

NEW YORK STATE EDUCATION DEPARTMENT

Office of Higher Education—Office of College and University Evaluation

89 Washington Avenue, Albany, NY 12234



Request to Change or Adapt a Registered Program	
Item	Response <i>(type in the requested information)</i>
Institution name and address	<p>ROCHESTER INSTITUTE OF TECHNOLOGY</p> <p>1 Lomb Memorial Drive</p> <p>Rochester, New York 14623</p> <p><i>Additional information:</i></p> <ul style="list-style-type: none"> ▪ Specify campus where program is offered, if other than the main campus:
Identify the program you wish to change	<p>Program title: Computer Aided Drafting Technology</p> <p>Award (e.g., B.A., M.S.): A.O.S.</p> <p>Credits: Convert 106 quarter hours to 76 semester hours</p> <p>HEGIS code: 5303</p> <p><u>Program code</u>: 22974</p>
Contact person for this proposal	<p>Name and title: Christine M. Licata, Senior Associate Provost</p> <p>Telephone: 585-475-2953 Fax: 585-475-4460</p> <p>E-mail: cmlnbt@rit.edu</p>

<p>CEO (or designee) approval</p> <p><i>Signature affirms the institution's commitment to support the program as revised.</i></p>	<p>Name and title: Jeremy Haefner, Provost and Sr. Vice President for Academic Affairs</p> <p>Signature and date:</p>
	<p>If the program will be registered jointly¹ with another institution, provide the following information:</p>
	<p>Partner institution's name:</p> <p>Name and title of partner institution's CEO:</p> <p>Signature of partner institution's CEO:</p>

Program Conversion Documentation

This form and accompanying tables should be used for conversion of all RIT programs: Associate, Baccalaureate, Masters, Ph.D., Dual Degree, Certificates and Advanced Certificates. This documentation will be used by the RIT curriculum review bodies and NYSED.

This form should also be used for program discontinuance. In the case of discontinuance, complete Section 1(H) ONLY and follow RIT Policy on Discontinuance (E 20) as appropriate.

Directions: Using the spaces and tables provided in this form, please respond to Section 1 (A-H) and Sections 2-5.

Note: In addition to responding to Section 1 (A-H) through Section 5:

- If you are proposing to change the title of your program please list the old and new program titles on the first page of this document and fill in section 1 (C) with the old and new program titles.
- If your program conversion involves converting a current dual degree program to the semester calendar, please also provide information requested in **Section 1(I)**.
- If your program conversion involves merging or consolidating one of more existing programs into a new program, please provide information requested in **Section 1(J)**.
- Use the program as currently registered with NYSED as the basis from which you describe changes. The last registered version of any program is available from Christine Licata, Sr. Associate Provost.
- Text boxes on this form and on Tables 1, 2 and 3 will expand as you type in them.

Documentation submission:

1. Submit required documentation as a total package to RIT curriculum review bodies.
2. Attach Table 1, Table 3 and Program Level Outcomes Assessment Plan as part of this package. (Directions for completion follow within this document.) There are links in this document to these required tables.
3. Table 2 is imbedded within this form and does not require a separate attachment.
4. Complete the document log on the last page of each “deliverable” before submitting the packet to the appropriate curriculum review body.

If you have questions or need assistance, please contact either your Associate Dean or:

- Charles Border, Chair, ICC
 - 475-7946, cbbics@rit.edu
- Ag Crassidis, Chair, Grad Council
 - 475-4730, alceme@rit.edu
- Christine Licata, Sr. Associate Provost
 - 475-2953, cmlnbt@rit.edu

1. RIT Program Conversion: Overview of Proposed Changes

Describe how program faculty used the calendar conversion process as an opportunity to revise and improve the program.

Program Improvements

The NTID Department of Engineering Studies' (DES) supports the efforts for "quarter to semester" conversion which leads to sufficient program improvement for the best interests of students, faculty, and the workforce. The benefits for the curriculum conversion are additional instructional time to expand the curriculum into areas such as sustainability. Expanding the curriculum allows skills to be strengthened, which increases chances for employment, and extends time for learning opportunities such as student innovation projects.

