. The CBE process itself will be enhanced. Two separate processes will be tested (one in SLI and one in HRD). The main criteria will insure thorough documentation of rationale for providing CBE.

2. There are a huge variety of students who enter both the SLI and Hosp Tour programs. Some students and faculty research advisors have requested we handle the research project and thesis processes differently. The main issue has been a lack of research methods knowledge. Hence, in proposal stage now are new research project and thesis processes. These processes will become credit bearing (e.g. a two credit research methods course, a 1 credit proposal completion course, and a 1 credit research project or thesis completion course). While not through committee at this point, the above is the most likely the new sequence to replace the original 4 credit project or thesis credits.
3. Student evaluations have remained strong throughout the reporting cycle. We did identify an issue with support for NTID students in the programs. Few, if any we can recall, hearing impaired students have gone through the programs. Hence, little attention has been provided to insuring these students receive a full complement of services. This has not been a problem when students come from our own NTID system – they understand the services and procedures at RIT well. However, when students arrive from outside our own system, there needs could be overlooked. A procedure to insure our own administration catches these individual early in the admissions approval cycle has been put in place.
4. In the very near term a student, alumni, faculty, advisory board and other corporate partners will be invited to join the SLI Community of Practice (learning community). The goals of the community are to:
   a. Provide a strong information source to the group of individuals above.
   b. To provide access for the group above to integrate numerous activities including; dissemination of new knowledge across these groups, dissemination of research activity by students, alumni and faculty, advisory services (course and research) for current students, and connectivity to corporate partners.
   c. To provide a dialog platform for these groups of individuals.
5. Faculty ratings and program ratings from students continue to be very strong. As mentioned before we will integrate all international programs into the online evaluation program.
6. In March, 2009, a faculty Wiki will be complete and enable faculty (permanent and adjunct) to converse about a variety of topics including research, dissemination of research, program evaluations, program change, new course development and enhancement, and a host of other activities. Students and others will be included in some of this activity as needed. This has always been a process, but will become more transparent with this new Wiki.
7. Given the current economic environment is appears prudent to build processes to be continued at anytime that insure the best possible communication and conversion of

prospective applicants takes place. International administrators handle much of this work, but in the case of RIT locally, this is part of School's responsibility and our administrative action. We will build a thorough follow-up and follow through program to insure the best possible conversion.

8. Beginning in 2008 school year RIT in general and specifically CAST has embarked upon a large and detailed effort to achieve scholarship throughout the college and the university. The SLI and Hosp Tour programs will build processes to increase the ability and capacity of faculty and students in these programs to realize scholarship. In the short term this has resulted on an emphasis with students to prepare research projects and thesis worthy of publication, peer review and dissemination. While not every student project or thesis will be worthy of publication, they will all understand that to be the goal as they begin pursuing their research. In the longer term, these project and thesis will be coordinated with corporate, government and other sponsors to realize value and productivity goals.
9. Alumni outcomes. While understanding the value of our programs is critical, we have not specifically tracked alumni to determine if their newfound knowledge has been useful. By and large the greatest population of our students have been adult learners, and while these individuals always expressed great satisfaction and usefulness of program materials, a formal program through the Community of Practice will be built over this coming year.
10. Faculty and student orientations have been ongoing throughout the existence of SLI and Hosp Tour programs. In general, every quarter an Orientation for new students occurs, a new faculty member receives significant personal and professional orientation to the local and international programs, and faculty course debriefs occurs whether taught internationally or local at RIT. The program for students will be expanded in the near term to include training for students about plagiarism, academic dishonesty, and team building. In this most recent year, each of these topics became more problematic. While these all are discussed and referenced in the student orientation manual, faculty will gather to discuss and determine actions to insure compliance with established procedures and policy. New actions will be undertaken by the end of this academic year.
11. New programs. Our programs have been popular for a number of years. Specifically, the Executive Leader (EL) program has enjoyed strong recognition internationally. As our programs continue to grow it will be necessary to increase our capacity to produce the same outstanding results as previously achieved. Critical in this capacity building will be recognition of faculty loading given the rightfully added new scholarship requirements. The program enjoys the use of a host of highly qualified and dedicated PhD adjunct faculty (largely home grown). Their availability and dedication aside, they too, will need to be afforded scholarship and other responsibilities – e.g. research project guidance, sponsorship of highly qualified students, and so forth. Hence, it become imperative that we continue to advance how we treat and grow these assets. They need to be a continuous portion of our programming and growth.

Executive Summary
Middle States Outcomes Assessment Report
For
Hospitality and Service Management Undergraduate Program
And
Nutrition Management Program

February 15, 2009

Prepared by:
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Program Directors

Introduction

The Hospitality and Service Management Department at the Rochester Institute of Technology has two separate undergraduate programs:

1. Hospitality and Service Management with concentrations in Food Management, Hotel/Resort Management, and Travel/Tourism Management. Other concentrations are being planned.
2. Nutrition Management, a program that must meet specific accreditation requirements for the American Dietetics Association.

Because the programs are quite different, the Outcomes Assessment reports for both programs are shown separately in this report on undergraduate programs of the Hospitality and Service Management department.

Hospitality and Service Management (HSM) Program Summary

This Outcomes Assessment report emphasizes improvements in two major undergraduate areas: curricular initiatives in global skills and in the professional appearance and social skills of our graduates. Additionally, some overall directions of the department are included here.

Since the last summary report on Outcomes Assessment, HSM has created a Service management minor and a Human Resources Management minor. These were created using already approved courses and are open to any students on campus who are interested. Additional international programs are being created based on the HSM undergraduate curriculum, and those have their own coordinators.

The Hospitality and Service Management programs are currently undergoing planning for revisions as listed here:

1. Development of a core of courses to provide more educational experiences that will prepare graduates for work in a global business environment.
2. A new Event Management concentration and a Wine/Beverage minor are being planned.

As the result of faculty internships in industry and advisory board, alumni, and industry recommendations, additional academic preparation is being planned into the HSM curricula to prepare graduates for careers in a business world that is increasingly global in scope with international employees and customers. This is the single most important revision underway, and it is reflected in the revisions made to the outcomes assessment report attached for HSM undergraduate programs. The undergraduate programs attract a diverse group of students, including international students, and this is a positive force in the HSM educational experience.

Advisory board members, alumni, and corporate partners interact with HSM students in several ways. The department holds Alumni Panel seminars to introduce students to career paths. Corporate professionals serve on the HSM International Advisory Board, interview students for employment, and mentor students in various ways through classes and cooperative education. They participate in invited presentations and receptions with students. Feedback from these professionals highlighted the need for HSM programs to pay more attention to the professional dress and social skills needed of graduates, along with the

academic knowledge and skills typically measured in outcomes assessment. The diversity of students in HSM programs means that each comes with individual experiences in social and professional situations. HSM has added this to improvements needed in Outcomes Assessment in this report.

Nutrition Management Program Summary

Since the last Middle States Outcome Assessment was accomplished, the Nutrition Management Program successfully completed the American Dietetic Association accreditation process by the Commission on Accreditation for Dietetics Education (CADE) in October 2007.

New Eligibility Requirements and Accreditation Standards (ERAS) for Dietetic Education programs were approved by CADE in January 2008 for implementation by March 1, 2009. We are currently evaluating the impact of the required changes to our program assessment and management. Our next required document (5 year report) will be due in 2010 showing evidence that these new ERAS have been implemented. To date, our program goals have been edited to include changes dictated by the ERAS. This has resulted in a change in the number and content of program goals. Changes are reflected in red on the Program Assessment Plan. As ERAS are implemented, additional adjustments may be needed. Program, graduate, and internship director survey results are reviewed annually for continuous improvement. Feedback data indicates that program graduates are well prepared for supervised practice, successful completion of RD exam, and gainful employment in the food and nutrition industry. For example, survey results from all constituents continue to emphasize the value of co-operative work experience in the healthcare environment; therefore, the previous suggestion by program faculty that one of the three co-op experiences be completed in the healthcare environment has now become mandated and is stated in the Nutrition Management Policy and Procedure Manual. In addition, over the past three years, the GPA requirement for DPD program admission and maintenance has been raised from a 2.8 to 3.2 to ensure that the caliber of students in the program will be successful applicants to supervised practice. This policy change has been operationalized via a contract system. Students whose GPA falls below the required 3.2 are required to sign a contract which allows students two additional quarters to meet the GPA requirement. Students who fail to do so are

required to change their major. This is in response to the national trend of increased number of students enrolled undergraduate dietetic programs has made acceptance into post baccalaureate supervised practice much more competitive. Finally, while all survey results indicate that program graduates are competent in counseling skills, occasionally students indicate a need for more practice in counseling; therefore, additional exposure to counseling skills and the Stages of Change have been recently added to the Nutrition in the Life Cycle and Community nutrition course content.

Other trends include the following: 1) Increased interest in the program by students in various disciplines with marginal GPA's. Therefore, a policy has been initiated that only those students seeking enrollment in the Nutrition Management Program must have a minimum GPA of 3.0. These students are required to sign a contract allowing two quarters for the 3.2 GPA requirement to be met while scheduled for a full load of courses (16-18 credits). Students who fail to do so are counseled to seek other career paths. 2) An increasing interest in the program by students affiliated with the National Technical Institute for the Deaf (NTID). Several methods, such as use of additional contracts, communication with NTID personnel, etc., are currently being employed to evaluate the ability of these students to successfully complete program requirements and secure a post baccalaureate supervised practice.

We will continue to collect and assess data/feedback per the program assessment plan to ensure excellence in the RIT's Nutrition Management program.

Rochester Institute of Technology

College of Applied Science and Technology

Manufacturing &Mechanical Engineering Technology & Packaging Science Department

Department Continuous Improvement Report

Contents:

MMET/PS Department Summary

BS in Electrical/Mechanical Engineering Technology Program Report

BS in Manufacturing Engineering Technology Program Report

BS in Mechanical Engineering Technology Program Report

BS in Packaging Science Program Report

MS in Packaging Science Program Report

MS in Mfg. and Mechanical Systems Integration Program Report

MMET/PS Continuous Improvement

Process Department Summary Report for 2007/8

Introduction

The Manufacturing and Mechanical Engineering Technology and Packaging Science Department offers 4 undergraduate and 2 graduate programs. Bachelor of Science programs include Electrical/Mechanical Engineering Technology, Manufacturing Engineering Technology, Mechanical Engineering Technology and Packaging Science. Master of Science Programs include Packaging Science and Manufacturing and Mechanical Systems Integration.

Departmental Mission:

To provide supportive, cooperative and synergistic environment for and the delivery of undergraduate and graduate programs in:

Electrical/Mechanical Engineering Technology
Manufacturing Engineering Technology
Mechanical Engineering Technology
Packaging Science

Departmental Vision:

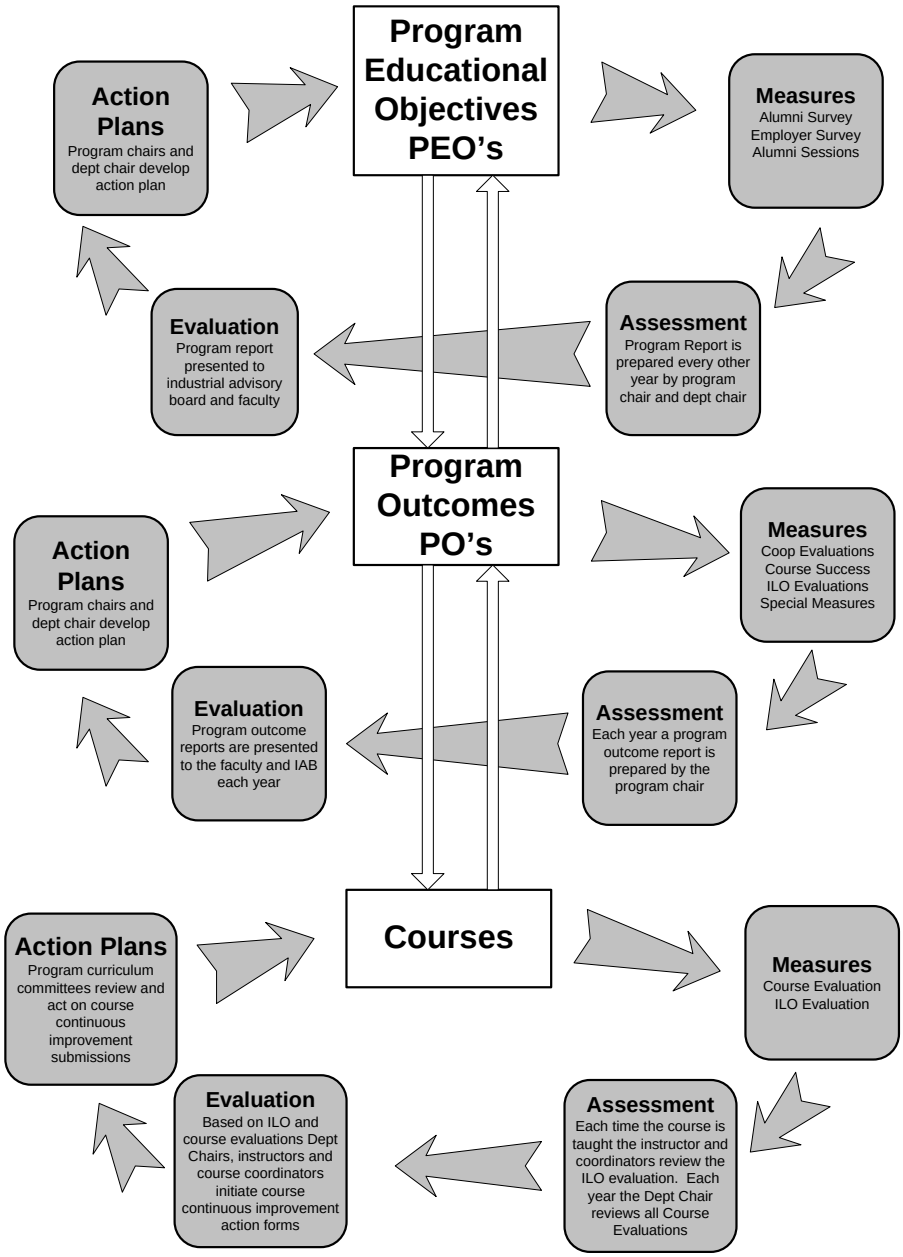
The vision of the department is to be the leader in providing innovative, career-oriented education in design, manufacturing, packaging and distribution of goods.

Departmental Goals:

Produce graduates that can function well in the real world
Continue to be the leader in career-focused education
Continue to be the leader in cooperative education programs with industry partnerships
Deliver part-time and distance programs where appropriate
Maintain state-of-the-art laboratories for application-oriented instruction/education
Provide an environment for continuous improvement of faculty and curriculum
Develop external partnerships with industry, technical societies, government, community and academia
Provide accredited Engineering Technology Bachelor Degree Programs
Enable applied research and training opportunities
Support student-centered extra-curricular activities
Provide programmatic academic and career counseling
Encourage effective and innovative teaching
Provide opportunities for lifelong learning by alumni

Continuous Improvement Process:

The programs of the MMET/PS Department are in various stages of implementation of a common three loop continuous improvement process described by the following diagram.



The bottom loop is focused on course level evaluation. The middle loop is focused on evaluating program outcomes (POs) and the top loop evaluates high level program educational objectives (PEOs). POs are what the students should be able to achieve upon graduation, PEOs should be met 3-5 years from graduation.

Course Evaluation:
Measures evaluate the course in general and how well the intended learning outcomes (ILOs) are being met. Students respond to a survey at the end of the course which asks to what degree they think the ILOs were met, and their confidence that they can meet the outcome. Students are also surveyed as to their opinion of the course and the instructor. Individual comments are a useful component of this survey. Each instructor is provided a copy of ILO evaluation results in order to make changes to the course approach in terms of amount of time spent on certain subjects and the method of delivery. The results are also viewed by the department chair, program chair, and course coordinator. These people discuss any issues with the course or instructor. General course and instructor evaluations are treated similarly to the ILO evaluations. In addition to possible course improvements, they are used by the department chair to evaluate faculty and suggest how they might improve their teaching skills. This is done informally each quarter and formally through the written faculty annual review system.

Program Outcome Evaluation:
The middle evaluation level focuses on the measurement and evaluation of program outcomes (POs). Actions from these measurements are either to suggest course outline changes, which feed into the lower loop evaluation, or changes to the curriculum. Since fulfilling POs depend on ILOs being fulfilled, a primary measure of POs being met is whether the contributing ILOs are being met. Thus each quarter, when the ILOs are evaluated, the program chair also reviews those measurements to make sure they are not systematically weak in a particular PO area. An additional important evaluation tool for POs is the quarterly coop report from employers of coops. This report asks the employer several questions that are closely tied to program POs.

Program Educational Objectives Evaluation:
The highest evaluation level focuses on the measurement and evaluation of Program Educational Objectives (PEOs). PEO measurement takes the form of alumni and employer surveys (conducted every three years), IAB discussions, and alumni discussions at special events. Every three years, as a part of the department strategic planning process, each program reviews its PEOs and POs. In particular PEOs must be reviewed (in the form of surveys and focus groups) with employers who have been hiring the majority of the program's graduates. The IAB and faculty must then discuss and approve the updated PEOs and POs in the context of the feedback from alumni and employers.

Program Reports:
What follows is a report of findings from each program. In general the undergraduate programs in engineering technology have fully implemented these processed and are focused on their second round of evaluation and improvement. For the MS and packaging programs this process is still very new and is in the process of being fully implemented. The challenge for the coming year will be to sustain the efforts underway in the ET programs and to continue implementation in the other programs.

Electrical Mechanical Engineering Technology

2008 Continuous Improvement Process Executive Summary

Dates Covered:
The 2008 Report covers Academic Year 2007, which runs from September 2007 - August 2008.

Introduction:
This document covers the activities undertaken to fulfill the objectives of the Electrical / Mechanical Engineering Technology Continuous Improvement Process (E/M ET CIP), which specifies a summary report is prepared at the end of each academic year.

The report is divided into several sections including Overview, Process, Continuous Improvement Activities in 2007-8, Proposed Continuous Improvement Activities for 2008-9, and Supporting Documentation.

Overview:
This report covers Program Outcome (PO) assessment and Program Educational Objectives (PEO's). Assessment results are presented to the faculty and the E/M ET Industrial Advisory Board.

Process:
The E/M ET CIP is based on the assessment of the degree to which students demonstrate competence in PO's prior to graduation and graduates demonstrate competence in PEO's within 5 years of completing the program. Findings of this report are based on the PO Evaluations found later in this document.

Continuous Improvement Activities Completed & Needed - 2007 Academic Year:

1. It is important to update the ILO map to courses, as so many have changed in the last year. With RIT requiring no more than 194 quarter hours and at least 12 quarter hours of free electives, the curriculum has changed significantly. This will need to be reevaluated after completing implementation of the curriculum changes, and will occur in 2008 school year.

2. The E/MET program still needs to better define a capstone course or an integrating experience. This is also obvious from the ABET final report, showing that we meet the letter of the criteria, but have a way to go to meet the spirit of the criteria. A redesign of the laboratory sequence is going to help in this area. The replacement of Telecommunications Fundamentals with a course in Systems and Controls in fall of 2009 could address this issue.

3. In the current setup, one required course is available live evenings only. This is 0609 412. We may want to offer these days for our full time students.

4. In the current schedule, four courses will only be available in distance format. They are 0610 408, 0610 410, 0610 432 and 0610 441. One of these courses, 441, is now available in blended format. I am told that 432 is best done in the distance format, but we should still see. The instructor for 408 and 411 is not in the Rochester area.

5. The MMET/PS department has revised the format of MET Lab I to an Experimental Methods for E/M course. This has addressed many of the weaknesses found in the previous assessment.