These benefits will potentially increase and facilitate opportunities for collaborative academic programs, transferability, articulation agreements between the NTID Department of Engineering Studies and other programs, departments, or colleges throughout Rochester Institute of Technology or other Universities. Once the opportunities are taken advantage of, this could potentially increase scholarship work and engage faculty/student innovation projects throughout DES.

By revising the existing curriculum and converting to a semester curriculum format, the DES seeks to take advantage of the opportunity to develop innovative new programs, improve overall academic efficiencies, solidify our technical and career education contents, and prepare our students to become more competitive in the workforce.

Describe how your converted program responds to the RIT Academic Program Profile (see RIT Academic Program Profile: (<http://www.rit.edu/conversion/media/documents/secure/ProgramProfile.pdf>)). How have you integrated the appropriate Essential Program Learning Outcomes from this profile into your program? Please also include these outcomes in your Program Level Assessment Plan in Section 3 of this form.

Academic Program Profile

The essential goal of the Computer Aided Drafting Technology program is to prepare students for a lifetime of learning as a technician in the Architecture, Engineering and Construction industry. Students will gain a wide range of skills and knowledge related to AEC, and will be prepared to gain entry-level employment within the AEC industry. The curriculum is designed to foster the development of both hard and soft skills that students will need to begin a successful career. These goals of the CADT program will not only continue, but will be expanded with the semester conversion.

The changes to the curriculum along with the development of the Program Level Outcomes Assessment Plan were designed to incorporate a broader view of the CAD profession in the construction industry. Specifically, based on feedback from the CADT Industrial Advisory Group, the CADT program will integrate instruction in Building Information Modeling (BIM), which is a significant extension on basic CAD (i.e. drafting). In other areas of technical education, expanded instruction in blueprint reading, researching technical information and sustainability will be included. Finally, the curriculum is being revised to incorporate the five Essential Program Learning Outcomes from the RIT Academic Program Profile.

Critical Thinking: Creating a Building Information Model (BIM) is much like constructing the actual building. Students must use their knowledge and skills to select the appropriate components and construction materials. Beyond developing the model, students will need to determine the best

strategy to generate construction documents including plans, elevations, sections and details. Students will also be given an opportunity to engage in some research to help them make decisions related to accessibility and safety when developing their project.

Ethical Reasoning: Students will learn the purpose of building codes and how the codes help to facilitate design decisions related to accessibility and safety. In particular, the deaf students will explore accessibility for the hearing impaired such as limiting visual barriers, window placement and various technological advances that could enhance accessibility. Students will learn the importance of sustainability in the construction industry and the ethical reasons for pursuing such goals. In addition to technical skills, students will develop soft-skills to facilitate on-the-job ethical behavior.

Integrative Literacies: Good, clear communication is a critical skill for the successful technician. Students will learn the proper use of technical vocabulary and how to communicate technical information through the printed or electronic document as well as live presentations. Also, students will use their math skills frequently in this program to calculate various measurements, to determine locations, to interpret scales, and to generate reports.

Global Interconnectedness: The AEC industry has become increasingly devoted to issues related to sustainability, energy and conservation. The students in our program will learn about these issues and how they impact the design and construction of buildings. Also, students will learn about some of the different cultural designs as related to architecture and civil engineering.

Creative/Innovative Thinking: All students will engage in a final “capstone” design project during their final semester in the program. Students will be given some project guidelines and criteria, and they work together as a team to develop the project using their BIM skills. Furthermore, these students will produce presentation graphics in order to give a presentation of their project design to an audience of their peers. Also, throughout the program, students will develop, maintain and update their portfolio in both hard-copy and electronic (web-based) formats.

For a more complete course-level description of how the five Essential Program Learning Outcomes are being incorporated, see the attached **Program Level Outcomes Assessment Plan**.

NYSED

Program Goals, Objectives, Focus and/or Design

Have there been changes to the goals, objectives, focus and /or design of the program?