6. The Thermal Fluid Sciences sequence video tapes for distance sections are old and based on an older edition of the text. The course content will be revised and then the videos will be updated in the summer of 2008.

7. There are several other areas where specific issues will be watched by the program and department chairs. Much progress has been achieved in several areas, providing the students with better instruction. The continued progress will need to be monitored.

8. This is some data lacking this year and some of it was able to be located. Others, such as some ILO assessments and some pre-tests, need to be again formalized.

9. The information on the E/M programs web has been updated with the changes made for the online students, further updates for layout and information are continuing to be developed/

10. During the 2006-7 year, several programmatic changes are being made. A one-week laboratory is now available in place of many of the on-campus long weekend labs for online students.

Assessment Summary/Actions for Continuous Improvement:
A regular analysis of the program was done in an organized manner, with each of the indices as proposed to ABET. The results are shown below.

A. The ability to apply technical expertise from the following areas to the analysis, design, development, implementation, or oversight of mechanical and electrical systems and processes:

A1 Manufacturing Processes

No Action Needed

A2 Engineering Materials

No Action Needed

A3 Statics

For E/MET, the three course sequence in Mechanics for freshmen is in need of some upgrade. The pre-test used in Strength of Materials needs to be refined and will be reinstituted in 2009. The two course sequence is in good shape, but should also use a pretest in the second course. A method to encourage distance learning

students to fill out ILOs for the two course sequence needs to be developed.

A4 Strength of Materials
No action needed.

A5 Dynamics
No action needed.

A6 Fluid power/fluid mechanics
No action needed.

A7 Thermodynamics
No action needed.

A8 Computer aided engineering tools
No action needed. ILO's need to be reinstituted.

A9 Computer programming
No action needed.

A10 Electric circuits
ECTET is now in much better shape in the circuits sequence. The "Electrical Principals" (0609-411) course had its videos upgraded and "Intro to ECTET" (0618-213) replaced the previous sequence this past year.

A11 Electronics
This course is in good shape, the content for the upgrade to the video tapes will be finalized then the videos will be replaced this next year.

A12 Electric power
No action needed at this time

A13 Microcomputers
No action needed at this time.

A14 Industrial control systems
No action needed.

A15 Industrial instrumentation
No action needed.

A16 Project and production management.
No action needed.

A17 Engineering economics
No action needed.

B. The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and technology.
No action needed.

C. The ability to formulate, conduct, analyze, and interpret experiments and apply experimental results to improve designs and processes.
ECTET has improved its circuits courses. MMET/PS is continuing to redirect the emphasis in "MET Lab I" (0610-407). These have improved the results in this area. No action needed.

D. The ability to apply creativity to the design of systems, components or processes in the Electrical/Mechanical Engineering Technology field.
No action needed.

E. The ability to function effectively on teams.
No action needed,

F. The ability to identify, analyze and solve technical problems.
Explore ways to increase retention of fundamental concepts. The redirecting "MET lab I" (0610-407) course has improved this outcome.

G. Effective communication.
No new action needed. Data on minimums is missing from "MET Lab I" for the oral and written communications, while averages are appropriate..

H. A recognition of the need for, and the ability to, engage in lifelong learning.
No action needed.

I. A knowledge of the ethical and social responsibilities expected of professionals working in Electrical/Mechanical Engineering Technology.
No action needed.

J. A respect for diversity and have knowledge of contemporary professional, societal, and global issues.
No new action.

K. A commitment to quality, timeliness, and continuous improvement.
No action needed at this time.

L. Specialized expertise in a single technical field.
No change in procedure at this time. The potential for a capstone course or integrating experience is being addressed in a redesign of the laboratory sequences. A controls course that may suit this purpose will be offered in Fall of 2009.

M. Competence in the use of the computer to solve problems, write reports, make presentations, and as a communication tool.
No action needed. ILOs again needed in Computers in MET (0610-432).

N. Meaningful work experience in the electrical/mechanical engineering technology field.
No action needed.

Program Educational Objectives (PEO):
A review of the overall objectives of the program was done this year. Studies were done in 2003-4 to support the re-accreditation activities and will be done on an every-third-year basis. A new questionnaire has been designed and was mailed in January 2007. Information from that survey is being processed and reviewed.

Graduates from RIT's E/MET Program will demonstrate:

1. A professional work ethic, a commitment to lifelong learning, quality and continuous improvement through the clear ability to assume increasing levels of technical and/or management responsibility.
This PEO is supported by all Program Outcomes
2. Participation and leadership while working on teams involved in the analysis, design, development, implementation, or oversight of electrical, mechanical and/or manufacturing systems and processes.
This PEO is supported by all Program Outcomes
3. An ability to design effective and efficient new products, systems and processes.

This PEO is supported by Program Outcomes A1-A17, D

4. Effective communication at all levels of the organization.

This PEO is supported by Program Outcomes G, H, I, J

Program Outcomes (PO) for Electrical / Mechanical Engineering Technology:

A regular analysis of the program was done in an organized manner, with each of the indices as proposed to ABET. The results are shown below.

"Graduates from the Electrical/Mechanical Engineering Technology Program will demonstrate:"

A. The ability to apply technical expertise from the following areas to the analysis, design, development, implementation, or oversight of mechanical and electrical systems and processes:

A1 Manufacturing processes
A2 Engineering materials
A3 Statics
A4 Strength of materials
A5 Dynamics
A6 Fluid power/fluid mechanics
A7 Thermodynamics
A8 Computer aided engineering tools
A9 Computer programming
A10 Electric circuits
A11 Electronics
A12 Electric power
A13 Microcomputers
A14 Industrial control systems
A15 Industrial instrumentation
A16 Project and production management.
A17 Engineering economics

B. The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and technology.

C. The ability to formulate, conduct, analyze, and interpret experiments and apply experimental results to improve designs and processes.

D. The ability to apply creativity to the design of systems, components or processes in the Electrical/Mechanical Engineering Technology field.

E. The ability to function effectively on teams.

F. The ability to identify, analyze and solve technical problems.

G. Effective communication.

H. A recognition of the need for, and the ability to, engage in life long learning.

I. A knowledge of the ethical and social responsibilities expected of professionals working in Electrical/Mechanical Engineering Technology.

J. A respect for diversity and have knowledge of contemporary professional, societal, and global issues.

K. A commitment to quality, timeliness, and continuous improvement.

L. Specialized expertise in a single technical field.

O. Competence in the use of the computer to solve problems, write reports, make presentations, and as a communication tool.
P. Meaningful work experience in the electrical/mechanical engineering technology field.

Manufacturing Engineering Technology
2008 Continuous Improvement Report

Executive Summary:
Dates Covered
The 2008 Report covers Academic Year 2007, which runs from September 2007 - August 2008.

Introduction:
This document covers the activities undertaken to fulfill the objectives of the Manufacturing Engineering Technology Continuous Improvement Process (MfgET CIP), which specifies a summary report is prepared at the end of each academic year.

The report is divided into several sections including Overview, Process, Continuous Improvement Activities in 2007-8, Proposed Continuous Improvement Activities for 2008-9, and Supporting Documentation.

Overview:
This report covers Program Outcome (PO) assessment and Program Educational Objectives (PEO's). Assessment results are presented to the faculty and the MMET Industrial Advisory Board.

Process:
The MfgET CIP is based on the assessment of the degree to which students demonstrate competence in PO's prior to graduation and graduates demonstrate competence in PEO's within 5 years of completing the program. Findings of this report are based on the PO Evaluations found later in this document.

Continuous Improvement Activities Completed - 2007 Academic Year:

PEO A4 Tooling:

Added a direct measure from 0617-485 Robots in Manufacturing; grades from gripper design project.

PEO A5 Automation:

Further development of a fully integrated automation robotics laboratory was identified and is currently seeking faculty to address that need. New robots and supporting equipment are also being brought in to meet the initiatives of a fully integrated automation robotics lab. Two modern (circa 2000) used robots have been secured and are being implemented into the curriculum.

PEO A9 Statistics:

Students have been taking Data Analysis I but the program has been revised to additionally require Data Analysis II, which will enrich student's preparation for topics in statistical process control.

PEO B - The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology:
Added a direct measure, Tear-Down Project grade from 0617-455 Intro to Surface Mount Electronics.

Assessment Summary/Actions for Manufacturing Engineering Technology Continuous Improvement

Overall assessment is broken into the following categories: Excellent, Satisfactory, Fair, Needs Improvement.

2008 Report	**Action Summary Manufacturing Engineering Technology Continuous Improvement**				
PO/ PEO	**Outcome**	**Overall Assessment**	**Action**	**Responsible**	**Target Date**
PEO a	A professional work ethic, a commitment to lifelong learning, quality and continuous improvement through the clear ability to assume increasing levels of technical and/or management responsibility.	Next Alumni Survey Cycle	Questions will be written for the next Alumni Survey that more directly assess this PEO.	Program Chair	Date of Next Alumni Survey
PEO b	Leadership and participation in teams that act as change agents and innovators in product design and manufacturing related organizations.	Next Alumni Survey Cycle	Questions will be written for the next Alumni Survey that more directly assess this PEO.	Program Chair	Date of Next Alumni Survey
PEO c	The ability to drive the	Next Alumni	Questions will be written for the next	Program	Date of

2008 Report	Action Summary Manufacturing Engineering Technology Continuous Improvement				
	design of manufacturable products, design effective and efficient new production systems and improve the performance of supply chains.	Survey Cycle	Alumni Survey that more clearly determine the degree of involvement of Mfg graduates in the design activities of industries where they are employed.	Chair	Next Alumni Survey
PEO d	Effective communication	Next Alumni Survey Cycle	Questions will be written for the next Alumni Survey that more directly assess this PEO.	Program Chair	Date of Next Alumni Survey 2007 Report
All PEO's and PO's	All	N/A	Review needs of employers relative to changing roles of manufacturing engineers.	Program Chair	Ongoing
A1	Materials	Satisfactory	More direct measures of the ILO's for this PO will be developed.	Program Chair	2009 Report
A2	Manufacturing Processes	Excellent	More direct measures of the ILO's for this PO will be developed	Program Chair	2009 Report
A3	Quality	Fair	Adding 1016-320 Data Analysis II to curriculum.	Program Chair	Fall 2009
A4	Tooling	Satisfactory	No curriculum action needed.	Program Chair	Complete
A5	Automation	Excellent	No curriculum action needed. More direct measure needed.	Program Chair	Spring 2009
A6	Production and Supply Chain Operations	Excellent	No curriculum action at this time. Consider adding more direct measures and criteria for this outcome.	Program Chair	2009 Report
A7	Maintenance	Satisfactory	No curriculum action needed. More direct measure needed.	Program Chair	2009 Report
A8	Organization and Management	Satisfactory	No curriculum action needed. More direct measure and criteria needed.	Program Chair	Spring 2009
A9	Statistics	Fair	Adding 1016-320 Data Analysis II to program.	Program Chair	Fall 2009

2008 Report	Action Summary Manufacturing Engineering Technology Continuous Improvement				
A10	Financial Measures	Satisfactory	No curriculum action needed. Consider adding more direct measure.	Program Chair	Spring 2009
A11	Systems Integration	Excellent	No curriculum action needed. More direct measure needed - perhaps in 0617-510 Process Design	Program Chair	Spring 2008
B	The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology	Excellent	No curriculum action needed. Added direct measure of Tear Down Project Grade in 0617-455 Intro to Surface Mount Electronics	Program Chair	Complete
C	The ability to formulate, conduct, analyze and interpret experiments and apply experimental results to improve processes	Satisfactory	Join Mechanical Engineering Technology program in investigating how to improve this area.	Program Chair	2009 Report
D	The ability to apply creativity in the design of manufacturing systems, components, processes and supply chains	Excellent	No curriculum action needed.	Program Chair	Complete
E	The ability to function effectively on teams	Excellent	No curriculum action needed. Add direct measure of teamwork to 0617-475 or 0617-510	Program Chair	Spring 2009
F	The ability to identify, analyze and solve technical problems	Excellent	No curriculum action needed.	Program Chair	Complete
G	Effective communication	Satisfactory	No curriculum action needed.	Program Chair	Complete
H	Recognition of the need for, and the ability to, engage in lifelong learning	Satisfactory	No curriculum action needed.	Program Chair	Complete

2008 Report	Action Summary Manufacturing Engineering Technology Continuous Improvement				
I	Knowledge of the ethical and social responsibilities of professionals working in the manufacturing engineering technology field	Excellent	No curriculum action needed.	Program Chair	Complete
J	Respect for diversity and knowledge of contemporary professional, societal and global issues	Excellent	No curriculum action needed.	Program Chair	Complete
K	Commitment to quality, timeliness, and continuous improvement	Excellent	No curriculum action needed.	Program Chair	Complete
L	Competence in the use of the computer as a problem solving and communications tool	Excellent	No curriculum action needed.	Program Chair	Complete
M	The ability to apply project management techniques to the completion of laboratory and project assignments	Excellent	No curriculum action needed.	Program Chair	Complete
N	Successful completion of a comprehensive design project that demonstrates the ability to improve the manufacturability of product designs and design effective new manufacturing/assembly processes and procedures	Excellent	No curriculum action needed.	Program Chair	Complete
O	Meaningful work experience in the manufacturing engineering technology field	Excellent	No curriculum action needed.	Program Chair	Complete

2008 Report	Action Summary Manufacturing Engineering Technology Continuous Improvement				
P	The ability to articulate of the economic and organizational importance of manufacturing to companies, individuals and the community	N/A	Identify metrics – missing from previous report.	Program Chair	Spring 2009

Program Educational Objectives (PEO) for Manufacturing Engineering Technology:

Graduates from the Manufacturing Engineering Technology Program will demonstrate:

A professional work ethic, a commitment to: lifelong learning; quality; and continuous improvement, through the clear ability to assume increasing levels of technical and/or management responsibility.

Leadership and participation in teams that act as change agents and innovators in product design and manufacturing related organizations.

The ability to drive the design of manufacturable products, design effective and efficient new production systems and improve the performance of supply chains and manufacturing related organizations.

Effective communication at all levels of the organization.

Program Outcomes (PO) for Manufacturing Engineering Technology:

Graduates from the Manufacturing Engineering Technology Program will demonstrate:

A The ability to apply the knowledge, techniques, skills and modern tools of manufacturing technology listed below to the solution of manufacturing problems.
- A1 Materials
- A2 Manufacturing Processes
- A3 Quality
- A4 Tooling
- A5 Automation
- A6 Production and Supply Chain Operations
- A7 Maintenance
- A8 Industrial Organization and Management
- A9 Statistics
- A10 Financial Measures
- A11 Systems Integration

B The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

C The ability to formulate, conduct, analyze and interpret experiments and apply experimental results to improve processes.

D The ability to apply creativity in the design of manufacturing systems, components, processes and supply chains

E The ability to function effectively on teams.

F The ability to identify, analyze and solve technical problems.
G Effective communication.
H Recognition of the need for, and the ability to engage in lifelong learning.
I Knowledge of ethical and social responsibility expected of professionals working in the manufacturing engineering technology field.
J Respect for diversity and a knowledge of contemporary professional, societal and global issues.
K Commitment to quality, timeliness, and continuous improvement.
L Competence in the use of the computer as a problem solving and communications tool.
M The ability to apply project management techniques to the completion of lab assignments and projects.
N Successful completion of a comprehensive design project that demonstrates the ability to improve the manufacturability of product designs and design effective new manufacturing/assembly processes and procedures.
O Meaningful work experience in the manufacturing engineering technology field.
P The ability to articulate the economic and organizational importance of manufacturing to companies, individuals and the community.

Measurements and Findings:

Sample Program Outcome Assessment Table (these are completed for all outcomes)

	Program Outcome					
PO Number	Graduates from the Manufacturing Engineering Technology Program will demonstrate:					
A1	The ability to apply the knowledge, techniques, skills and modern tools of manufacturing technology listed below to the solution of manufacturing problems: **Materials**					
Strategy	**Primary Learning Opportunity:** • 0610-211 Introduction to Materials Technology • 0610-416 Materials Technology **Application Opportunity:** • 0610-304 Materials Testing • 0610-315 Principles of Mechanical Design • 0610-409 MET Lab II • 0617-220 / 420 Manufacturing Processes I and II					
Performance Criteria Measures	1. Select a metal for a specific design application (0610-211)					
	2. Select plastics, adhesives, ceramics, and composites for design applications (0610-416)					
Assessment Methods						
Data Sources	**Performance Criteria**		**Results**			
Student ILO Assessment for 0610-211 and 0610-416	Average Score > 80	PC	Metric	Fall 2006	AY 2006	AY 2007
		1	Coverage	88	94	90
			Confidence	86	86	84
		2	Coverage	87	94	93
			Confidence	86	89	89

Grades in 0610-211 Introduction to Materials Technology	Success Rate > 80% where success is a C grade or better in the course. W's and I's are not included in the calculation.	Historical Norm	Fall 2005 N=109	AY 2006 N=151	AY2007 N=212
		91%	89%	85%	92%
Program Outcome Exit Survey	Coverage and Confidence Rating averages > 4.0	Historical Norm	Spring 2005 N=8	AY 2006 N=6	AY 2007 N=8
		NA	4.5/2.25	4.67/4.33	4.00/4.00
Grades in 0610-416 Materials Technology	Success Rate > 80% where success is a C grade or better in the course. W's and I's are not included in the calculation.	Historical Norm	Fall 2005 N=63	AY 2006 N=152	AY 2007 N=129
		96%	95%	97%	98%
Assessment:	Satisfactory. Program outcome exit survey indicates **materials** metrics need to be closely monitored.				
Action:	No curriculum action is needed. More direct measures are needed.				

Mechanical Engineering Technology

2008 Continuous Improvement

Introduction

This report covers the activities undertaken to fulfill the objectives of the Mechanical Engineering Technology Continuous Improvement Plan. The report is divided into the following sections:

- Summary
- Process
- Program Educational Objectives (PEO's)
- Program Outcomes (PO's)
- Continuous Improvement Action Plan for 2007-2008
- Proposed Continuous Improvement Action Plan for 2008-2009
- Supporting Documentation.

Summary

This report covers Program Outcome (PO) assessment and Program Educational Objectives (PEO's). Assessment results are presented to the faculty and the MMET Industrial Advisory Board. Data has been collected from the Co-op Results survey and is in process of being collected from the Alumni surveys. The Industrial Advisory Board along with the faculty and some Alumni revised the survey and is awaiting return. Many course actions are not able to be assessed due to awaiting the compilation of the survey data.

The program outcomes and program educational objectives from the previous report have been revised and extended into 2007. Planned upcoming MET Curriculum Committee meetings will have on the agenda any issues to complete or revise ones that need modification. Once evaluated, this CIP matrix will be presented to the Industrial Advisory Board and the Department faculty for validation.

Process

The MET CIP is based on the assessment of the degree to which graduates demonstrate competence in PEO's within 5 years of completing the program and students demonstrate competence in PO's prior to graduation. PEO's are assessed every other year and are due to be assessed next academic year. PO's are assessed yearly. Based on the PEO and PO Assessment results, improvement projects are identified and entered in the MET Continuous Improvement Action Plan document. The faculty is asked to volunteer to assume responsibility for various projects. Implementation plans are reviewed by the MET Curriculum Committee. The effect of these projects is measured through the normal PEO and PO Assessment process.

Program Educational Objectives:

Graduates from the Mechanical Engineering Technology Program will demonstrate:

1. A professional work ethic, a commitment to lifelong learning, quality and continuous improvement through the clear ability to assume increasing levels of technical and/or management responsibility.
2. Participation and leadership while working on teams involved in the analysis, design, development, implementation, or oversight of mechanical and/or manufacturing systems and processes.
3. An ability to design new and improved products, systems and processes that are appropriate for their use.
4. Effective communication with all levels of the organization.

Program Outcomes

Graduates from the Mechanical Engineering Technology Program will demonstrate:

A The ability to apply technical expertise from the following areas to the analysis, design, development, implementation, or oversight of mechanical systems and processes:
   - A1 Manufacturing processes
   - A2 Engineering materials
   - A3 Statics
   - A4 Strength of materials
   - A5 Dynamics
   - A6 Fluid mechanics
   - A7 Thermodynamics
   - A8 Computer aided engineering tools
   - A9 Mechanical design
   - A10 Electric, Hydraulic and Pneumatic Circuits

B The ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

C The ability to formulate, conduct, analyze and interpret experiments and apply experimental results to improve designs and processes.

D The ability to apply creativity to the design of mechanical systems, components and processes.

E The ability to function effectively on teams.

F The ability to identify, analyze and solve technical problems.

G Effective communication

H Recognition of the need for, and the ability to, engage in lifelong learning.

I Knowledge of the ethical and social responsibilities of professionals working in the mechanical engineering technology field.

J Respect for diversity and knowledge of contemporary professional, societal and global issues.

K Commitment to quality, timeliness, and continuous improvement.

L Competence in the use of the computer as a problem solving and communications tool.

M The ability to apply project management techniques to the completion of laboratory and project assignments.

N Knowledge of and the ability to apply codes and regulations, and produce proper documentation to comply with them.

O Meaningful work experience in the mechanical engineering technology field.

Continuous Improvement Action Plan for 2007-2008

Continuous Improvement Projects for PO's are listed for action in the Continuous Improvement Action Plan for 2006-2007. Refer to the tables in the Present Action Plans section below for their status.

Continuous Improvement Action Plan for 2008-2009

The Continuous Improvement Projects not completed in 2006-2007 will be continued into 2007-2008. Additional projects may be identified pending the outcomes of the current assessment cycle. Identified needs to date are outlined below.

Current identified needs and their action plans:

- *Investigate formalizing a capstone project or integrating experience for all students.*

  A unique concept has been piloted in the MET program that addresses an integrating experience while avoiding the cost and pitfalls of the traditional capstone experience. This idea hinges around the concept of several focused projects within a series of core courses that specifically address the MET Program Outcomes. A scholarship paper is planned by several faculty for publishing and presenting next year. Data needs to be collected in order to validate performance.

  Action Plan:

  1. *Assessment stage – Completed*. It has been shown that the MET program does not or will not meet the current expectations of the ABET integrating experience. In the past, we have relied upon the Co-op program as the only integration method which was acceptable at that time. It has been strongly advised by ABET evaluators that this will not be acceptable as a singular event in the future evaluations.

2. *Planning stage – Completed*. A trial run of this concept has been piloted in two core courses with very exciting results.
3. *Implementation stage – In process.* The program champions of each MET discipline have been charged with identifying in each core course an opportunity to implement this template.
4. *Verification stage – Planned.* Verification of the idea has yet to be started.

- *Improve attendance of the IAB members.*

  A concentrated effort needs to be made to increase the IAB membership and support. An action plan will be in place by end of the academic year. A process that better involves the IAB and gives them a more active role will be outlined.

  Action Plan:

  1. *Assessment stage – Completed*. A maximum of 3 attendees were present at the last two meetings.
  2. *Planning stage – Completed.* A plan has been enacted to engage more industry members by involving them in student project evaluations and the discussion of ILO needs and assessments in specific programs.
  3. *Implementation stage – Completed.* Cold calls by faculty to their previous contacts in industry resulted in several new members.
  4. *Verification stage – Completed.* The last IAB meeting resulted in approximately 10 attendees with a second meeting specifically involving project evaluation resulting in 8 attendees. NOTE: this needs to be repeated in order to improve attendance in the future.

- Develop a better database structure to record and report MET data.

  Action Plan:

  1. *Assessment stage – Completed*. There is a clear need to develop a database that is easier to access for the purpose of this document.
  2. *Planning stage – Completed.* A staff assistant specializing in databases has been hired and in place to start.
  3. *Implementation stage – In process.*
  4. *Verification stage – TBD.*

- Revive the concept of MET concentrations and investigate new concentration paths that address and provide current technologies.

  Action Plan:

  1. *Assessment stage – Completed*. There is a need to better define the concentrations as per the advisors and their involvement with the students asking questions regarding options and concentrations that they see in other programs.
  2. *Planning stage – In process.* Five concentration areas have been identified but need more definition regarding logistics such as instructor, delivery time, etc.
  3. *Implementation stage – TBD.*
  4. *Verification stage – TBD.*

- Address the issue of the Data Analysis lab that will be no longer offered by the College of Science.
  Action Plan:
  1. *Assessment stage – Completed*. A course is needed to address the loss of the current lab in order to meet program expectations
  2. *Planning stage – Completed.* A course has been identified and plans have been made to offer this course in fall of 2009.
  3. *Implementation stage – Completed.* Data Analysis II has been approved by both the department and college curriculum committee as an acceptable replacement for the missing course along with an elective course.
  4. *Verification stage – In process.* The course has yet to be run.

- Define an improved set of ILO's for freshmen and sophomores to increase experiential activity.
  Action Plan:
  1. *Assessment stage – In process*. Some work has been done to specific courses such as statics and strength of materials but more needs to be done to identify what would be a viable action to achieve success.
  2. *Planning stage – Scheduled.*
  3. *Implementation stage – TBD.*
  4. *Verification stage – TBD.*

Action Plans that directly address PEO's:

Program Educational Objective	Action Plans	Target Date	Post Action Assessment
1. Work Ethic, Commitment to Lifelong Learning, Quality and Continuous Improvement	Questions will be written for the next Alumni Survey that more directly assess this PEO.	2009	In Process. Data not yet compiled.
2. Leadership and Teams	Questions will be written for the next Alumni Survey that more directly assess this PEO.	2009	In Process. Data not yet compiled.
3. Design	Questions will be written for the next Alumni Survey that more clearly determine the degree of involvement of MET graduates in the design activities of industries where they are employed.	2009	In Process. Data not yet compiled.
4. Communication	Questions will be written for the next Alumni Survey that provide additional and more objective measures of communication skill.	2009	In Process. Data not yet compiled.

Shown below are the action plans for the Program Outcomes:

Program Outcome	Action Plans	Target Date	Post Action Assessment
A1 Manufacturing Processes	No curriculum action at this time.	N/A	----------
A2 Materials	More direct measures of the ILO's for this PO will be developed. Data will be collected and a baseline established.	2009	In process. Additional measures via labs and projects are being implemented.
A3 Statics	1. Add 1 contact hour per week to 0610-302 Introduction to Statics. 2. Implement a Statics Pre-Test to be given at the beginning of 0610-303 Strength of Materials to assess student preparation in statics.	Completed	The additional contact time has eased the stress in the class allowing more time for problem solving. Recent pre-test results are somewhat improved.
A3 Statics	Additional Statics Pre-Test results will be collected over the next year to confirm the improvement that has been achieved.	9/2009	Ongoing. Has been implemented and in process of data collection.
A4 Strength of Materials	1. Add 1 contact hour per week to 0610-303 Strength of Materials 2. Implement a Strength of Materials Test to be given at the beginning of 0610-407 MET Lab I and 0610-403 Failure Mechanics to assess student preparation.	Completed	The additional contact time has eased the stress on both students and instructors allowing more time for problem solving, but has not resulted in improvement so far. Test results have not been good and do not show much improvement so far. See the second group of action plans below for PO A4 attempt to address these issues.
A4 Strength of Materials	1. The Strength of Materials Test will be given at the beginning of 0610-315 Principles of Mechanical Design which is the next sequential course.	3/2009	Ongoing. Has been implemented and in process of data collection..
	2. The test will be evaluated to determine its ability to adequately and fairly assess the achievement of the strength of materials ILO's.	3/2009	In Process.
	3. The laboratory experiments in 0610-303 Strength of Materials will be streamlined to focus more on understanding concepts and less on data collection and report writing.	Completed	Evaluation indicates marginal success and needs more time to determine impact.
	4. Workshops in the more difficult areas of the course will be implemented to provide students more active and inter-active learning opportunities.	Completed	Strain gage development has been implemented with indications of substantial success.
A5 Dynamics	More direct measures of the ILO's for these PO's will be developed. Data will be collected and a baseline established.	2009	Data collected. Evaluation ongoing.
A6 Fluid Mechanics A7	More direct measures of the ILO's for these PO's will be developed. Data will be collected and a baseline established.	TBD	Action is in queue and assigned to the program area champion

Program Outcome	Action Plans	Target Date	Post Action Assessment
Thermodynamics A8 Computer Aided Engineering Tools A9 Mechanical Design			
A10 Electrical, Hydraulic and Pneumatic Circuits	More direct measures of the ILO's for these PO's will be developed. Data will be collected and a baseline established.	2009	Action is in queue and assigned to the program area champion
B Apply Current Knowledge	Design and perform laboratory experiments (0610-465) will be addressed under PO C Experimentation. No additional action is required at this time other than to continue to collect data and monitor results.	9/2009	In process.
C Experimentation	1. Determine the problem solving skills that students need to be able to excel when demonstrating competence for this PO.	3/2009	Ongoing. A project heavy in experimental analysis has been implemented in Failure mechanics (0610-403)
	2. Determine strategies that will engage students especially in the design of experiments and the interpretation of results.	3/2009	Ongoing. A project heavy in experimental analysis has been implemented in Failure mechanics (0610-403)
	3. Develop implementation plans that will integrate instruction in these skills in all appropriate courses across the curriculum and provide multiple application opportunities.	9/2009	Ongoing evaluation of plan
D Creativity E Teamwork	No action is required at this time other than to continue to collect data and monitor results.	9/2009	In process.
F Solve Technical Problems	Several corrective actions are planned that should improve performance for this PO. No additional action is required at this time other than to continue to collect data and monitor results.	---------	N/A.
G Effective Communication	1. Determine writing instructional techniques and assessment tools used within the required technical courses of the MET program.	2009	In process.
	2. Develop additional measures of communication skill that are standardized across other courses and collect additional data to better assess student baseline skill level.	2009	In process.
	3. Assess the effectiveness of 0535-403 Effective Technical Communication	2009	In process.

Program Outcome	Action Plans	Target Date	Post Action Assessment
	and determine what can be done to improve outcomes from the course.		
	4. Based on the above action plan results, develop appropriate strategies to improve the writing skills of students.	2009	In process.
H Lifelong Learning	Add ILO's relating to lifelong learning in several courses.	2009	No data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	----------	Ongoing
I Ethical and Social Responsibilities	Add ILO's relating to ethical and social responsibilities in several courses.	2009	Little data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	----------	Ongoing
J Respect for Diversity	Add ILO's relating to diversity and knowledge of contemporary professional, societal and global issues in several courses.	----------	Little data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	----------	Ongoing
K Commitment to Quality	Add ILO's relating to quality, timeliness, and continuous improvement in several courses.	2009	Little data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	2009	Ongoing
L Computing	No further action is required at this time other than to continue to collect data and monitor results.	2009	Ongoing
M Project Management	Add ILO's relating to project management in several courses.	2009	Little data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	2009	Ongoing
N Codes and Regulations	Add ILO's relating to codes and regulations in several courses.	2009	Little data is available yet to assess their effectiveness. However, the Co-op Evaluation results for this PO

Program Outcome	Action Plans	Target Date	Post Action Assessment
			are very good.
	No further action is required at this time other than to continue to collect data and monitor results.	2009	Ongoing
O Work Experience	No action is required at this time other than to continue to collect data and monitor results.	2009	Ongoing
All Program Outcomes	Develop an assessment tool to be used to assess all PO's by gathering input from students just prior to graduation.	2009	Not yet implemented

Supporting Documentation

1. 2007 Co-op Analysis Report Results
2. 2007-2008 Program Outcome Assessments
3. 2007-2008MET Program Continuous Improvement Plan of Work

Packaging Science (Undergraduate)

Continuous Improvement Process
Outcome Report for the 2007-2008 Academic Year

INTRODUCTION

This report analyzes the learning changes and modifications based on the recommendation of the Packaging Science Continuous Improvement Process Outcome Report from 2005-2006, 2006-2007 and detail continuous improvement plans. This improvement update reports key learning changes that have been made between 2007-1 through 2008-1. It includes program educational objectives, program outcomes, data, results, recommendations, action review timeline, and analyzes the action taken based upon problems identified in the last report.

PROGRAM EDUCATIONAL OBJECTIVES

The following program educational objectives are based upon the needs of the multiple stakeholders and constituents of the Packaging Science program, and the Mission / Vision of the Department and Institute.

Graduates from the packaging science program will:

- Obtain gainful employment in the packaging industry.
- Possess the capacity to successfully transition within a broad occupational cluster of the packaging industry including various packaging industry groups (supplier, service and packaging end user) and product market segments (food, cosmetic, pharmaceuticals, consumer goods, etc.).
- Continually assimilating additional professional skills, knowledge and technical expertise.
- Individually, on a team, or as a team leader perform as value contributors, change agents, and innovators within organizations and the field of packaging.

PROGRAM OUTCOMES

The following are program outcomes for the RIT Packaging Science Program. Graduates from the Packaging Science program will:

- Possess entry level mastery of the knowledge, techniques, skills and modern technology of the discipline to function in a packaging organization.
- Design, develop and implement effective and efficient new packaging systems, as well as improve the performance of existing packaging systems.
- Communicate effectively with the multiple internal and external parties involved in the organizational packaging function and understand the roles and interrelationships relative to the packaging function.
- Maintain involvement with professional packaging organizations and trade associations for the purpose of promote growth and development as packaging professionals.

DATA

The data obtained were from the co-op / placement reports. This data included employer feedback on student co-op performance in the categories of quality of work, quantity of work, competence, ability to learn, initiative, reliability, judgment, attitude, personal relations, communication skills, overall performance, self awareness, and leadership. This data, measures of central tendency, and ranges of ratings are shown in Appendix A. Addition data collected from the co-op/placement reports were feedback from the students. The data collected from the students in the categories of "level of opportunity" and "academic preparation" for a number of occupational tasks, skills, and knowledge areas. These included experiments and analysis, designing a system, team environment, diversity, responsibility, written communication, oral communication, learn new skills/abilities, modern techniques, knowledge integration, global awareness, learning, contemporary issues, engineering science and mathematics, and innovation. The data, measures of central tendency, and ranges of ratings are shown in Appendix B.

RESULTS

For the student performance evaluations conducted by the employers on a 1 (lowest)-5 (highest) Lickert scale the highest rated performance characteristic was “relations” with a mean of 4.39, (n=136). The lowest rated characteristic was “self awareness.” with a mean of 2.67, (n=136). The vast majority of means ranged from 4.39 to 4.01, with only “leadership” at 3.00, (n=136) and “self awareness” at 2.67, (n=136) outside of that range. For the data collected from the students on “level of opportunity” and “academic preparation” ratings were provided on a 1 (lowest)-5 (highest) lickert scale. The ratings ranged from 3.68, (n=77) for “innovation” to 4.30, (n=170) for “learning integration”.

ACTION REVIEW TIMELINE

The following actions were taken as a response to the data from the previous report, the current data from the co-op/placement feedback, and input from the industry advisory board members over the last year. These decisions were unanimously supported by the packaging science faculty and the industry advisory board.

The elementary calculus option of math was eliminated. This option will still be accepted, but due to the few students that utilize this option it does not need to be listed on the program sheet. Calculus for Engineering Technology will replace the previous calculus offerings.

Elimination of the Data Analysis lab because it is no longer offered. It is combed with Data Analysis II which was changed from an option (choose 2 of 3 classes) to a requirement. Microbiology was also changed to a required course from an option (choose 2 of 3 options).

The technical electives were changed from 10 to 12 credits. One of these credits came from the elimination of freshman seminar. The information from freshman seminar was integrated into the introductory principles of packaging course. The second additional credit is one added to the program. This changes the program from 189 to 190. This addition will not impact students negatively but instead aid them. Because the previous program required 10 technical elective credits it was challenging to find courses to meet this requirement (few two credit technical electives) thus forcing students to take more credits than required by the program.

Technical electives most relevant to the industry trends and most representative of necessary occupations skills and knowledge were identified and are quarterly presented to the students as registration options. These options were identified through the industry advisory board.

RECOMMENDATIONS

In the areas educational objectives and program outcomes related to post graduate elements an alternate method of data collection needs to be considered. The current post graduate survey has very poor response rates. This situation is also encountered by the placement office as they attempt to collect post graduate, full time employment data. An improvement in the post graduate data collection method will result in a more accurate assessment of specifically the program educational objectives:

- Possess the capacity to successfully transition within a broad occupational cluster of the packaging industry including various packaging industry groups (supplier, service and packaging end user) and product market segments (food, cosmetic, pharmaceuticals, consumer goods, etc.).
- Continually assimilating additional professional skills, knowledge and technical expertise.

Improvement of data collection from this highly relevant population will provide relevant information and decision making criteria for future continuous improvement efforts.

Assessment Matrix for Packaging Science, Program Educational Objectives 2006-2007

Packaging Science **Program Educational Objectives**	**Assessment Methods** **(Data Sources)**	**Metrics**	**Frequency and** **Assessment Responsibility**	**Assessment Results,** **Recommendations and** **Action taken**
Obtain gainful employment in the packaging industry.	Co-op Report Graduate survey	Number and percentage of students obtaining co-op positions, and industry segment Number and percentage of graduates employed, and industry segment.	Quarterly / Program Chair Yearly / Program Chair	**State of placement is outstanding.** **No action needed.**
Possess the capacity to successfully transition within a broad occupational cluster of the packaging industry including various industry groups (supplier, service and packaging end user) and product market segments (food, cosmetic, pharmaceuticals, consumer goods, etc.).	Co-op Report Graduate survey Follow up Graduate survey	Industry segment and group of employment Industry segment and group of employment every 3 years post graduation	Yearly / Program Chair Every 3 Years post graduation / Program Chair	**Placement reports indicate placement in broad range of occupational clusters.** **No action needed.**

Continually assimilate additional professional skills, knowledge and technical expertise.	Graduate survey	Position Title change Increase in technical or managerial responsibilities Self reported growth and development	Every 3 Years post graduation / Program Chair	**Insufficient data received to assess this objective.** **Recommend reassessment of data collection method. Currently poor response.**
Individually, on a team, or as a team leader perform as value contributors, change agents and innovators within organizations and the field of packaging.	Graduate survey	Self reported industry valued skill sets, organization contributions and innovations.	Every 3 Years post graduation / Program Chair	**Insufficient data received to assess this objective.** **Recommend reassessment of data collection method. Currently poor response.**

Assessment Matrix for Packaging Science, Program Outcomes 2006-2007

Packaging Science **Program Outcomes**	**Assessment Methods** **(Data Sources)**	**Metrics**	**Frequency and** **Assessment Responsibility**	**Assessment Results,** **Recommendations and** **Action taken**
Possess entry level mastery of the knowledge, techniques, skills and modern technology of the discipline to function in a packaging organization.	Co-op Report	Employer Feedback Student Feedback	Quarterly / Program Chair	**Co-op and placement reports indicate sufficient accomplishment of this outcome.**
	Capstone Rubric	Elements related to the knowledge, skills and technology of packaging	Quarterly / classmates, faculty, industry professionals, tabulated by Program Chair	**Some program coursework modification were made in response to new trends and technology.**

Design, develop and implement effective and efficient new packaging systems, as well as improve the performance of existing packaging systems.	Co-op Report Capstone Rubric	Employer Feedback Student Feedback Elements related to packaging design, development and implementation	Yearly / Program Chair Quarterly / classmates, faculty, industry professionals, tabulated by Program Chair.	**Co-op and placement reports indicate sufficient accomplishment of this outcome.** **Some program coursework modification were made in response to new trends and technology.**
Communicate effectively with the multiple internal and external parties involved in the organizational packaging function and understand the roles and interrelationships relative to the packaging function.	Co-op Survey Capstone Rubric	Employer Feedback Student Feedback Elements related to communication and relationship understanding	Every 3 Years post graduation / Program Chair Quarterly / classmates, faculty, industry professionals, tabulated by Program Chair	**Co-op and placement reports indicate sufficient accomplishment of this outcome.** **Some program coursework modification were made in response to new trends and technology.**
Maintain involvement with professional packaging organizations and trade associations for the purpose of promote growth and development as packaging professionals.	Student Organization Membership list IoPP National	Number and percentage of student members Number and percentage of students who remain IoPP members after graduation	Quarterly / Program Chair Quarterly / Program Chair	**RIT IoPP Student Chapter has a a75% student participation rate.** **No action needed at this time.**

Executive Summary – Continuous Improvement Report:

Packaging Science (Graduate Program)
Traditional and Executive Leader

With the rapid advancement in new packaging materials and containers, packaging professionals face the challenge of staying current in this dynamic field. Our program continues to provide an opportunity to learn the skills necessary to enter the workforce apply new knowledge on the job as a change agent, prepare for career advancement or career change.