	No changes
X	Slight-moderate changes
	Substantive changes (e.g., substantial change in the focus and design of the program; change of 1/3 or more in program outcomes/objectives and accompanying content of the program).

Explain any proposed changes, the rationale for these changes, the impact of changes on the capacity of current faculty to deliver the revised program, impact, if any, on current admissions standards and the expected impact on enrollment projections. Enrollment Projection changes should be provided by EMCS, as appropriate.

It is the sentiment of the Computer Aided Drafting Technology (CADT) faculty that the current program, while advertised as preparing students as support technicians for either the architectural, engineering or construction (A/E/C) professions was heavily biased towards architectural studies. By infusing more civil and construction related content into the curriculum we intend to give graduates a broader palette of

skills to market upon graduation.

CADT specific instruction will begin immediately in the first semester as opposed to the current mask where students take two quarters of common engineering courses prior to declaring their interest in a specific major. A review of the program masks shows an elimination of three of the four common courses within the first year of studies namely: "Engineering Fundamentals", "CAD Applications", and "Manufacturing Processes". Common courses were developed five years ago when the department consisted of three programs, Automation Technology, Computer Aided Drafting Technology, and Computer Integrated Machining Technology. Automations Technology has since been slated for discontinuance. The faculty within the Computer Aided Drafting Technology (CADT) and Computer Integrated Machining Technology (CIMT) programs have noted during departmental discussions the inefficiencies of offering common courses within career areas that require distinctly different skills.

Students will begin with traditional AutoCAD training. The course "Engineering Graphics" will focus on the use of CAD as a two-dimensional drafting tool used primarily to create construction documentation. Subsequent Construction CAD courses will make exclusive use of building information modeling (BIM) software. BIM represents a significant technological change in how a construction project is created in that documentation is derived from a single 3-D parametric model. The term parametric describes a process in which an element is modified and an adjacent element(s) is automatically modified to maintain a previously established relationship. For example, if a wall is moved, perpendicular walls would modify (grow or shrink in length) to remain attached to the related wall. Traditional drafting views (elevation, sections, etc.) are generated from the parametric model and any modification or deletion in one view is automatically reflected in all other views.

Also within the first year of studies, faculty propose expanding the content of the current "A/E/C Measurement Systems" course to include blueprint reading skills and rename the course, "Data Collection and Analysis". A new course called "Civil Technology Graphics" will be added in the second semester of the first year to add more balance to the curriculum as mentioned above.

Computing Tools for Engineering Technology will be retained as a foundation course for all programs within DES that choose to use it. This course will give students training in Microsoft Office software packages as well as exposure to Adobe Photoshop. Photoshop was cited recently by the CADT program's Curriculum Advisor Group as one of the top five software packages a student should know upon completion of the program. Similarly, on a recent co-op visit to the City of Los Angeles Department of Public Works, the architectural professional that provided mentoring to several of our students noted Photoshop skills as necessary for a competent CAD technician.

In addition, building code content as it pertains to the effective functioning of a CAD technician in a professional office will be incorporated into the Principles of Structural Systems course. CAD students should have a sense of how structural systems are selected for a given project. Part of the decision is based on fire protection requirements. Students should understand the meaning of various fire ratings and how to achieve these ratings through the selection of materials and development of details. CAD technicians are not expected to be code experts in a professional environment; therefore the stand alone Construction Regulations course will be eliminated.

The CADT program proposes consolidating the content from the NTID Interdisciplinary Studies course "Job Search Processes" with activities that occurred concurrently within the Construction CAD sequence. Skills such as resume and cover letter development, identifying and researching regional locations for employment, making initial contacts, interviewing skills, etc. will be expanded to include improving technical communication skills and developing both a hard portfolio and an online presence using portfolio templates. Instructional delivery for this course will be team taught by a staff representative from NTID Center on Employment (NCE) staff and technical faculty from the CADT program

Principles of Structural Systems will be expanded to allow more time for wood frame construction, to

introduce rudimentary statics topics and to expose students to the impact building codes have on structural system selection and fire protection.