RIT's master's degree programs in packaging science are designed to enhance employment opportunities of the newly graduated as well as seasoned professionals in the multi-billion dollar packaging industry.

Traditional

In our graduate program students examine the procedures for developing new, improved packages; test the physical and chemical properties of materials; and learn the economic and legal aspects of packaging and current application of computer-based technology. Structural design is learned through making and testing sample containers in the department's advanced testing facilities. Programs reflect departmental awareness of the energy, environmental, ecological impacts of packaging technical development, and our faculty members have long been proponents of rational package design.

Environmental issues have become an over-arching presence and bring with them an urgency to respond with short term and long-term content remedies. Since the last summary the graduate program has responded by continuing to infuse the curriculum with relevancy and currency on environmental topics that are coming fast and furious.

Graduates from the traditional program are recruited to work in areas such as package design and development, testing, production, research, marketing, new business development, sales, technical services, purchasing, and quality assurance.

Data were obtained from the co-op and placement reports. Employer feedback provides us with the trends they are seeing in the workplace. These observations provide direct input to continuous course development.

Executive Leader Masters Degree Program

Corporate-Sponsored Individuals:

The original blended program consisted of four courses during two 2-week summer sessions, four courses on line and an independent research project. For the prepared and focused individual this program can be completed within fourteen months. It is designed

to enhance the career development of individuals who have had at least five years of work experience related to the packaging industry.

Industry practitioners had expressed an interest in a blended format to facilitate their commitments to life-long learning, outstanding job performance and quality family time without excessive absences and travel commitments. This blended format provided individuals an opportunity to pursue professional development by optimizing the amount of time needed to travel and minimizing lengthy absences from work and home. Colleagues had an opportunity to develop face-to-face relationships with other members of their cohort and the instructors. The trend for a more streamlined delivery and up-to-date learning was addressed by the new format.

The online portion of the program was "book ended" with the on-campus aspects of the program. Course offerings could be completed within 14 months.

Since the inception of the "book-ended" program delivery the Executive Leader program has further evolved to fit the fluid needs of today's industry professionals. The interest in on-campus delivery remains a priority but has been proposed to limit duration to two courses in two weeks. The remaining six courses will be offered in an online format. Program duration will be extended two quarters as colleagues prefer to take one online course per quarter. The proposal is a work in process.

Corporate-Sponsored Cohorts

In the summer of 2006 a new *Corporate Model for International Companie*s was introduced and offered separately from the already existing executive leader program. This model was created around a company request for an executive leader program specially designed to provide a venue for a select cohort of world-wide employees. Course content included a focus on case studies and issues central to the company.

Challenges – Traditional and Executive Leader programs

The major challenge common to both programs has been for colleagues to complete the graduate program in a timely fashion. Although the Institute allows 7 years from the first course applied to the graduate plan of study, packaging science and technology evolves so quickly it is possible to become dated in much less time. Approximately two requests for extension are in process each year. Requests for extension take an inordinate amount of time to process.

After a review of our peer competitors it was noted MSU offers its graduate students two options; Plan A is a thesis option of 6-8 semester credits; Plan B is a non-thesis option whereby students register for a 2 credit Master's Project. Clemson also offers a thesis and non-thesis option. The thesis option is 6 semester credits; the non-thesis option is comprised of coursework only.

The strength of the graduate program in Packaging Science at RIT lies in its applied, practical approach to the exploration and proposed resolution of problems that are identified by students, faculty and/or industry. To modify the thesis requirement will bring the Packaging Science graduate deliverable in line with its peer competitors as well as other graduate programs at RIT where capstone projects, graduate projects and thesis credits from 4-12 with most programs requiring less than 8 credits.

The option to choose between a thesis or a project gives students the freedom to select the type of graduate-level research they intend to conduct in order to earn a Master of Science degree in Packaging Science. A project and thesis are both significant undertakings. They are viable and credible options for meeting degree requirements. Although similar in yielding quality deliverables incorporating the combined efforts of research, analysis, synthesizing, comparing information, writing and presenting a position on a proposed problem or hypothesis, there are significant differences.

A proposal for a program change has been submitted for review by the CAST curriculum committee and the Dean of CAST. It is anticipated that a four-credit option will provide an opportunity for timely completion of the program for both full-time and Exec Leader students. Undoubtedly, the tracking of this data will take some time to truly show its success.

Outcomes Assessment Report (also see outcome results tables below)

Outcome #1 – Thesis topic currency and application is measured by the number of topic revisions before topic approval

Performance criteria – the number of proposal (topic) revisions
Strategy – Research methods course; faculty/student gatherings to discuss research strategies and current topics; special meetings are arranged with the topic specialist in the library
Assessment methods – Document number of proposal attempts and proposals approved by the thesis committee members and by XL colleagues' direct reports (XL); ranking of topic currency and relevance by Industrial Advisory Board (IAB)
Metrics – final approval by faculty to involve thesis committee; approval by direct report (XL)
Individual responsible for assessment - graduate program chair
Assessment frequency – ongoing in each quarter; committee and employer approval; IAB ranking bi-annually
Report to whom/when – periodically during the quarter and/or academic year to program coordinators, faculty, thesis committee members and IAB
Recommendations – multiple proposal revisions require additional advising session with graduate program coordinator and committee member topic specialist; proposals rankings will be disseminated to faculty, and committee members to better identify current topics
Types of assessment action – the number of proposals submitted where measured against the number of thesis proposals accepted

Results for 2007-9

Assessment action – The date shows that industry sponsored executive leader students are able to identify a topic and successfully meet the proposal expectation than traditional full time graduate students. Historically, graduate students complete classes, co-op and then acquire full time employment within a short period of time, typically less than two years. Once they leave campus the success rate for proposal and thesis completion is challenged by other life priorities. Topic identification and successful proposal defense will be a requirement for passing the Research Methods course which will be taken by the second quarter of registered classes. It is anticipated an imposed deadline will be the driver for early topic identification and subsequent proposal and thesis work.

Outcome #2 - student's ability to apply classroom knowledge on co-op

Performance criteria – evaluation of

- Quality of work (accuracy, thoroughness)
- Competence: (applies experience and training)
- Ability to learn: (grasps/retains new skills and concepts)
- Initiative: (originates ideas and seeks new responsibilities)

Strategy – effective communication; team projects; supplement creative process with access to industry practitioners as mentors

Assessment methods – evaluations by faculty and mentors, document employer evaluations per co-op experience

Metrics – academic and employment rating scales

Individual responsible for assessment – graduate program chair and faculty; employers

Assessment frequency – ongoing each quarter

Report to whom/when - periodically during the quarter and/or academic year to program coordinators, faculty and thesis committee members

Recommendations – use employer evaluations and faculty/mentor evaluations as part of constant improvement strategy; use to identify current and future skill sets expected by industry and make recommendations to the faculty and instructors for content changes as needed.

Types of assessment action – Although co-op is not required for graduate students a number of students take advantage of the opportunity to gain industry experience. Co-op evaluations ranged from 2005-2009. With a range of scores from 5 (excellent) to 1 (poor) the majority (45%) of the scores were in the mid-range rating of "3" and 40% were in the slightly better rating of "4". Two low rankings of particular interest were "initiative" and "personal relations". Reports will be made available to the faculty and discussions will follow on a strategy to address these issues. . "Leadership" was reported at 3.5 prior to 2007 and has dropped to "3" since that time

Assessment action – Faculty will be advised to promote more project leadership and to encourage and reward attempts at facilitating innovation and change.

Results for 2007-2009
Outcome #3 – Timely completion of graduate program
Performance criteria – program completion within 3 years of start date
Strategy – offering two options: a 4 credit project and an 8 credit thesis
Assessment methods – Document number of proposals that result in program completion and certification and compare them to the present data.
Metrics – number of graduate program equivalent requests and program certifications
Individual responsible for assessment – Graduate program coordinator
Assessment frequency – annually
Report to whom/when – annually to faculty, thesis committee members and IAB

Report for 2007-2009
Recommendations – The initial data shows the industry-sponsored cohorts have a higher completion rate than the industry-sponsored individuals or full-time grade students.
Types of assessment – Track and compare completion timeframes; track the three different program and compare.
Assessment action – TBD

PEO #1. Thesis topic currency and application
Number of proposals submitted/accepted

Program	Start Date	Program Incomplete	Proposals Accepted	% Accepted to date
XL	20014	2	1	50%
	20024	2	1	50%
	20034	4	1	25%
	20044	4	1	25%
	20054	1	0	0
	20064	5	0	0
Total		18		
ColPal	20054	2	0	0
	20064	1	0	0
	20074	4	0	0
Total		7		
Full-time	20021	2	0	0
	20031	3	0	0
	20041	3	1	33%
	20051	2	0	0
	20061	5	1	20%
	20071	5	0	0
	20081	11	0	0
Total		29		

PEO #2. Ability to apply classroom knowledge
Employer evaluations (5-Excellent; 1-Poor)
Number of co-op students = 11

Parameters		5	4	3	2	1 or NA
Quality of work		3 (27%)	4 (36%)	3 (27%)		
Quantity of work			5 (45%)	5 (45%)	1 (<1%)	
Competence		1 (<1%)	6 (55%)	3(27%)	1 (<!%)	
Ability to learn		3 (27%)	4(36%)	3 (27%)	1 (1<%)	
Initiative		2 (18%)	4 (36%)	5 (45%)		NA
Reliability		2 (18%)	5 (45%)	2 (18%)	1 (<1%)	
Judgment		2 (18%)	4 (36%)	4 (36%)	1 (<1%)	
Attitude		4 (36%)	4 (36%)	3 (36%)		
Personal relations		3 (36%)	2 (18%)	6 (55%)		
Communication skills		1 (<1%)	5 (45%)	4 (36%)		
Self-awareness		2 (18%)	4 (36%)	4 (36%)	1 (<1%)	
Leadership			2 (18%)	3 (36%)		NA
		19%	**40%**	**45%**	6%	

PEO #3. Timely completion of graduate program
Tracking program completion progress

Program	Start Date	No. stds	Program Completed w/i 4 yrs		Program still active	End Date	Ext'n Req
XL	20014	3	1 (33%)		2	20084	
	20024	4	1 (25%)		2	20094	
	20034	4	0 (0%)		4	20104	
	20044	5	1 (20%)		4	20114	
	20054	1	0 (0%)		1	20124	
	20064	5	0 (0%)		5	20134	
	20074	3	0 (NA)		3	20144	
Total		26	3		21		
ColPal	20054	6	4 (67%)		2	20124	
	20064	6	5 (83%)		1	20134	
	20074	4	0 (NA)		4	20144	
Total		16			7		
Full-time	20021	3	1 (33%)		2	20091	
	20031	4	1 (20%)		3	20101	
	20041	4	1 (20%)		3	20111	
	20051	3	1 (33%)		2	20121	
	20061	7	2 (29%)		5	20131	
	20071	5	0 (0%)		5	20141	
	20081	11	0 (NA)		11	20151	
Total		34			29		

Middle States Outcomes Assessment Report (20061-20074)

Manufacturing and Mechanical Systems Integration (Graduate)
Prepared By: Dr. S. Manian Ramkumar and Professor Dan Johnson

Executive Summary

The MS in Manufacturing and Mechanical Systems Integration is a multidisciplinary degree offered by the Department of Manufacturing and Mechanical Engineering Technology in collaboration with the College of Computing and Information Sciences, the College of Business, and the College of Engineering. This advanced degree is for people with the desire to understand the many facets of product development, automated manufacturing systems and electronics packaging. The program is designed for individuals who wish to achieve competence in the effective integration of the computing, design, manufacturing, quality and management functions within a manufacturing enterprise. Students take core courses and then elect a concentration in product development, automated manufacturing, software development, electronics packaging, management, or quality. The uniqueness of this program is in its technical concentrations and also its emphasis on project based hands-on education.

The review of co-op data (Figure 1 and 2) attached to the end of the report, both from the students and the employer, indicate that the program is preparing students adequately for the workforce. A rating of 4 or higher is considered better and areas of improvement are identified by ratings less than a 4. The following are specific points of interest.

1. The level of opportunity provided to students by the employer, during the 2006 and 2007 academic year remained the same or decreased in many instances.

2. The three areas for levels of opportunity that showed an increase from academic year 2006 to 2007 were the student's ability to design systems, the use of modern techniques and tools and global awareness.

3. The academic preparation to address the student's ability to design systems was increased appropriately but remained same with regards to the use of modern techniques and tools and global awareness. This academic preparation using modern techniques and tools is being addressed by the upgrades that are being implemented to the laboratory hardware through capital funding from RIT.

4. The level of opportunity to work effectively with diverse individuals and team members and to exhibit ethical and professional responsibility was higher in the industry than the level of academic preparation. The department is continuing to address this by attracting more women and minority candidates from within the B.S. program and internationally.

5. Even though the student report indicates that the academic preparation (2006 to 2007) was slightly lower in the areas of communication, the employer report indicates a definite improvement in this area over the same period. Based on the findings in the employer report for 2005 academic year, the main item for continuous improvement for 2006 was the area of communication. International students, who entered the program, were required to pass the Michigan Test. Based on the results and deficiencies, students were advised to register for appropriate English language courses.

6. During this period, the MMSI graduate students also served as primary or secondary authors in many peer reviewed journal and conference papers and also presented their work at conferences with faculty scholars.

7. The employer evaluation of the students (Figure 2) indicates a very positive improvement overall from 2006 to 2007 academic year.

Program Objectives or Program educational Objectives

1. To provide a thorough theoretical and practical understanding of product design, process development and the management of automated production systems.

2. To educate professionals who will provide leadership support for product design, process development and the management of automated production systems.

3. To prepare future managers who will bring a comprehensive understanding of the quality tools necessary for successful product design, process development and the management of automated production systems.

4. To prepare professionals who understand team dynamics and management, act as change agents, demonstrate a professional work ethic, show commitment to continuous learning and contribute to the body of knowledge in their chosen field.

Program Outcomes

- Graduates from the MS program in MMSI will demonstrate a thorough understanding of:
    5. Manufacturing and assembly systems and the concept of lean manufacturing and its implementation.

6. Accounting and its role in a manufacturing environment
7. Project management principles, techniques and tools
8. Quality engineering and the tools necessary to create a quality organization
9. The subject matter from their chosen area of concentration

- Graduates from the MS program in MMSI will also demonstrate:

10. The ability to formulate, conduct, analyze and interpret experiments and apply experimental results to improve processes.
11. The ability to function effectively on teams.
12. The ability to identify, analyze and solve technical problems.
13. Effective communication.
14. Competence in the use of the computer as a problem solving and communications tool.

Assessment Planning Matrix MS in Manufacturing and Mechanical Systems Integration (MMSI)							
Program Outcomes	**Strategy**	**Assessment Methods**	**When Assessed?**	**Who is responsible for assessment?**	**Reported To Whom and When?**	**Recommendations**	**Actions**
A. Graduates from the MS program in MMSI will demonstrate a thorough understanding of:							
1. Manufacturing and assembly systems and the concept of lean manufacturing and its implementation.	Courses – 0617-850 or 0303-726 Relevant Capstone Project	Grades	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Satisfactory Student Performance and Grades Capstone Projects completed	None Monitor Continuously
2. Accounting and its role in a manufacturing environment	Course – 0101-794	Grades	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Satisfactory Student Performance and Grades	None Monitor Continuously
3. Project management principles, techniques and tools	Course – 0106-744 Capstone Project Co-op	Grades and Co-op Reports	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program	Satisfactory Student Performance and Grades Co-op ratings	None Monitor Continuously

					committee	satisfactory	
4. Quality engineering and the tools necessary to create a quality organization	Course – 0307-782	Grades	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Satisfactory Student Performance and Grades	None Monitor Continuously
5. The subject matter from their chosen area of concentration	Courses – From each concentration area Capstone Project/Thesis Co-op	Grades, Co-op Reports and Thesis defense	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Satisfactory Student Performance and Grades Co-op ratings satisfactory	None Monitor Continuously
B. Graduates from the MS program in MMSI will also demonstrate:							
15. The ability to formulate, conduct, analyze and interpret experiments and apply experimental results to improve processes.	Co-op Capstone Project Thesis	Co-op reports, capstone project grade and thesis defense	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Satisfactory Student Performance and Grades Co-op ratings satisfactory	None Monitor Continuously
16. The ability to function effectively on teams.	Co-op Course Projects	Co-op reports and course grades	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS	Co-op ratings satisfactory	None Monitor

					Program committee		Continuously
17. The ability to identify, analyze and solve technical problems.	Co-op	Co-op reports	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Co-op ratings satisfactory	None Monitor Continuously
18. Effective communication.	Co-op	Co-op reports	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Co-op ratings have shown improvement in student performance	Implement strategy to test skills of foreign and native students and identify areas of English Language Training
19. Competence in the use of the computer as a problem solving and communications tool.	Co-op Course Projects/Lab activities	Co-op reports and course grades	Yearly	Graduate Program Advisor	Reported Annually to the Department Head and MS Program committee	Co-op ratings satisfactory	None Monitor Continuously

Appendix D—Center for Multidisciplinary Studies

Assessment Report

Executive Summary

Assessment Initiatives Completed or Underway

2008 Alumni Survey: Since the last Middle States report, the Center for Multidisciplinary Studies (CMS) has conducted its third bi-annual survey of its alumni. The Alumni Survey data has been collected and compiled, but has not been fully cleaned or analyzed. Analyzing the data has been delayed by insufficient staff and administrative support. Assessment and curriculum were managed by Associate Director, Mary Boyd. Mary has transitioned out of the Associate Director role and no replacement has been identified or approved by the Dean's Office. I have asked Michelle Firnstein, an advisor in CMS, to undertake the completion of the Alumni Survey analysis.

Multidisciplinary Life Class is Fully Operational: In 2004, the faculty of CMS recognized the need for a capstone course in order to fully realize the program outcomes defined in our Middle States Assessment plan. The course has now been offered every quarter since 2004-3. A full-time faculty member has been assigned to the course since 2006-1 and he has created a well defined structure and approach to the course. Therefore, we now have two years of student evaluations and faculty assessment of the class. During Spring Quarter (2008-3) the CMS faculty are meeting to discuss the outcomes of the course in light of the new "innovation" goals for courses at RIT.

Evaluation of Academic Contracts: During Fall Quarter (2008-1) CMS faculty and advisors began reviewing the policy of granting "academic contracts" to transferring students who have poor grade point averages or who are entering CMS off of suspension from another department. This practice allows the student to enroll in courses on the condition they regularly meet with their advisor and attain minimum quarterly grade point averages (GPA). Our goal is to determine whether this practice results in an overall improvement in the GPA of students who are placed on contracts. We believe student participation in their program design through the academic contracts results in improved academic performance. We have collected baseline data and will continue to collect data on the change in student GPA and attainment subsequent to being on academic contract.

Math Assessment: Throughout 2008-2009 CMS has been engaged in an evaluation of barriers to math attainment among adult learners. This evaluation is being done under the auspices of the Perkins VATEA grant program. The first phase of a literature review and draft of a survey instrument has been completed. The survey will be conducted during Spring Quarter.

Areas of Concern/Attention

Assessment Resources: Program assessment takes time and money. Mary Boyd's transition out of the Associate Director role has left a gap in the Center's assessment resources. There is only one tenured faculty in CMS who could assume the role—this person is not interested in assuming the Associate Director's position. Unfortunately, no new incremental resources were requested by the Dean to support the loss of the Associate Director. At this point program assessment is being done with minimal supporting resources.

Prior Learning Assessment: CMS has a history of awarding credit by experience, credit by exam, and other forms of prior learning assessment. In 2007 we changed our approach to prior learning assessment based on a model recommended by The Council for Adult and Experiential Learning (CAEL). The process places more emphasis on learning outcomes assessment and requires the student to actively participate. This process should be evaluated during 2009.

Graduate Program and Graduate Certificates: Both the graduate MS in Professional Studies, and the Advanced Certificate in Project Management should be evaluated during 2009. A survey of graduates and employers in both programs should be conducted.

NTID Transfers: Over the past 3 years CMS has experienced a significant increase in students transferring from NTID. Most of these students enter into the program via articulation agreements allowing them to take concentrations in Lab Science (in collaboration with the College of Science) or in Management (in collaboration with the College of Business). We have worked closely with NTID to track the permanent placement of these students and the initial indication is that they are successful in the workforce. However, we need to establish a system for regularly collecting data from NTID and integrating this information with CMS data.

Program Overview

Unlike traditional programs, where curriculum-specific outcomes are defined *a priori* by the faculty, the Applied Arts and Science and MS in Profession Studies degrees engage learners in the design of their curriculum and the specification of the learning outcomes. This is achieved through a process that includes:

1. Individual advising with a professional academic and career advisor.

2. The development of an individualized Plan of Study in conjunction with professional advisors.

3. Faculty reviewing and mentoring to validate the academic and professional viability of the proposed Plan of Study.

4. Synthesis, reflection, and transformation by the student through course work and other learning experiences.

5. Longitudinal validation and realignment of coursework with evolving personal and career objectives.

6. Oral presentation of the skills and knowledge developed through completion of course work identified in the individualized Plan of Study; completion of a Capstone Project conducted in the required course, *Multidisciplinary Life*, at the undergraduate level and Capstone Project at the graduate level.

In this process, learners are assumed to possess a mature level of self-awareness and the capability to be engaged in the design of their education. As a result, individual learning outcomes are unique and individualized, while program outcomes are necessarily global and more general in nature. Validation of the individual and programmatic outcomes occurs at 5 distinct points in the student's progression through the program:

1. Self reflection and articulation of goals

2. The expression of goals in a Plan of Study

3. The completion of individual courses

4. The certification of the credential

5. The application of the knowledge and learning in work and life.

Applied Arts and Sciences (Undergraduate)

Undergraduate Program Outcomes, Strategies, and Evidence

The basic structure of the degree, combined with student-centered processes and validation methods, ensures the following programmatic outcomes.

Outcome: ***Students possess the ability to synthesize and apply knowledge across multiple disciplines***

Strategies:

- Articulation of personal strengths and weaknesses and how those would be transformed through multidisciplinary study.
- Student engagement in the design and selection of professional concentrations from a minimum of 2 disciplines.

Criteria/Metrics:

- Successful completion of coursework in the multidisciplinary professional concentrations

- Design and completion of a multidisciplinary Capstone Project

Evidence:

- In 2005, CMS certified **xx** students to receive the BS degree; in 2006, CMS certified **xx** students to receive the BS degree; and in 2007, CMS certified **xx** students to receive the BS degree. These students reached their goal of graduation by completing a personal Statement of Educational and Career Objectives (SECO); preparing, in conjunction with their professional advisor, a customized Plan of Study; completing a minimum of two professional concentrations of at least 20 credit hours each; and fulfilling RIT's requirements for liberal arts, math, and science courses (general education courses).
- In 2007, 10 candidates for the BS in Applied Arts and Science received Honors, 18received High Honors, and 10received Highest Honors.
- In the SECO document, students describe how the multidisciplinary degree, which they have designed, relates to their interests and future goals and how it will assist them in achieving those goals.
- Students' customized Plans of Study provide a roadmap for completing the required 90 credit hours of general education plus an additional 90 hours spread across two to four professional concentrations and electives. Currently the top ten most common concentrations are: Project Management, Psychology, Information Technology, Management, Quality Management, Computer Graphics, Organizational Change & Leadership, Human Resources, Communications, Criminal Justice Studies.
- Beginning in 20043, senior candidates for the BS in Applied Arts and Science were required to take a new undergraduate capstone course, *Multidisciplinary Life (MDL)*. The intent of MDL is to help students synthesize and integrate the multidisciplinary perspectives, skills, and methods they have learned and developed in the process of taking courses in the BS in Applied Arts and Science. Drawing on their personal journals, in-class discussions, case studies, professional concentrations, and lifelong learning statements, the students' Capstone Projects, in the form of oral presentations, reported on the outcome of their multidisciplinary studies.

Outcome: *Students possess the ability to reflect on their personal and professional goals and to seek lifelong learning options to support these goals*

Strategies:

- A new course to assist students in the process of reflecting on their career and personal goals and formulating a plan for lifelong learning to attain those goals.
- Articulation of personal strengths and weaknesses and how those would be transformed through current and future learning.
- Personalized career and professional advising.

Criteria/Metrics:

- Evidence of lifelong learning including training, certifications
- The percent of students progressing through the various applied arts and science credentials.

Evidence:

- A new course, *Multidisciplinary Life*, was developed and taught for the first time in 20043. This course is required for all candidates for the BS in Applied Arts and Science. Since then it has been offered quarterly, in both traditional and on-line formats, with an average of 23 students per section.
- In a 2005 survey of 215 of our graduates, we found that 87% are employed either full or part time, 63.3% have worked in a field related to their CMS degree, and 54.4% agree that their CMS degree assisted them in pursuing a career choice..
- Our alumni belong to over 80 professional organizations, such as American Academy of Professional Coders, American Society for Quality (ASQ), Healthcare Financial Management Association, National Registry of Interpreters for the Deaf, New York State Teacher's Association, and Society for Human Resource Management (SHRM).
- The age range of alumni surveyed (18 to 61) indicates that CMS graduates are involved in lifelong learning.

Outcome: *Students understand the value and application of the arts, humanities, and social and behavioral sciences in their personal and professional lives and in contemporary society.*

Strategies:

- Student's prior learning and his or her professional and personal experience are considered in the design of the liberal arts curriculum. Thus, the student's individualized liberal arts curriculum is informed by his or her goals, strengths, and deficiencies.

Criteria/Metrics:

- Successful completion of the liberal arts requirements.
- Successful completion of the institutional writing requirement.
- Integration and application of humanities and social and behavioral sciences in student's synthesis and application of course work.

Evidence:

- In 2005, **xx** students were certified to receive their BS in Applied Arts and Science, having successfully completed their liberal arts requirements. **Xxx** students were certified for the BS degree in 2006. **Xxx** students were certified for the BS degree in 2007.
- After considering their prior learning, professional experience, and personal experience, CMS students chose liberal arts curricula that reflected their goals, strengths, and dependencies; students selected courses such as *Intro to Psychology* to accompany a concentration in Project Management; *Foundations of Sociology* to accompany a concentration in Social Welfare; and *Professional Report Writing* to accompany a concentration in Telecommunications.

Outcome: *Students understand the value and application of math and science in their personal and professional lives and in contemporary society.*

Strategies:

- Student's prior learning and his or her professional and personal experience are considered in the design of the math and science curriculum. Thus, the student's individualized math and science curriculum is informed by the student's goals, strengths, and deficiencies.

Criteria/Metrics:

- Successful completion of the degree requirements for math and science.
- Application of math and science in the student's professional

  concentrations.**Evidence:**

- In 2005, **xxx** students were certified to receive their BS in Applied Arts and Science, having successfully completed their math and science requirements. **Xxx** students were certified for the BS degree in 2006. **Xxx** students were certified for the BS degree in 2007.
- After considering their prior learning, professional experience, and personal experience, CMS students chose math/science curricula that reflected their goals, strengths, and dependencies; students selected courses such as *Human Biology* to accompany a concentration in Disaster & Emergency Management; *Tech Math* to accompany a concentration in Industrial Instrumentation Technology; and *Science, Technology, and Values* to accompany a concentration in Applied Computer Technology.

Professional Studies (Graduate)

Graduate Program Outcomes, Strategies, and Evidence

The basic structure of the degree, combined with student-centered processes and validation methods, ensures the following programmatic outcomes.

Outcome: Students possess the ability to synthesize and apply knowledge across multiple disciplines.

Strategies:

- Articulation of personal strengths and weaknesses and how those would be transformed through integrated, multidisciplinary professional studies.
- Student engagement in the design and selection of two to three professional concentrations drawn from existing RIT graduate programs.

Criteria/Metrics:

- Successful completion of coursework in the cross disciplinary professional concentrations
- Design and completion of a cross disciplinary Capstone Project

Evidence:

- In 2005, CMS certified **xxx** students to receive the MS degree; in 2006, CMS certified **xxx** students to receive the MS degree; and in 2007, CMS certified

xxx students to receive the MS degree. These students reached their goal of graduation by completing a personal Statement of Educational and Career Objectives (SECO); preparing, in conjunction with their professional advisor and the Director of the Graduate Program, a customized Plan of Study; and completing a minimum of two professional concentrations –the first concentration must be a minimum of 16 credit hours drawn from a single graduate program; the second and third (optional) concentrations must be a minimum of 12 credit hours each.

- "The average cumulative GPA of the CMS graduate student enrolled in 2008-1 was 3.39. Students individually prepare Graduate Review Committee (GRC) proposals that clearly identify concentrations of courses that they intend to study. The proposal includes a well-researched and referenced Statement of Educational and Career Objectives that clearly identifies key issues, current challenges, opportunities, and the rationale for their proposed Plan of Study, which is also part of the proposal. This document serves to link each student's background with his or her personal and professional aspirations by addressing questions such as:
  1. What are your broad educational and career objectives?
  2. What do you know and what do you need to learn?
  3. What skills have you acquired from the jobs or positions you've held?
  4. What will be your next job?
  5. What are the themes in your Plan of Study?
  6. What is the significance of each course in your individual concentrations, and of your electives, to the overall theme of your Plan of Study?
  7. Why have you chosen the MS in Professional Studies program?
- Students' customized Plans of Study provide a roadmap for completing the required 48 credit hours of education, which includes two to three professional concentrations, *Context and Trends*, the *Capstone Project*, and electives. Typical professional concentrations would cover areas such as Marketing, Project Management, Technical Information Design, Communication & Media, Instructional Technology, and General Management.
- Candidates for the MS in Professional Studies are required to take two courses: *Context and Trends* and *Capstone Project*.
- In *Context and Trends* students gain a variety of conceptual and analytical skills that will be useful in preparing their Plans of Study. Students explore important trends that will affect their choice of concentrations and ultimately their careers. And it is in this required course that students create their GRC proposal that consists of an Executive Summary, Statement of Educational and Career Objectives, Plan of Study, Preliminary Capstone Project Description, References Cited, and an updated Resume.
- For their Capstone Project and prior to registering for course credit, students are required to submit a detailed proposal that identifies specifically:
  1. Background statement about a real world problem relating to their unique degree focus;
  2. How they will contribute to solving this problem;
  3. A subject matter expert who is able to serve as a Capstone Project mentor;

4. Anticipated project results;
5. A plan of work, timeline, budget, and explanation for overcoming potential challenges;
6. Reference list (of sources cited in background statement).

Outcome: *Students possess the ability to reflect on their personal and professional goals and to seek lifelong learning options to support these goals*

Strategies:

- Articulation of personal strengths and weaknesses and how those would be transformed through current and future learning.
- Personalized career and professional advising.

Criteria/Metrics:

- Evidence of lifelong learning including training, certifications, percent of students continuing through the various applied arts and science credentials.

Evidence:

- In the 2005 bi-annual survey of 215 of our graduates, we found that 87% are employed either full or part time, 63.3% have worked in a field related to their CMS degree, and 54.4% agree that their CMS degree assisted them in pursuing a career choice. The next bi-annual survey of CMS graduates will be completed in Winter Quarter of 2008.
- According to the 2005 survey, our alumni belong to over 80 professional organizations, such as American Academy of Professional Coders, American Society for Quality (ASQ), Healthcare Financial Management Association, National Registry of Interpreters for the Deaf, New York State Teacher's Association, and Society for Human Resource Management (SHRM).
- The age range of alumni surveyed (18 to 61) indicates that CMS graduates are involved in lifelong learning.
- The CMS National Advisory Board, established in the fall of 2004, provides guidance in the development of relevant curricula and input to the CMS career and advising processes.

Closing the Loop

Assessment Frequency: There are two main assessment instruments used to collect external data on student attainment: 1. The bi-annual alumni survey; 2. The regular meeting of the CMS Advisory Board. The alumni survey has been completed but the data has not been fully analyzed for this period of assessment. The members of CMS Advisory Board are renewing the terms this year and will be hosted at RIT in Fall 2009.

External and Internal review:

Undergraduate plans of study are reviewed and approved by the Applied Arts and Science Committee—a committee comprised of CMS faculty, a faculty member from NTID, and CMS Advisors.

Graduate plans of study are reviewed and approved by the Professional Studies Graduate committee—a committee comprised of faculty from across RIT including representation from 5 programs in CAST, the Saunders College of Business, the Golisano College of Computing and Information Sciences, and with input from all of RIT's colleges.

Graduate capstones require an external sponsor and are reviewed by external participants from the sponsoring organization.

The CMS Advisory Board meets every two years.

Recommendations: CMS must formalize our assessment processes. However, we do not have a designated person or the resources to hire a person to support this work. There are no new specific recommendations other than those included in the "Areas of Concern/Attention" outlined on Page 2 of this report.

Actions Taken: See "Areas of Concern/Attention" outlined on Page 2 of this report.

Department of Civil Engineering Technology, Environmental Management and Safety
Continuous Improvement Progress Reports 2007-08
Executive Summary:

The continuous improvement reports for the three undergraduate and two graduate programs in the department of civil engineering technology, environmental management and safety are attached. The programs are:

1. Civil Engineering Technology (BS)
2. Environmental Management and Technology (BS)
3. Safety Technology (BS)
4. Environmental Health and Safety Management (MS)
5. Facility Management (MS)

In general, we have closed the loop on a majority of the action items from last year's assessment cycle, and the individual program reports indicate what has been done to close the loop on the action items. Those action items for which no action were taken in 07-08 have been carried forward to 2008-09. For the Facility Management MS program, no previous assessment were done, therefore, there were no action plans from the previous assessment cycle.

Some of the departmental issues and observations regarding the continuous improvement process include the following:

• The lack of learning outcomes data from our general education courses. Hopefully, with the Provost's Gen-Ed Learning Outcomes Task Force that is currently at work, this information will become available for all our Gen-Ed courses.
• The low rate of participation in the ILO surveys for our online courses. We are working on sending out periodic reminders to our online students via e-mail and through postings in myCourses to encourage them to complete these surveys.

Introduction:

This document serves to summarize the activities undertaken during the 2007-08 academic year in fulfillment of the Civil Engineering Technology Continuous Improvement Plan. This report focuses mainly on program outcomes, the actions needed and taken during the year, and suggested actions for the coming year. Some information is provided related to the Program Educational Objectives, as well, if new assessment data was available.

Summary:
As the Department of Civil Engineering Technology, Environmental Management and Safety, our vision is to be a recognized national leader in providing engineering technology and related programs in the civil, environmental and safety fields that provide students with the power to shape the world.
The curriculum for the Civil Engineering Technology program at RIT has evolved over nearly 30 years, built on the experience of faculty and professionals, to deliver quality engineering technology education to students who are subsequently very successful upon entry into the workforce. Therefore, the development of the vision, mission, educational objectives and program outcomes were completed with the faculty and the Civil Engineering Technology program Industrial Advisory Board and were reported in the 04-05 report. The CET IAB is a dynamic group of civil and construction professionals, including alumni, employers, private and public sector engineers and contractors. These people have continuously provided input on our curriculum, representing the general needs of industry.

Program Educational Objectives: Assessment and Actions
As summarized in the attached assessment matrix, the PEO's are assessed based on information available quarterly, annually, and every 5 years through our alumni survey. This evaluation cycle includes results from coop surveys and graduate surveys, and does not include new alumni survey information. The assessment data indicates that our PEO's continue to be successfully fulfilled except for the low rate of participation of CET graduates in the Graduate Survey that is conducted annually by the Dean's office.
2007-08 1/25/2009 2

Action Items for 2008-09, based on 07-08 assessment:
 During the next Graduate Survey in September 2009, we plan to call and e-mail CET graduates to encourage their participation in the survey (**Marilyn Bullard & Abi Aghayere**)

Program Outcomes: Assessment and Actions
The program outcomes (PO's) are assessed using information available from coursework, course grades, ILO evaluations, quarterly coop reports, and are reviewed annually. The attached continuous improvement matrix provides details.
Action Items for 2007-08, based on 06-07 assessment:
 Put a process in place that shares ILO values with the faculty on a regular basis, similar to course evaluations
 Done. ILOs are now reviewed quarterly together with the course evaluations and are returned to the faculty. All faculty are also involved in the annual continuous improvement process as they review the action items generated by the data from the previous year. A culture of sustainable continuous improvement is being ingrained in our faculty and staff.
 Put a process in place by which faculty report their individual project grades and laboratory grades at completion of the quarter. This will separate the success of these individual items from success in the course.

 Done. The Chair sends an e-mail reminder to all faculty every quarter requesting submission of laboratory/project grades. The e-mail reminder was first sent to CET faculty in October 2008. Faculty have also been made aware of their deliverables by sharing the PEO and PO assessment matrices with them.
 Review ILOs for 0608-422 and consider expanding
 Done. The ILOs have been revised by Todd Dunn and approved by the CET and CAST Curriculum committees.
 Change measures for PO G, written communications. Metrics are not forthcoming from Liberal Arts, so we need to find ways within our own curriculum to measure and report this success.
 In the absence of ILO surveys from Liberal Arts and until the General Education Learning Outcomes issue is resolved, our students' success in liberal arts courses will be measured using the percentage of A, B, and C (excluding Ws) obtained in those courses.
2007-08 1/25/2009 3
Action Items for 2008-09, based on 07-08 assessment:
Below are the action items for 2008-09 with the responsible faculty/staff member indicated.
 Prepare ILO survey for 0608-528 (labs) to be administered starting in 083 (**Harry Cooke & Marilyn Bullard**)
 During the next Graduate Survey in September 2009, call and e-mail CET graduates to encourage their participation (**Marilyn Bullard & Abi Aghayere**)
 Instructor to pay particular attention to the topic of beam and bending during the next offering of Elementary Structures (0608-380) in 083 to ensure students' understanding of this topic (**Todd Dunn & Wafa Polies**)
 Prepare ILO survey for the lab section of transportation engineering (0608-530) to be administered in 092 (**Frank Hanna & Rizk Sinada**)
 The instructor for 0608-496 and 0608-497 to provide separate grading of the cost estimating portions of the design projects starting in 082 quarter (**Jason Vigil & Wafa Polies**)
 The instructor for 0608-432 to develop a course improvement plan (CIP) that will raise the ILO rating for the topic of pumps to 4.0 or higher. More time will be spent on the topic and field trips related to pumps will be included (**Paul Chatfield**)
 Work with ASCE Club to promote and publicize graduate school opportunities and graduate career fairs
(**Marilyn Bullard & Abi Aghayere**)
 Send reminder e-mails in September and January to 5th year students encouraging them to apply to take the FE exam (**Marilyn Bullard**)

Environmental Management and Technology
Continuous Improvement Progress Report 2007-08
Introduction:

This document serves to summarize the activities undertake during the 2007-08 academic year in fulfillment of the Environmental Management and Technology Continuous Improvement Plan. This report focuses on program objectives established in 2004, and suggested actions for the coming year, based on our first year of measurement.