Site Utilities, Mechanical and Electrical Systems for A/E/C will be renamed “MEP Systems”. MEP is a widely accepted acronym that refers to the design and construction of the mechanical, electrical and plumbing systems that are incorporated into any construction project. The MEP systems course will be expanded to incorporate topics related to sustainability. Students should be aware of the US Green Building Council rating system, how construction projects can achieve LEED Certification and the positive impact green construction has on the environment.

The current faculty have strong backgrounds in architecture and urban studies. Mandated by New York State licensing requirements, professional architects are required to participate in professional development activities in order to renew their license on a three year basis. Health, safety and welfare studies and sustainability studies are an integral component of licensing renewal. In addition, the American Institute of Architects requires 18 learning units of professional development per year making their criteria for membership even more stringent than New York State. These mandated education programs at the national and state level along with continued self study will prepare the current faculty for the proposed curricular changes.

B. Program Options or Concentrations (i.e., a specific group of related courses that lead to greater understanding in a field or discipline).

X	No changes to options or concentrations
	Kept current option(s)/concentrations with some revisions
	Added an option(s)/concentration(s)
	Title of new option(s)/concentration(s)
	Eliminated option(s)/concentration(s)

Explain these proposed changes and the rationale for these changes:

C. Program Title

X	No change in program title
	New program title proposed New program title: Old program title:
	Explain the rationale for any proposed change in program title:

D. Elimination of a requirement for completion (e.g. requirements to be eliminated might include an internship, clinical, cooperative education or other work-based experience).

X	No change in requirements
	Change made to program completion requirements

Describe any change proposed and the rationale for the change:

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E. Change in program award (e.g. BFA to BS, MBA to MS, etc).

X	No change in program award
	Change in program award

Describe any proposed change and the rationale for the change:

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F. Mode of delivery (e.g. adding distance education format).

X	No change in mode of delivery
	Change in mode of delivery

Describe the change proposed and the rationale for the change:

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G. Format Change (a change that alters the program's financial aid eligibility; e.g. from full-time to part-time, or to an abbreviated or accelerated semester format).

X	No change in format
	Proposed change in format

Describe the proposed change in format and any change in availability of courses, faculty, resources or support services that this proposed format change requires:

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H. Discontinuing a Program

X	No discontinuance
	Proposed discontinuance

Indicate the date by which the program will be discontinued and reason for discontinuance action:

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I. Dual-Degree Program

a) Complete the following table to identify the existing programs:

	Program Title	Degree Award	Program Code
Program 1			
Program 2			

b) Proposed dual-degree program (title and award):

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c) Courses that will be counted toward both awards:

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d) Length of time for candidates to complete the proposed program:

e) Use the Sample Program Schedule in [Table 1](#) to show the sequencing and scheduling of courses in the dual-degree program.

J. Creating a new program by merging or consolidating with one or more existing programs and basing the new program entirely on existing courses converted to semester calendar

a) Provide Current Program Name(s) and Program Code(s)

b) Brief description of proposed program and rationale for converting the existing coursework to a separately registered program.

c) Brief description of the expected impact on existing program(s).

d) Adjustments the institution will make to its current resource allocations to support the newly created program.

e) Statement confirming that the admissions standards, process and evaluation methods are the same as those in the existing program.

2. Program Course Mask and Schedule

Directions:

- a. Using [Table 1](#), display program course sequencing by semester. Use the table to show how a typical student may progress through the program.
- b. Using **Table 2** (which follows below), display program in the quarter calendar and how program has been converted to the semester calendar. Please follow the course conversion designation directions on Table 2.

Table 2

Program Course Conversion Table: Quarter Calendar and Semester Calendar Comparison

Name of Program: **Computer Aided Drafting Technology** Degree: **AOS**

Directions: Use the following legend to show course comparison in quarter calendar and semester formats. Display all required program courses and program-specific elective courses. Display General Education course requirements with generic label (not each course) of "Liberal Arts and Sciences" = X Credits. Clarify how course sequences in the quarter calendar convert to semesters by either bracketing or using some other notation.

Course Conversion Designations

Semester Equivalent (SE) – Closely corresponds to one quarter course (e.g., a 4 quarter credit hour (qch) course which becomes a 3 semester credit hour (sch) course.) The semester course may develop material in greater depth or length, but no new content is added. Identify the number and the title of the quarter course being converted.

Semester Replacement (SR) – A semester course (or courses) taking the place of previous a quarter course(s) by rearranging or combining material from a previous quarter course(s) (e.g. a two semester sequence that replaces a three quarter sequence). List the new semester course or sequence and the old quarter course or sequence it is replacing. For all SR designations, if additional space is needed to describe the distribution of content among courses, use space provided in the last column.

New (N) - No corresponding quarter course(s). This course adds significant new curriculum content.

Course Deleted (D) – No corresponding semester course.

Year	QUARTER: Current Program Courses			SEMESTER: Converted Program Courses			Course Conversion Designation	
	Course #	Course Title	Q C H	Course #	Course Title	SC H	Course Conversion Designation SE, SR, N, D	Additional comments on content distribution within semester courses
1	0813-220	Engineering Fundamentals	4	NCAD-112	Computing Tools for ET	3	D	Course to be retained for other ES programs Adding new content in website development Course to be retained for other ES programs Course to be retained for other ES programs Adding new content in blueprint reading From Year 2, was 0884-220 Moved to Year 2 as NSCI-154
	0890-212	Computing Tools for ET	4					
	0813-222	Manufacturing Processes	4					
	0890-214	CAD Applications in ET	4					
	0890-210	Construction CAD I	4	NCAD-150	Engineering Graphics in AEC	3	N	
	0890-208	A/E/C Meas. Systems	2	NCAD-170	Construction CAD I	3	SE	
	---	---	---	NCAD-108	Data Collection and Analysis	3	SE	
	0887-200	Freshman Seminar	2	NCAD-180	Civil Technology Graphics	3	N	
	0884-180	Foundations of Algebra	4	NCAR-100	Freshman Seminar	1	SE	
	0884-212	Integrated Algebra	4	NMTH-212	NTID LAS Foundation – Math (Int. Algebra)	3	D	
	0884-185	Fundamental Geometry	1				SE	
	0883-210	Nonfiction Reading III	4	NMTH-220	Trigonometry	3	D	
	0883-211	Writing III	4				SE	
	0885-185	Physics of Matter	3	NENG-212	NTID LAS Foundation - Career English I	3	D	
	0883-200	Analyzing Literature	4	NENG-213	NTID LAS Foundation - Career English II	3		
1105-xxx	PE Wellness	0	xxxx-xxx	NTID LAS Foundation: ASL/Deaf Culture	3	D		
			xxxx-xxx	PE Wellness	0			