Summary:

As the Department of Civil Engineering Technology, Environmental Management and Safety, our vision is to be a recognized national leader in providing engineering technology and related programs in the civil, environmental and safety fields that provide students with the power to shape the world. The mission of the department is to provide an environment in which faculty and staff can provide strong, innovative, accredited (where appropriate) programs in Civil Engineering Technology, Environmental Management, Safety Technology, Environmental, Health & Safety Management, and Facility Management. Specific goals were provided in the 04-05 report, and are not repeated here.

Environmental Management & Technology shall create and maintain a highquality, practitioner oriented educational program in the forefront of environmental technology, policy and practice.

Program Objectives:

1. Prepare our students to assume professional positions as environmental managers in industry and government.
2. Provide our students with the necessary skills to advance towards leadership positions.
3. Instill in our students a sense of both environmental stewardship and economic responsibility so they may manage environmental projects and programs responsibly and efficiently.

Program Objectives: Assessment and Actions

The program objectives (PO's) are assessed using information available from coursework, course grades, quarterly coop reports, and are reviewed annually. The attached continuous improvement matrix provides details.

Action Items for 2007-08, based on 06-07 assessment:

 Collect graduate survey data and/or alumni survey data at the department level to improve response from our graduates.

 Carry over to 2008-09

 Improvements were made in ILO measurement but more is needed. Ensure that ILO evaluations are made for 0630-360, 0630-480 and 0630-515.

 Carry over to 2008-09

Action items for 2008-09, based on 07-08 assessment:

 Ensure that ILO surveys are administered and collected for all oncampus and online EMT courses including 0630-360, 0630-480 and 0630-515 (**Amy Sickles & Josh Goldowitz**)

 Monitor EMT student performance in microeconomics (0511-211) with a view to improving the success rate (**Anne Klug & Josh Goldowitz**)

 Collect graduate survey data and/or alumni survey data at the department

level to improve response from our graduates. *This is carried over from last year* (**Amy Sickles, Josh Goldowitz**)

Safety Technology

Safety Technology

Continuous Improvement Progress Report 2007-08

Introduction:

This document serves to summarize the activities undertake during the 2007-08 academic year in fulfillment of the Safety Technology Continuous Improvement Plan. This report focuses mainly on program outcomes, the actions needed and taken during the year, and suggested actions for the coming year. Some information is provided related to the Program Educational Objectives, as well, if new assessment data was available.

Summary:

As the Department of Civil Engineering Technology, Environmental Management and Safety, our vision is to be a recognized national leader in providing engineering technology and related programs in the civil, environmental and safety fields that provide students with the power to shape the world.

The mission of the safety technology program is to provide an academically challenging program that prepares graduates with the skills and knowledge to address their organization's immediate and long term safety needs, including protection and preservation of workers, buildings, equipment and corporate reputations. This includes creating physically safer workplaces and modifying employee behaviors. This also may include implementing voluntary protection programs that go beyond legal and regulatory standards. This program will respond to the changing needs of society by being able to be completed through traditional or nontraditional (distance) means.

Program Educational Objectives and Program Outcomes were summarized in the 04-05 report, and are provided in the attached tables. Therefore, they are not repeated here.

Program Educational Objectives: Assessment and Actions

As summarized in the attached assessment matrix, the PEO's are assessed based on information available quarterly, annually, and every 5 years through our alumni survey. This evaluation cycle includes results from coop surveys and graduate surveys, and does not include new alumni survey information. Because of low response rates on recent graduate surveys, faculty have made direct contact with graduates and some information has been provided voluntarily.

The assessment data indicates that our PEO's continue to be successfully fulfilled although survey methods should be reviewed to determine why the low participation rates.

Action Items proposed for 2008-09, based on 07-08 assessment:

 Make direct contacts with safety graduates during the next Graduate Survey in order to improve participation rate (**Amy Sickles, Jen**

Schneider, & Josh Goldowitz)

Program Outcomes: Assessment and Actions

The program outcomes (PO's) are assessed using information available from coursework, course grades, quarterly coop reports, and are reviewed annually. The attached continuous improvement matrix provides details.

Action Items and steps taken for 2007-08, based on 06-07 assessment:

 Improve ILO evaluation process. Specifically ensure that ILO's being measured match those in the course outlines (0633-540) and that students are given the opportunity to evaluate success of intended learning outcomes when course evaluations are completed (0633-526 and 540).

 Done. Program assistant now ensures that ILO surveys are administered and collected from all oncampus and online Safety courses, although there is ongoing difficulty in getting adequate participation from the students in the online courses.

 Improve method of collecting and evaluating project grades from individual courses (0630-490 and 0633-526).

 Done. Faculty have been made aware of the PEOs and POs and what information they are responsible for providing on a quarterly basis

 Engage the faculty in determining what action needs to be taken when ILO ratings are low as compared to other courses (specifically 0633-530 ILO 8 and 0630-454 ILO 9 this past cycle)

 Done. The ILO review is now a part of the course evaluation review by the department chair and faculty are now required to provide a course improvement plan (CIP) when ILO target rating of 4.0 is not met.

 Improve the process used to share information between departments, specifically Industrial Engineering and Mechanical Engineering Technology.

 Ongoing. The CETEMS dept chair has worked well with the MMET dept chair to obtain ILO information for their service courses.

Action Items proposed for 2008-09, based on 07-08 assessment:

Below are the action items for 2008-09 with the responsible faculty/staff member indicated.

 Improve the ILO survey participation rate for students in all Safety online courses. Send periodic reminders to the students in these courses asking them to complete the form. Post reminders also in myCourses (**Amy Sickles & the Instructor teaching the course**)

 Improve the process used to share information between departments, specifically Industrial Engineering (IE). Contact the chair of IE to establish this (**Abi Aghayere**)

 Investigate the amount of statistics used in the System Safety course (**Joe Deeb, Jen Schneider, & Josh Goldowitz**)

 Find a new adjunct to teach Occupational Health II course (0633-526) to replace the existing adjunct because of the low success rate in the course. (**Jen Schneider, Josh Goldowitz, Abi Aghayere**)

 Collect project and group activities grade for 0633-526 in 084

(**Amy Sickles, Instructor teaching the course**)
 Make direct contact with 07-08 safety graduates to encourage them to sit for the ASP or CSP exams (**Amy Sickles, Jen Schneider, Joe Rosenbeck**)
 Instructor for 0630-454 to work on raising the ILO ratings to 4.0 or higher for topics related to incident investigation (**John Coniglio**)

Environmental Health and Safety Management (Graduate Program)

Environmental, Health and Safety Management MS Degree
Continuous Improvement Progress Report 2007-08
Introduction:
This document serves to summarize the activities undertake during the 2007-08 academic year in fulfillment of the Environmental Health and Safety Management Continuous Improvement Plan. This report focuses on program objectives established in 2004, and suggested actions for the coming year, based on our first year of measurement.
Summary:
As the Department of Civil Engineering Technology, Environmental Management and Safety, our vision is to be a recognized national leader in providing engineering technology and related programs in the civil, environmental and safety fields that provide students with the power to shape the world. The mission of the department is to provide an environment in which faculty and staff can provide strong, innovative, accredited (where appropriate) programs in Civil Engineering Technology, Environmental Management, Safety Technology, Environmental, Health & Safety Management, and Facility Management. Specific goals were listed in the 04-05 report and have not changed.
The mission of the Environmental, Health and Safety Management Master of Science Degree program is to prepare traditional and non-traditional local and distance students to manage their organization's environmental, health and safety systems by providing them with the appropriate and current environmental, health and safety management strategy and tools.
Objectives:
1. Provide a curriculum that includes environmental, health and safety management strategies and tools.
2. Provide a flexible learning environment that allows the program to be completed through traditional and, or non-tradition means.
3. Produce students who are prepared to further their career in the field of environmental, health and safety management.
Program Objectives: Assessment and Actions
The program objectives (PO's) are assessed using information available from coursework, course grades, quarterly coop reports, ILOs, and are reviewed

annually. The attached continuous improvement matrix provides details.

Action Items for 2007-08, based on 06-07 assessment:

 Evaluate ways to allow recent and past graduates to assess the program. This is a repeat action item from last year.

 Done. A graduate survey was administered; however, undergraduate and graduate student results were co-mingled. Comments that could be identified as pertaining to the graduate program were very positive. (**Amy Sickles, Joe Rosenbeck, Michelle Wettering**)

 Establish a better method for collecting project related data from specific courses.

 Done. The program chair and program assistant collected project information from the faculty. (**Joe Rosenbeck & Amy Sickles**)

Action Items for 2008-09, based on 07-08 assessment:

Below are the action items for 2008-09 with the responsible faculty/staff member indicated.

 Improve the survey method used to obtain recent and past graduates' program assessment.

 Change the graduate survey form that is administered annually to all graduating students to distinguish between department undergraduate and graduate students. (**Joe Rosenbeck, Michelle Wettering**)

 Create and administer a survey for past program graduates. (**Joe Rosenbeck & Amy Sickles**)

 Evaluate ways to allow the program industrial advisory board to assess the program (**Joe Rosenbeck**)

 Survey the board at annual meeting. (**Joe Rosenbeck & Amy Sickles**)

Facility Management MS Degree

Continuous Improvement Progress Report 2007-08

Introduction:

This document serves to summarize the activities undertake during the 2007-08 academic year in fulfillment of the Facility Management Continuous Improvement Plan. This report focuses on program objectives established in 2006, and suggested actions for the coming year, based on our first year of measurement.

Department Mission Statement:

As the Department of Civil Engineering Technology, Environmental Management and Safety, our vision is to be a recognized national leader in providing engineering technology and related programs in the civil, environmental, facility management, and safety fields that provide students with the power to shape the world.

Mission:

The mission of the department is to provide an environment in which faculty and staff can provide strong, innovative, accredited (where appropriate) programs in Civil Engineering Technology, Environmental Management, Safety Technology, Environmental, Health & Safety Management, and Facility Management.

Goals:
• Produce programs that prepare students for a successful, life-long career after graduation
• Work effectively with industry to provide cooperative education experience and applied research opportunities for our students.
• Deliver academic programs in multiple formats to meet the needs of full-time and part-time students.
• Provide state-of-the-art facilities that encourage learning, student project work and applied research.
• Provide an environment for continuous improvement of faculty, staff, facilities and curriculum.

MFM Program Objectives:

The mission of the Facility Management Master of Science Degree program is to prepare traditional and non-traditional local and distance students to manage their organization's physical assets and systems by providing them with the appropriate and current facility management strategy and tools.

1. Provide a curriculum that includes facility management strategies and tools.
2. Provide a flexible learning environment that allows the program to be completed through traditional and, or non-tradition means.
3. Produce students who are prepared to further their career in the field of facility management.

Program Objectives: Assessment and Actions

The program objectives (PO's) are assessed using information available from coursework, course grades, quarterly coop reports, ILOs, and are reviewed annually. The attached continuous improvement matrix provides details.

Action Items for 2007-08, based on 06-07 assessment:

 There was no prior assessment of this program so there were no action items from last year's cycle. All courses in this program are offered online only and there were no ILO surveys administered in 2007-08.

Action Items for 2008-09, based on 07-08 assessment:

 To provide additional assessment data points, administer and collect ILO surveys for all the online courses in the program. Work with the adjunct instructors to ensure that these ILO surveys are submitted by the students (**Joe Rosenbeck & Amy Sickles**)

National Technical Institute for the Deaf

OUTCOMES ASSESSMENT PROGRESS REPORT

NTID EXECUTIVE SUMMARY

February 18, 2009

Outcomes assessment is well established and supported at NTID. The Interim Vice President for Academic Affairs/Vice Dean and the NTID Curriculum Resource Associate continue to guide Chairpersons and Program Coordinators who are responsible for sustaining the outcomes assessment efforts in academic programs, general education and academic support areas. All thirteen academic programs (plus three which are being discontinued), three general education outcome areas, and four academic support programs in the college have Outcomes Assessment Plans. Each plan identifies critical outcomes, performance benchmarks, assessment instruments and timelines. All plans have been implemented, with many of them completing several full cycles. Thirteen units have made curricular or programming changes based on results, five have made changes to their assessment procedures, and even the five newest programs have collected some data. Reporting is conducted on an annual basis every June, with the most recent full reports completed in June 2008 for the Academic Year 2007-2008. For purposes of this mid-year review, summary/reflective comments on progress made between February 2007 and February 2009 were written into the AY2008-2009 reports. For many programs, comments show that data is being collected in a more systematic way, and outcomes assessment is better integrated into programmatic activity than in 2007. The college continues to provide technical support for maintenance, updating and

management of the online Outcomes Assessment reporting system, accessed through the NTID President/Dean's website http://www.ntid.rit.edu/president/soa/ .

The programs which had data to report for the February 2007 NTID Report have conducted at least one more round of assessments, reported their results, and identified or taken actions based on the results. Programs that were under revision and had suspended data collection in 2007 reviewed and revised their outcomes assessment plans as part of the curriculum revision process. These programs have now begun assessing student learning outcomes and have completed annual reports, but most need additional data before determining the implications of the results. Several new programs and one modification to a program have been completed since 2007, and these programs all included student outcomes assessment plans in the documentation of the new curricula. (See the NTID Program Summary Table, Summary of Assessment Results and Actions section below, and individual program Plans/Reports for details.)

Co-op supervisor evaluations of students' overall job performance provided a measure of technical competency for AOS and AAS degree students. Since 2007 there has been an increase in the number of supervisors completing the evaluations online which allowed reporting of results for all programs grouped by department, rather than for the college as a whole. Results were satisfactory and exceeded criterion levels, ranging from a mean of 3.75 to 4.8 on the 5-point satisfaction scale. Placement data was also reported for each department and results remained very high. All programs reported that over 95% of graduates seeking employment were working, with the exception of one field of study which has since been merged into a new (consolidated) program. An Alumni Survey, conducted in 2007, provided information about 2001-2006 graduates.

While many of the programs have been revised since these alumni completed their studies, their responses indicated a high degree of satisfaction with instruction received at NTID/RIT. Ratings for all associate and baccalaureate degree granting departments ranged from 83% to 92% of alumni indicating excellent/above average satisfaction. 92% of master's degree students indicated excellent/above average/average satisfaction with instruction.

Outcomes assessment meetings are held regularly at NTID for the purposes of information dissemination and discussion. The Fall 20081 meeting was particularly insightful when program coordinators and chairs shared highlights of their assessment processes and use of results. An additional benefit was that the meeting created a forum for instruction for new chairpersons and coordinators. Recent upgrades to the outcomes assessment website were demonstrated, including a revised editing function which was welcomed by the individuals who regularly enter assessment data and comments. Resources, publications and conferences related to assessment are also updated on a yearly basis. A follow-up assessment meeting addressed specific concerns of NTID/RIT 2+2 associate degree transfer programs.

A course inventory conducted in Winter 20082 identified several courses that needed to be discontinued and confirmed that all courses currently offered at NTID have course outlines which include student learning outcomes (See Course Inventory Chart below). Course outlines are posted on the NTID President/Dean's website at http://www.ntid.rit.edu/president/curriculum.php . The NTID Curriculum Committee is fastidious in assuring that all new and revised courses include appropriate student

learning outcomes and associated assessment methods, and that these outcomes are related to programmatic and general education goals.

Course Inventory Chart

Department/Program(s)	# of Courses	% of Course Outlines with Learning Outcomes
American Sign Language and Interpreter Education ASL-English Interpretation	28	100%
Arts & Imaging Studies ACD, A&IS , DIPT	124	100%
Business Studies AT, AST, Business, HSM	35	100%
Engineering Studies AMT, AOT, AT, CADT, CIMT	74	100%
Information and Computing Studies ACT	43	100%
English, Humanities, and Social Sciences Communication, Deaf Studies/ASL, Performing Arts	86	100%
Science and Mathematics LST, Mathematics, Science	56	100%
Research and Teacher Education MSSE	17	100%
TOTAL	**463**	**100%**

STRENGTHS AND CHALLENGES

Strengths

Over the past two years there has been an increase in the number of programs collecting data and using results to make changes to instruction and/or the assessment process. Student Outcomes Assessment is becoming more embedded in the way faculty and staff think about evaluating programs and services, and is accepted as a required component of the curriculum review and approval process. Assessment strategies are instrumental in assuring that skills expectations are met, that students and alumni are satisfied, and that employment or further education follow graduation. When assessments uncover weaknesses, curricular changes are made. When the instruments or timing of assessments are not yielding useful results, these are revised. There is an increased

willingness of Chairpersons and Program Coordinators to meet with the CRA, to share results and issues with each other and with review boards, and to form faculty working groups to address potential problem areas. Chairpersons, Program Coordinators, and faculty are starting to see the value of tracking student competencies in a more systematic way. This is a major accomplishment. There also continues to be strong administrative and technology support, a consistent assessment plan template, and an agreed-upon annual reporting schedule.

Challenges

Academic program revisions and additions have often been driven by initiatives that occur outside the assessment process, such as the NTID Strategic Visioning 2010 plan. The net effect has been to slow down the implementation of outcomes assessment in a number of programs. Because of major programmatic revamping it will require several cycles before enough data is collected to impact curriculum decisions. In some cases, established programs are finding that the instruments and/or courses included in their plans did not yield the types of information that would impact curricular or service decisions, and thus are revising aspects of their plans. At times the outcomes are too narrow in focus (e.g. Counseling) and in other situations they are too broad (e.g. Accounting Technology). An additional concern is that there continues to be a need for discussion about the connection between the student learning outcomes written into the course outlines, and the outcomes assessment plans developed at the program level. For a number of programs the course outlines were reformatted to include learning outcomes and associated assessment methods before the departments wrote and implemented their program-level outcomes assessment plans. Faculty teaching courses in which no direct

measures are used for outcomes assessment reporting still need to be aware of how their courses contribute to the development of competencies that will be assessed in later courses. There is full compliance with each Chairperson and Program Coordinator working on outcomes assessment. However, some challenges remain in gaining the full support of individual faculty if we are to make outcomes assessment as fully embedded in the academic culture as possible. Also, there is significant opportunity in utilizing student learning outcomes assessment at the course and program levels for scholarship of teaching and learning that faculty can include in tenure and promotion portfolios.

ASSESSMENT PLANS/INITIATIVES (Spring AY2008-09 —Winter AY2009-10)

Outcomes Assessment remains a priority supported by the college. In many cases programs are still relatively early in the data collection process and either do not have sufficient data to impact decisions or haven't found the results to be useful yet. We need to encourage each academic, general education and support program to sustain the efforts that are already underway. Some specific planned activities include:

- CRA to meet individually with Chairpersons/Program Coordinators to address relevant assessment issues;
- Chairpersons/Program Coordinators to maintain annual June reporting on outcomes assessment website;
- Interim Vice President for Academic Affairs/Vice Dean and CRA to facilitate further discussion on how to analyze data and use results to make decisions about curriculum and instruction;
- Faculty Development and New Faculty Orientation and Training Coordinator to add outcomes assessment as a topic for new faculty seminars;

- Interim Vice President for Academic Affairs/Vice Dean and CRA to continue discussion of outcomes with Chairpersons of AS and AAS 2+2 transfer programs;
- NTID to revise general education outcome plans to align them with those at RIT once the university-wide general education learning outcomes are approved.

SUMMARY OF ASSESSMENT RESULTS AND ACTIONS

Each academic program, general education area and academic support program has an AY2007-2008 Plan/Report archived on the NTID outcomes website at http://www.ntid.rit.edu/president/soa/pages/archive/ . Each program also has Summary/Reflective Comments in their AY2008-2009 Plans/Reports at http://www.ntid.rit.edu/president/soa/pages/plan.html).

In the last reporting to RIT in February 2007, four NTID academic programs which collected data had applied their outcomes assessment results to improving instruction. Each of these programs has completed another one, and in some cases two, rounds of data collection and has made some changes based on assessment results. These efforts are detailed in the individual program ’07-’08 reports and ’08-’09 summary/reflective comments referenced above, and are noted in the attached NTID Program Summary Table. Some of the highlights include:

- Administrative Support Technology (AST) - All benchmarks were met except in the domain of interpersonal/human relations skills. Among efforts to address this have been workshops, videoconferencing and the development of a Special Topics course in Business Ethics. Electronic portfolio format and rubric are being field tested for assessment of technical skills.

- Applied Computer Technology (ACT) – Data collected in ’07-’08 yielded mixed results and prompted the establishment of a faculty working group to discuss assessment of technical skills. Several assessment instruments were revised to more accurately reflect student achievement. Hardware skills are being evaluated separately from software in the PC Technical Support concentration, and a portfolio is being used for assessment in the web development concentration. An industry advisory group was established in Fall 2008 and its recommendations are being added to the assessment plan. Assessment of outcomes for the AS in ACT is beginning in AY2008-09.
- Laboratory Science Technology – Outcomes Assessment is playing a critical role in the continual shaping of this relatively new program. Assessment uncovered areas in need of improvement. The sequence of courses was changed and new courses were added to better address molecular biology. Initial assessment results in AY2005-06 warranted increased curricular emphasis on safety. Subsequent rounds of data collection showed steady improvements in this area. Based on assessment data modifications to instruction were also made regarding sample preparation, and again subsequent assessment showed an increase in the average rating. AY2007-08 data showed criterion was met on all technical skills.
- Master of Science in Secondary Education of Students Who Are Deaf or Hard of Hearing Students (MSSE) –Several efforts have focused on improving student pass rates for deaf education certification test, e.g. identifying for students and instructors the courses that align with the test framework, and holding review classes. Unofficial results for the 2008 graduating class indicate that the expected

pass rate has improved to the NYSED required 80% for the program. Curricular improvements have also been made to enhance students' preparation regarding IEPs and classroom management strategies.

In February 2007 nine programs were either new or recently revised and thus did not have assessment data to report, or had not used data to take any action. Over the past two years these nine programs have collected and reported data, according to the timelines listed in their plans. While it is too early for many of them to make curricular decisions, each has seen some positive results, one has implemented changes, and several programs have found that their assessment instruments needed revision if they were to yield useful data. Some of the program highlights include:

- Accounting Technology - Student performance appraisal instrument showed significant student improvement over several years, but faculty felt it was difficult to interpret the rating scale results. They are designing a test to assess specific technical skills taught in six program courses which should yield data that will better inform instruction. Reporting will be yearly rather than aggregate so that trends can be detected and potentially lead to changes in instruction/curriculum.
- ASL-English Interpreting – Initial results of data collection for the new program are affirming, but more data is needed before curricular decisions are made. Skill assessment was moved to a later course than initially proposed. Performance language on outcomes assessment was changed to match practicum/internship evaluation form.

- Applied Mechanical Technology – A student satisfaction survey was developed and administered to the first graduating student. Data collection is continuing since the number of students in this relatively new program is still low.
- Automation Technologies – Students met criterion levels for all but one set of technical skills. Initial data showed a potential weakness related to electrical competencies so this is being monitored.
- AS in Business – Criterion was exceeded for acceptance into BS programs. Satisfaction questionnaire and test to assess five business core areas were developed for administration in AY2008-09.
- Computer Aided Drafting Technology – Students had acceptable ratings for all technical skills except for their ability to research and incorporate technical information into projects. Course sequencing has been revised so this critical thinking skill can be addressed earlier in the program to allow more time for students to develop it.

NTID has made several changes to its program portfolio since the February 2007 report. A program consolidation resulted in the addition of a new program with the concomitant discontinuance of the two combining programs. One academic program has been revised to incorporate elements of a previously offered program, and a new transfer degree program has been initiated. Each of the three programs has an assessment plan and is on-track for data collection.

- AS in Hospitality and Service Management (HSM) – Data is being collected at the end of this academic year. Additional advising was provided to encourage students to follow the course mask and complete co-op as scheduled.

- Arts & Imaging Studies (A&IS) - This is a consolidation of two previously offered programs, Art and Computer Design (ACD) and Digital Imaging and Publishing Technology (DIPT). Assessment of outcomes for the domains and tasks identified in ACD and DIPT were useful in guiding the development of the new A&IS program. In particular, outcomes assessment results were used to identify areas of strength in the ACD and DIPT programs. In areas where student achievement was found to be low, such as in webpage design and website organization in the DIPT program, elements were added to enhance the new curriculum. Also, a production course was added to A&IS, and portfolio and resume review processes were tightened.
- Computer Integrated Machining Technology (CIMT) – This revised program incorporated precision optics fabrication elements that were previously offered in the Applied Optical Technology (AOT) program. Relevant technical outcomes from AOT were added to the CIMT plan and assessment has begun. Initial results regarding technical skills and student satisfaction are mixed. Further data is needed before any assessment impact can be determined.

General Education

For the assessment of General Education, NTID established three outcome areas, English literacy, critical thinking and communication. Over the past two years, the college has continued to implement plans for each outcome, although two of the areas have been impacted by curricular change.

- English Literacy – Partially on the basis of outcomes data, a major revamping of the developmental English curriculum has been undertaken, with piloting

beginning in AY2007-08 and continuing in AY2008-09. Outcomes are being established for the Career English program. Initial data in the new Intensive English program shows that the target course placement outcome may be set too high. Discussion continues regarding setting the expectation as placement into Written Communication I or Written Communication II.

- Critical Thinking - Due to revisions in the Capstone courses critical thinking is now being assessed via group projects rather than research papers. Assessment is in its fifth year of data collection and benchmarks were regularly met until last year when the benchmark was met for AOS, but not for AAS students. Data collection is continuing.
- Communication – Plan has been implemented more fully than two years ago. Criterion was met for presentation skills. Changes are being made to the e-mail rubric based on pilot results. Instruction has been infused into Communication and Job Search courses to enhance the outcomes which are assessed in the Capstone courses.

Academic Support Programs

- Counseling – The number of respondents has increased due to administering satisfaction surveys during large student events. Department is taking a new approach, beginning with student focus groups, in an effort to make assessment of graduating students more meaningful.
- First Year Experiences – Strategies were implemented to improve retention as demonstrated by the rate of successful completion of Freshman Seminar. Use of

Early Alerts, more frequent meetings with instructors, and identification of at-risk students yielded higher results. Benchmark was met for the first time in Fall 081.

- Speech-Language and Audiology – Student ratings of awareness of services in the department increased and remained at an acceptable level since the department instituted changes in how they share services information. Faculty have modified discipline procedures to better assist students and to collect pre-post data on specific instructional goals.
- Student Life – Assessment efforts helped shape improvement to the program and responsiveness to student needs. For example, the department changed to annual supervisor assessments, restructured its staff training model, and revised data collection plan to improve outreach to students who do not regularly utilize Student Life Team services.

For each program indicate the status of outcomes assessment implementation in the table below

C = Complete | IP = In progress | M = Missing

NTID Program Summary Table 2-18-09*

Program Name	Program Outcomes Defined	Methods Assessment Identified	Course Outlines have learning outcomes	Data Collection	Report shows data, decisions, results analysis	Assessment plan fully implemented with continuous review	Comments
ACADEMIC PROGRAMS							
Accounting Technology	C	C	C	C	C	C	Data collected on 41 additional students; % achieving criterion increased; results difficult to interpret; developing test for a better measurement of specific technical skills; will analyze yearly rather than a aggregate data in '09-'10
Administrative Support Technology	C	C	C	C	C	C	Most benchmarks met; '07-'08 below criterion for interpersonal skills-workshop & special topics course developed to address this in '08-'09; Articulation Agreement w/ CAST helps address student satisfaction
ASL-English Interpretation	C	C	C	C	C	IP	Results posted for AY 06-07 & 07-08; some changes made to plan based on BS program revision; % of students meeting criterion levels varied; no actions planned at this time-will continue to collect data.
Applied Computer Technology	C	C	C	C	C	IP	Criteria met for 1.5 out of 3 general technical skill areas and none of the technical concentrations; Working Group will be convened '08-'09 to consider assessing categories of grouped tasks instead of individual skills.
Applied Mechanical Technology	C	C	C	IP	IP	IP	Data collection initiated, including Student Satisfaction Survey; N's are too small (1-5 students) to interpret or use results yet; First cohort of students enrolled in the full 2 year program will graduate 20083.
Applied Optical Technology	C	C	C	IP	IP	IP	Program is scheduled for discontinuance; precision facbrication elements have been added as electives in Computer Integrated Machining Tech (CIMT) starting '08-'09; outcomes have been incorporated in CIMT plan
Art and Computer Design	C	C	C	C	C	C	Criterion exceeded for technical skills, placement, co-op evaluations and alumni satisfaction; Program to be discontinued June 2010-relevant elements are included & assessed in new (consolidated) program.
Art & Imaging Studies	C	C	C	IP	IP	IP	The A&IS program just completed its first year and the first graduates will be in AY 2008-2009. The program outcome assessment will occur at that time.
Automation Technologies	C	C	C	IP	IP	IP	Results positive for placement, co-op and student satisfaction with courses; positive results on 3 of 4 technical skills; potential weakness in electrical skills; n's too small to draw conclusions; will continue to monitor results
Business (AS Degree Program)	C	C	C	IP	IP	IP	Criterion exceeded for acceptance into BS program; Satisfaction questionnaire & standardized test to assess five business core areas were developed and approved by faculty; these will be administered AY '08-'09
Computer Aided Drafting Technology	C	C	C	IP	IP	IP	Technical skills results generally positive; four technical courses moved to earlier in program to strengthen ability to incorporate technical information into projects; data from 20081 indicated strong student satisfaction
Computer Integrated Machining Technology	C	C	C	IP	IP	IP	First attempt to assess technical skills; some results are positive, others are not; Co-op, placement & alumni results met criterion; Student satisfaction survey yielded mixed results; program modified; more data needed
Digital Imaging and Publishing Technology	C	C	C	C	C	C	All criterion met or exceeded; program to be discontinued June 2010-relevant elements are included in new program; based on DIPT assessment, web production will be monitored and a second publishing courses added
Hospitality and Service Management	C	C	C	IP	IP	IP	First year of program; data collection to begin in AY 2008-2009; enrollment expectation of one student was exceeded by two; none on co-op; will encourage students to follow course mask and pursue co-op on time
Laboratory Science Technology	C	C	C	C	C	C	Benchmarks met for 13/14 technical skills; faculty believe trend toward improved safety ratings is due to revised curriculum; biology/microbiology curriculum to be reviewed/revised to try to improve ratings in this category
Secondary Education of Students Who Are Deaf or Hard of Hearing (MSSE)	C	C	C	C	C	C	Online self-appraisal of student teaching aims to improve 50% response rate; addressing timing re classroom mgmt & IEP writing; action plan sent to NYSED re content certification pass rate; rate improved from '07 to '08
GENERAL EDUCATION (Arts & Sciences)							
English Literacy	C	C	C	IP	IP	IP	Major revamp of developmental English curriculum; Career English and Intensive English programs initiated-experimental phase continues AY08-09; Intensive English data shows target course placement may be too high;
Critical Thinking	C	C	C	C	C	C	Manuscript based on process and results in press; Capstone course revised to better address curricular goals; critical thinking rubric applied to team presentations instead of research papers; criterion met for AOS students
Communication	C	C	C	IP	IP	IP	Co-op supervisor data re: face-to-face communication indicated sufficient competency; E-mail evaluation piloted-being revised; Criterion met for presentations in Capstone; Instruction infused in several courses
ACADEMIC SUPPORT							
Counseling	C	C	C	C	C	C	Criterion met or exceeded for all first year students' outcomes; graduating student satisfaction rate near criterion level; increased respondent rate by changing administration timing; established assessment task force
First Year Experiences	C	C	C	C	C	C	Most benchmarks met or exceeded; retention improved; program placement % for NCXU improved from '07-'08 to '08-'09; Over 97% success for Fall registration for two years-assessment to be discontinued in '09-'10
Speech-Language and Audiology	C	C	C	C	C	IP	Most benchmarks met; change to services ques. improved results; will monitor articulation pre-post in 08-09: drop may be due to adding new staff/adjuncts; pre-post data collection begins 08-09 for audiology & aural rehab
Student Life	C	C	C	C	C	C	Results indicate overall satisfaction with programs, staff & environment; PD of staff is substantial; implemented different data collection plan to improve outreach to students not regularly utilizing Student Life Team services

College of Liberal Arts Executive Summary

The College of Liberal Arts (COLA) has made significant progress, in a number of areas, since the 2007 Middle States Outcomes Assessment Status Report. COLA has recently introduced three new B.S. degree programs (in Cultural Resource Studies, Journalism, and Philosophy), the number of students enrolled in COLA programs continues to rise to record levels (750 students in AY 2008-2009), and we have seen small, albeit steady, growth in the number of full-time faculty lines. The college expects to see continued growth by adding additional degree programs and attracting larger numbers of students to the college. In tandem with this growth, the college has also increased its efforts to research, create, and implement assessment plans for all programs.

The college now has 10 B.S. and 4 M.S. degree programs with several more in the approval process. We are pleased to report that, since the last status report, every degree program now has an assessment plan and every COLA course has clearly stated learning outcomes. (See Table 1.) Obviously, different programs are at different stages of implementing their assessment plans. Some of the newer programs, with only a handful of students and no alumni, are still at the beginning stages. Other, more established programs, now have a track record of successful assessment, program modification, and re-assessment. And many programs are somewhere in between.

Table 1: Course Outlines with Intended Learning Outcomes

Course Outlines Revised with Intended Learning Outcomes	Outlines Complete		
	2006	2007	2008
College of Liberal Arts	70%	70%	100%

Assessment faces several challenges in COLA. Some of these challenges are philosophical: many faculty have principled reasons for distrusting the assessment process, viewing it as an extension of No Child Left Behind misapplied to university education, as biased in favor of quantitative as opposed to qualitative data and methods, or as a tool for holding departments and programs up to unnecessary scrutiny, among other reasons.

However, by far the greatest challenges are practical: faculty teach on average 7 four-hour courses per year which, when combined with advising duties, committee work, and research expectations, leaves little time for sustained attention to assessment. In addition, the rhythms of the quarter system, which require preparing syllabi, grading finals, etc., three times per year (as opposed to twice in a semester system) both subtracts from the time available to do assessment and, perversely, often adds to the pressure of conducting regular assessment of specific courses. All too often organized assessment comes as yet another demand on faculty who are, honestly, already laboring under a heavy burden of demands and expectations.

These are, of course, common concerns with outcomes assessment and they are likely to continue as long as COLA faculty must balance competing demands of research, teaching and service under the current quarter calendar and teaching load. Given this, it is perhaps remarkable just how much faculty *have* embraced outcomes assessment. Since the 2007 Status Report faculty have shown much greater understanding and acceptance of outcomes assessment. In particular, misconceptions (for example, the misconception that outcomes assessment can be carried out by analyzing course grades) are much less

widespread and it is widely accepted that outcomes assessment can serve a valuable purpose in the routine evaluation of programs. To take one example, a number of faculty participated in a pilot study of general education assessment and many others have provided access to student papers to help calibrate and confirm these assessment methods.

A large part of this greater understanding and acceptance of outcomes assessment is the result of assessment having lately become part of the fabric of RIT and COLA. The recent hiring of a full-time director of assessment, the requirement that all new programs include an assessment plan and set of learning outcomes, and the creation of several campus wide committees signal the Institute's commitment to outcomes assessment. Within COLA, copies of the MSCHE *Student Learning Assessment: Options and Resources* manual were distributed to all chairs, faculty are increasingly involved in assessment related activities around campus, and a new Associate Dean, Suzanne Graney (who is also one of the authors of this summary) has brought her expertise in outcomes assessment to the college's administration. For these reasons we believe the college has built up a fair amount of momentum with regard to assessment.

To wit, in the coming months several COLA programs will take significant steps in either implementing or "closing the loop" on their assessment plans. For example, the Criminal Justice Program will collect its first round of assessment data in Spring quarter 2009 and the Philosophy program will convene the first meeting of its Program Faculty Review Committee. Other programs, such as Public Policy and those housed in the Department of Communication will continue "closing the loop" by making modifications in response to earlier assessment results and by determining whether these modifications

have had their intended effect. These programs now have a self-sustaining process of continuous assessment in place. Finally, several of our newer programs are reaching the critical mass of students where outcomes assessment is both feasible and reliable.

The following table summarizes the current state of outcomes assessment across all COLA programs. More detailed information can be found in the Program summaries immediately following the table or in the information provided by each Program.

Table 2: College of Liberal Arts Program Summary

For each program indicate the status of outcomes assessment implementation in the table below
C = Complete IP = In Progress M = Missing

Program Name	Program Outcomes Defined	Methods of Assessment Identified	Course Outlines have Learning Outcomes	Data Collection	Report shows data, decisions, results analysis	Assessment plan fully implemented with continuous review	Comments
Applied Experimental and Engineering Psychology (M.S.)	C	C	C	IP	IP	IP	New program – assessment not yet fully implemented for "loop closing."
Advertising & Public Relations (B.S.)	C	C	C	C	C	C	
Communication & Media Technologies (M.S.)	C	C	C	C	C	C	
Criminal Justice (B.S.)	C	C	C	IP	IP	IP	Data collection will begin Spring 2009
Cultural Resource Studies (B.S.)	C	C	C	M	M	IP	New program – has complete assessment plan but not yet implemented
Economics (B.S.)	C	C	C	C	C	C	Department concluded no changes are needed to the program.
International	C	C	C	C	M	IP	Unclear association

Studies (B.S.)							between data and program decisions beyond feedback to students.
Journalism (B.S.)	C	C	C	IP	IP	IP	New degree approved 9/08
Philosophy (B.S.)	C	C	C	IP	IP	IP	New degree approved 9/08
Professional & Technical Communication (B.S.)	C	C	C	C	C	C	
Psychology (B.S.)	C	C	C	C	IP	IP	Department reviewed outcomes and made program changes based primarily on anecdotal observations.
Public Policy (B.S.)	C	C	C	C	C	C	
School Psychology (M.S., A.G.C)	C	C	C	C	C	C	Externally accredited program (National Association of School Psychologists)
Science, Technology and Public Policy (M.S.)	C	C	C	C	C	C	
Urban and Community Studies (B.S.)	C	C	C	IP	M	IP	New program; insufficient data to report. Unclear association between data and program

							decisions beyond feedback to students.

COLLEGE OF LIBERAL ARTS PROGRAM SUMMARIES

M. S. Degree in Applied Experimental and Engineering Psychology

The M.S. Degree in Applied Experimental and Engineering Psychology is housed in the Department of Psychology. It has been operating since the Fall quarter 2006, and currently 15 students are enrolled.

The Department of Psychology has articulated five program outcomes for its M. S. Degree. Upon graduation, students will (1) be aware of relationships between the individual and the environment, (2) be able to think critically as scientists about behavior, (3) demonstrate effective oral, written, and visual communication skills, (4) be able to apply appropriate quantitative methods to the study of Engineering Psychology, and (5) be familiar with research methods in Engineering Psychology and related fields. Each of the program outcomes has associated performance criteria, strategies, assessment methods and metrics.

Assessment of these outcomes is the responsibility of faculty in the Psychology Department. It is accomplished primarily through student performance in core courses, evaluation of a master's thesis, and administration and analysis of an alumni survey. Due to the newness of this program, its assessment plan has not yet been fully implemented.

B.S. Degree in Advertising and Public Relations

The B.S. degree in Advertising and Public Relations (APR), housed in the Department of Communication, is a relatively recent addition to the College's portfolio. The program received state approval in 2005 and has since grown to be one of the largest

programs in the college. For AY2008-2009 approximately 130 students are enrolled in the major.

The APR program undergoes continuous assessment on the basis of co-op evaluations, student and alumni surveys, qualitative portfolio reviews, and annual department curriculum retreats, among other methods. Data are also kept on the number of APR students who have papers accepted for publication or presentation at state, regional and national conferences.

The department has identified six program outcomes for APR. Graduating students should be able 1) to understand the role of advertising and public relations in the marketing process, 2) to understand and apply principles and theories of persuasion, 3) to conduct research effectively, 4) to speak publicly with a high level of proficiency, 5) to write proficiently and 6) to use visual communication and design effectively. Each of these outcomes is associated with specific performance criteria, strategies, methods, and metrics. Each outcome is assessed annually and alumni surveys will be conducted every five years. The undergraduate program coordinator is primarily responsible for assessment with results reported to the department chair on an annual basis.

Even though the program is relatively young, outcomes assessment has already led to a hardware and software upgrade of the computer labs, a portfolio assessment day for all graduating seniors, the placement of student writing assignments in local media outlets, competitive research papers accepted for presentation at state and regional conferences, the creation of campaign posters, and the design of a book containing the papers of the annual Conference for Undergraduate Research in Communication.

M.S. Degree in Communication and Media Technologies

The M.S. Degree in Communication and Media Technologies (CMT) is housed in the Department of Communication and builds on the Department's strengths in undergraduate education. The M.S. degree has been running since 2001 and in AY2008-2009 enrolls approximately 50 students.

The CMT program undergoes continuous assessment as the result of faculty critiques of student work, reviews of student theses, alumni surveys, and tallies of student research presentations at professional conferences, annual department curriculum retreats, among other methods.

The department has identified five program outcomes with associated criteria, strategies, assessment methods, and metrics. Assessment takes place annually except for the alumni survey which occurs every five years. The coordinator of the graduate degree program conducts the assessment and reports results to the chair of the department. The five program outcomes have the goal of graduating students who 1) are able to conduct high level scholarly research, 2) understand the historical development of media technologies, 3) understand the legal challenges of communication technologies, 4) are able to pursue additional graduate work at the doctoral level and 5) have the skills to achieve job mobility.

As a result of ongoing program assessment students have presented research papers and won top paper awards at regional conferences, entered Ph.D. programs, and have taken positions as teachers, administrators, account executives, and research directors. In terms of the curriculum, one course, Readings in Mass Media, has been added for students entering the program without an undergraduate degree.

B.S. Degree in Criminal Justice

The B.S. Degree in Criminal Justice is the most established degree program in the College of Liberal Arts and now has several hundred graduates across the United States. In AY 2008-2009 approximately 175 students are enrolled in the program.

The Criminal Justice faculty is in the process of implementing an assessment plan that will allow for continuous program review on the basis of alumni surveys, student evaluations, practicum evaluations, and discussions with an external advisory board. In particular, the department is focusing on providing students with the theoretical and technological understanding to conduct criminal justice research either in the public sector or in graduate school.

The department has identified three program outcomes. Graduating students should be able 1) to understand the structure and operation of the criminal justice system, 2) to evaluate research and policy-related writing in criminal justice, and 3) to apply various theoretical approaches and research methods to real world problems. Each of these program outcomes has associated performance criteria, strategies, assessment instruments, and reporting mechanisms. Data collection will take place primarily in the spring quarter and be reviewed both at an annual faculty retreat each summer and with an external advisory board. An alumni survey will be conducted annually and the entire program will undergo external review, by a panel of independent experts, every five years.

The department is currently devising assessment instruments with the first round of data collection scheduled to take place during the upcoming spring quarter (i.e., March-May 2009).

B.S. Degree in Cultural Resource Studies

The B.S. Degree in Cultural Resource Studies is housed in the Department of Fine Arts. It is a new program, having received its state approval in September 2007. Currently 8 students are enrolled. Students enrolled in the program choose one of two professional tracks: Cultural Resource and Information Studies or Art Conservation.

The B.S. degree in Cultural Resource Studies has nine program objectives, seven program outcomes per track (nine total), and five career outcomes. Each of the program outcomes has associated performance criteria, strategies, assessment methods and metrics. Assessment strategies are varied and include in-class assessment (e.g., testing, presentations), successful course completion, production of a tangible product such as a journal or portfolio, and completion of supervised field-based experience with positive supervisor ratings. Career outcomes will be assessed by surveying program alumni three times within 5 years of graduation. Assessment is carried out by program faculty and field supervisors, and reviewed by three groups: a Faculty Review Committee, an Advisory Board, and an external reviewer.

Due to the newness of the Cultural Resource Studies program, its assessment plan is not yet fully implemented.

B.S. Degree in Economics

The B.S. Degree in Economics, housed in the Department of Economics, is one of the more established programs in the College of Liberal Arts. It has been awarding the B.S. degree program since its approval in 1984. Currently 52 students are enrolled in the program, including 23 double majors.

The B.S. Degree in Economics has five program outcomes. These include (1) graduates attain a wide variety of career outcomes, (2) graduates are prepared to pursue graduate students, (3) graduates have skills to change jobs easily, (4) students have opportunities for pursuing independent research, and (5) students have opportunities for teaching and research assistantships. Assessment of the first three outcomes occurs through frequent surveying of program graduates. Assessment of the remaining two outcomes occurs semi-annually by examination of department records.

The Economics Department is satisfied with the information collected thus far regarding the effectiveness of its degree program. At this time the department does not intend to make program changes as a result of the data collected.

B.S. Degree in International Studies

The B.S. Degree in International Studies is housed in the Department of Sociology and Anthropology. It is a relatively new program, having been established in 2004. Currently 64 students are enrolled in the B.S. program in International Studies.

The B.S. Degree in International Studies has five program outcomes. These include (1) to equip students with a critical understanding of the causes and implications of globalization across societies, in regional, political, economic, social, and cultural contexts, and in science and technology, (2) to provide students with effective

communication skills in a globalizing world, (3) to promote the student's ability to understand and analyze the impact of global processes on world regions: East Asia, Europe, Latin America or the Middle East, (4) to provide students with a firm grounding in theory and method for the empirical analysis of global processes in societal contexts, and (5) to enhance students' development of critical thinking and problem solving skills by immersion in an international experience. Each of the program outcomes has associated performance criteria, strategies, assessment methods and metrics.

Assessment of the five program outcomes is accomplished through a variety of methods, including portfolio evaluation, in-class performance, written assignments, case studies, field research projects, grades, and field supervisor evaluations. Assessment is conducted primarily by course instructors and the program coordinator. This information is used primarily for providing feedback to the student regarding their progress toward their degree. However, faculty gather anecdotal information and feedback from students which they discuss in meetings and use to make program adjustments. For example, the students indicated their interest in a track option focused on Africa. This feedback influenced the decision to hire an anthropologist with expertise on Africa, and to collaborate with a faculty member in the Department of Political Science who also has expertise on African history and politics.

B.S. Degree in Journalism

The B.S. degree in Journalism is housed in the Department of Communication. It is the newest degree program in the College's portfolio and received state approval in

September 2008. Even though it is only now in the process of recruiting its first entering class, several internal RIT transfer students have already enrolled the program.

The B.S. degree in Journalism has five program outcomes. Graduating students will be able to 1) understand the role of the press in society, 2) conduct research and evaluate information, 3) demonstrate writing skills that are appropriate for specific journalistic purposes, 4) understand and apply principles of visual communication appropriate for journalism, and 5) achieve career mobility.

Each of these program outcomes has associated performance criteria, strategies, assessment methods and metrics. The Program Coordinator is primarily responsible for carrying out assessment and results will be reported to the department chair on a regular basis. The assessment cycle will take place annually except for an alumni survey which will be conducted every five years.

To conclude, the Journalism degree program has defined program outcomes, methods of assessment, and course-specific learning outcomes. However, because it is a brand new degree program this assessment plan is not yet fully implemented. Data collection and assessment will take place once the first entering class enrolls in Fall 2009, beginning a continuous cycle of analysis, modifications, and review.

B.S. Degree in Philosophy

The B.S. Degree in Philosophy, housed in the Department of Philosophy, was approved by New York state in late summer 2008, too late to recruit entering students for the 2008-2009 academic year. Still, the program has attracted approximately a dozen majors made up of RIT internal transfers and double majors.

The degree program was required to present a detailed assessment plan in order to receive New York state approval. That plan is now in the process of being implemented, with complete implementation scheduled for AY 2009-2010 when the first class of entering students arrives. The assessment plan lays out a number of program objectives, outcomes, and methods of assessment. Assessment will be conducted by two groups: first, a Program Faculty Review Committee which will meet annually every summer and, second, an external Program Advisory Board that will examine course content in relation to program objectives. Finally, graduates will be polled at three, five, and ten years after graduation to determine alumni perceptions of the program and its success in helping them meet career objectives.

Currently, the Program Faculty Review Committee is scheduling its first meeting, the Program Advisory Board is in the process of being formed, and data from classes is being collected. Because the program is only six months old, there is not enough data to draw any conclusions regarding program outcomes. Further data collection and assessment will take place once the first entering class enrolls, beginning a continuous cycle of analysis, modifications, and review.

B.S. Degree in Professional & Technical Communication

The B.S. Degree in Professional & Technical Communication (PTC), housed in the Department of Communication, is one of the most established degree programs in the College of Liberal Arts. It has awarded the B.S. degree since 1986.

The PTC program is involved in a process of continuous assessment and improvement in response to student and employer input, alumni surveys, co-op evaluations, and portfolio reviews, among other methods.

The Department has identified six program outcomes for PTC. Graduating students should be able 1) to conduct scholarly research, 2) to write proficiently in a professional field, 3) to speak publicly and proficiently, 4) to pursue graduate study, 5) to communicate proficiently using visual media, and 6) to have the skills to achieve job mobility. Each of these outcomes is associated with specific performance criteria, strategies, methods and metrics. Some metrics are assessed annually while others, particularly involving alumni, are assessed every three or five years.

To take one example the 2007 Alumni survey found high levels of satisfaction among graduates. In response to questions concerning "personal growth," departmental culture, and preparation for the job market and graduate school, responses were uniformly positive. Satisfaction with the department was scored on a 5 point scale ranging from 5=very satisfied to 1=very dissatisfied. For all nine questions, the mean score was above 4.0 and standard deviation was below 1.0. Median scores were either 4.0 or 5.0 in every case. In general, 62% of alumni reported that their degree prepared them "exceptionally well" (17.5%) or "more than adequately" (44.3%) for their current

occupation. In addition, 80% of alumni who attended graduate school reported that they were "exceptionally well" prepared for graduate work.

In response to these and other assessments, the PTC faculty have made the following recommendations and changes to the program.

- Concerning Program Outcome #1, "To be able to conduct scholarly research," in response to the assessment methods "student performance in relevant [theories and research] courses; review of written theses; [and] alumni surveys," the faculty revised the required courses to include Rhetorical Theory and Critical Research Methods.
- Concerning Program Outcome #2, "To write proficiently in a professional field," in response to assessment methods "Critique and grading of writing in all courses [and] portfolio reviews," the faculty revised the department's Writing Policy and instituted an annual Senior Portfolio Review Day, to encourage superior professional writing and high-quality portfolios.
- Concerning Program Outcome #6, "To have the skills and ability to achieve job mobility," in response to assessment method "Alumni surveys," currently the faculty are considering a redesign of the curriculum to offer three communication "tracks": in Professional Communication, in Technical Communication, and in Communication and Media Studies. This new curricular model, at present only in the discussion stage, is intended to offer students the opportunity to focus their studies more sharply within a professional field while still allowing for flexibility in the choice of professional core courses from outside the College of Liberal Arts.

B.S. Degree in Psychology

The B.S. Degree in Psychology is housed in the Department of Psychology. This program was approved in 1996 and currently 150 students are enrolled.

The Department of Psychology has articulated seven program outcomes for its B.S. Degree. Upon graduation, students will (1) demonstrate the ability to think critically about theories and results in psychology, (2) be able to conduct a literature search, and succinctly summarize literature related to a topic in psychology, (3) demonstrate effective written communication skills, (4) demonstrate effective oral (or signed as appropriate) communication skills, (5) demonstrate an understanding of the behavior of individuals and small groups, (6) be able to use appropriate quantitative tools to explore and understand behavioral data, and (7) demonstrate the ability to define a research problem, apply appropriate research methods and analysis, and communicate results to a broad audience. Each of the program outcomes has associated performance criteria, strategies, assessment methods and metrics.

Assessment of these outcomes is the responsibility of faculty in the Psychology Department. It is accomplished primarily through evaluation of a Senior Project and administration and analysis of an alumni survey. Although the department does not include specific data in its report, it has used the information to make modifications to its program. For example, the Senior Project course was modified to align more closely with the actual time frame needed by most students to complete their projects. In addition, the Department added a Cognitive Psychology requirement to the degree program.

M. S. Degree in School Psychology

The M. S. Degree in School Psychology is housed in the Department of School Psychology. This graduate degree program was established in 1986 and currently enrolls 48 students. The M.S. Degree in School Psychology is approved by the National Association of School Psychologists (NASP), and has recently revised its assessment plan at the request of the NASP Program Review Board.

The Department of School Psychology has stated its four program outcomes as a set of overarching goals, with associated objectives. The goals of the M.S. Degree in School Psychology are (1) students will develop a professional identity as a school psychologist whose conduct is consistent with NASP and APA (American Psychological Association) ethics codes, and best practices, (2) to develop student competency in the application of scientifically-based psychological research to matters affecting education generally, and to those of individual stakeholders, (3) students will develop competency in selecting, administering, and interpreting psychological and educational assessment data, and (4) students will demonstrate competency in academic and social emotional interventions. Student attainment of these goals is assessed using a variety of methods and data sources.

Assessment of student performance and progress towards goals is accomplished via in-class evaluation and course grades, evaluation of professional products through a second-year portfolio evaluation and third-year case study, quarterly ratings by field supervisors, quarterly formative review and annual student reviews, completion of the PRAXIS School Psychology exam, and semi-annual administration of an alumni survey. The faculty in the Department of School Psychology review data on a quarterly basis to

determine student progress and provide feedback, and on an annual basis to discuss the overall performance of the program in facilitating student achievement of outcomes. At this annual meeting, faculty discuss possible program changes in response to the information collected. Examples of adjustments made at these meetings were revising the timelines for thesis completion and developing a mechanism for helping students cultivate a higher level of professionalism.

B.S. Degree in Public Policy

The B.S. Degree in Public Policy is housed in the Department of Science, Technology & Society/Public Policy. It is a relatively new degree program in the College of Liberal Arts, graduating its first students in 2003. In AY 2008-2009 there are 23 students enrolled in the B.S. program, including students enrolled in a B.S./M.S. option.

The Public Policy degree program has a detailed assessment plan that permits a process of continuous assessment and improvement. As Jamie Winebrake, the chair of the program writes, "we evaluate our courses and students regularly and meet numerous times each year to assess our courses and 'tweak' them to improve the curriculum." Assessment data are collected from alumni surveys, senior project assessments and exit interviews, among other sources.

The Public Policy faculty have identified seven program outcomes with associated performance criteria, strategies, assessment methods, and metrics. Graduating students should be able to 1) explain key concept in the field of public policy, 2) apply a variety of quantitative methods to analyze policy decisions, 3) apply a variety of

qualitative methods to analyze policy decisions, 4) communicate at a high level, both orally and in writing, 5) explain the connections between public policy, science, and technology, 6) apply policy analysis methods to a particular area, and 7) define and carry out a research project from start to finish. The Program Coordinator is primarily responsible for assessment and reports on a bi-annual basis to the program faculty.

In response to ongoing assessment the program has made the following recommendations: 1) to increase emphasis on the senior project development process, 2) to increase faculty size and 3) to enhance the diversity of public policy colloquia options. As a result, the program has improved the proposal writing and development process for senior projects, requested new tenure track lines from the Institute, and increased the number and range of colloquia in order to highlight the various connections between public policy, science, and technology.

M.S. Degree in Science, Technology & Public Policy

The M.S. Degree in Science, Technology & Public Policy is housed in the Department of Science, Technology & Society/Public Policy. It is a relatively new degree program in the College of Liberal Arts, graduating its first students in 2003. In AY 2008-2009 there are 20 students enrolled in the M.S. program, including students enrolled in joint B.S./M.S. program with the College of Engineering. Students in this program graduate with a B.S. in Mechanical Engineering and an M.S. in Science, Technology & Public Policy.

The Science, Technology & Public Policy program has a detailed assessment plan that permits a process of continuous assessment and improvement. Assessment data are collected from alumni surveys, master's thesis assessments and exit interviews, among other sources.

The Public Policy faculty have identified seven program outcomes with associated performance criteria, strategies, assessment methods, and metrics. Graduating students should be able to 1) explain key concept in the field of public policy, 2) apply a variety of quantitative methods to analyze policy decisions, 3) apply a variety of qualitative methods to analyze policy decisions, 4) communicate at a high level, both orally and in writing, 5) explain the connections between public policy, science, and technology, 6) apply policy analysis methods to a particular area, and 7) define and carry out a research project/thesis from start to finish. The Program Coordinator is primarily responsible for assessment and reports on a bi-annual basis to the program faculty.

In response to ongoing assessment the program has made the following recommendations: 1) to increase information on public administration to students, 2) to

enhance the economics aspects of the curriculum, 3) to further emphasize the various relations between science, technology, and public policy and 4) to increase faculty size. As a result, the program has added a new core course entitled “Public Administration and Management,” introduced a new graduate level economics course (and requested a new faculty line in this area) and moved the course “Science, Technology and Policy” into the core. Finally, the department is also developing a course on Engineering and Public Policy.

B.S. Degree in Urban and Community Studies

The B.S. Degree in Urban and Community Studies is housed in the Department of Sociology and Anthropology. It is a new program, having received state approval in the summer of 2006. Currently 12 students are enrolled in the B.S. program in Urban and Community Studies.

The B.S. Degree in Urban and Community Studies has six program outcomes. These include (1) students will develop theoretical understandings of cities in both global and regional contexts, and acquire a thorough appreciation of social thought and analysis, (2) to promote student understanding of urban and community development, (3) students…will consider the impacts of globalization and their implications for international, national, and local planning practice, (4) students will understand the practical implications of how urban and regional communities are organized with respect to ethnicity, race, class, and gender, (5) students will have exceptional training in quantitative and computer skills, and (6) students will gain real-world experience through fieldwork in local agencies and organizations, and summer- or quarter-long internships or co-ops in both public and private settings throughout the United States and internationally. Each of the program outcomes has associated performance criteria, strategies, assessment methods and metrics.

Assessment of the five program outcomes is accomplished through a variety of methods, including portfolio evaluation, in-class performance, written assignments, case studies, field research projects, grades, and field supervisor evaluations. Assessment is conducted primarily by course instructors and the program coordinator. This information is used primarily for providing feedback to the student regarding their progress toward their

degree. Due to the newness of the Urban and Community Studies program, its assessment plan has not yet been fully implemented.