2	0890-220	Construction CAD II	4	NCAD-220	Construction CAD II	3	SE	
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	0890-255	Constr. Matl & Meths I	3	NCAD-255	Constr. Matl & Meths I	3	SE	Adding new content in sustainability Adding new content in building codes Adding new content in portfolio development Moved to Year 3 as NCAD-240 Name change, added content in sustainability From Year 2, was 0885-185 Moved to Year 1 as NMTH-220
	0890-230	Construction CAD III	4	NCAD-230	Construction CAD III	3	SE	
	0890-265	Const. Matl & Meths II	3	NCAD-265	Const. Matl & Meths II	3	SE	
	0890-275	Principles of Structural Systems	3	NCAD-275	Principles of Structural Systems	3	SE	
	0806-101	Job Search Processes	2	NCAD-201	Job Search Process for CADT	3	SE	
	0890-310	Adv. Construction CAD	4					
	0890-280	GIS Fundamentals	3	NCAD-280	GIS Fundamentals	3	SE	
	0890-355	Site Utils. Mech/Elec. Systems	3	NCAD-285	MEP Systems	3	SE	
				NSCI-154	NTID LAS Perspective – Scientific Processes (Physics of Matter)	3	SE	
	0884-220	Elements of Trigonometry	4					
	0880-xxx	Humanities	3					
	0880-xxx	Communication Studies	3					
	0802-xxx	Social Science	3					
	08xx-xxx	Deaf Studies/ASL	3					
				xxxx-xxx	NTID LAS Perspective – Communication, Social and Global Awareness	3		
	1109-xxx	PE Activities	0	xxxx-xxx	PE Wellness	0		
	NCAD-299	Co-op Work Experience	0	NCAD-299	Co-op: CADT	0		
3	0890-320	Presentation Graphics	4	NCAD-240	Advanced Construction CAD	3	SE	From Year 2, was 0890-310
	0890-375	Construction Regulations	3	NCAD-250	Presentation Graphics	3	SE	
	08xx-xxx	Technical Elective	3	xxxx-xxx	Technical Elective	3	D	
	0882-296	Capstone	3				SE	
				xxxx-xxx	NTID LAS Perspective – Creative & Innovative Exploration	3		
				xxxx-xxx	Gen. Ed. Elective	3		
N/A	0890-216	Design, Dim & Tolerancing	3					Course to be retained for other ES programs
	0890-399	Independent Study	1-5	NCAD-199	Independent Study	1-5	SE	
	0890-398	Special Topic	1-5	NCAD-289	Special Topics	1-5	SE	
		Total	106		Total	76		

3. Program Level Outcomes Assessment Plan

See Program Outcomes Assessment [Overview and Directions](#) for guidance, required form, and sample plans.

<input checked="" type="checkbox"/>	a. Attach updated Program Level Outcomes Assessment Plan which should include how your program meets the RIT Essential Program Outcomes outlined in the RIT Academic Program Profile . b. Program Assessment Plan should follow one of the formats found at: Program Level Outcomes Assessment Plan Blank Form Option 1 <i>Program Level Outcomes Assessment Plan Blank Form Option 2</i> <i>Program Level Outcomes Assessment Plan Blank Form Option 3</i>
<input checked="" type="checkbox"/>	c. Complete information requested in Table 3 for Middle States. (See: Sample Completed Form for guidance and other information.)

4. RIT Incremental Resources (faculty, space, library holdings, equipment, other)

It is not expected that significant incremental resources will be required to deliver the same program outcomes in a semester format. If you believe that incremental resources are required, please explain.

Additional lab space is needed to effectively include curriculum in sustainability, energy and conservation as related to the construction industry.

5. RIT Course Outlines

Course outlines for all required courses offered by the program and any program-specific electives must be deposited in the course outlines-final PDF module using the proper naming conventions. Use the RIT [Course Outline Form](#).

For guidance on assignment of appropriate credit hour/contact hour designation, please refer to: <http://www.msche.org/documents/Degree-and-Credit-Guidelines-062209-FINAL%5B1%5DDec09.pdf>

Programform.doc

NYSED Documentation Form

Audience

This document is intended for all department chairs and program directors.

Summary

This document includes the information and required forms for submission of program to NYSED for semester conversion.

Change Log

Responsible	Date	Version	Short description
Chris Licata	6/15/2010	1	Document originator
Jim Fugate	8/15/2010	2.1	Updated and posted document
Jim Fugate	8/18/2010	2.2	Added Bill's comments and modified course names
Jim Fugate	8/30/2010	3	Made modifications based on comments from Marianne Gustafson
Jim Fugate	10/19/2010	4	Included modifications to Program Goals, Objectives, Focus and/or Design based on feedback from Marianne Gustafson and Bill LaVigne
Jim Fugate	10/22/2010	4.1	Minor modification to Table 2
Jim Fugate	12/17/2010	5	Revised General Education
Jim Fugate	3/17/2011	6	Revised Gen. Ed. Labels

Table 1a: Undergraduate Program Schedule

Computer Aided Drafting Technology - AOS

Indicate academic calendar type: X Semester Quarter Trimester Other (describe)

Term: Fall 1		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-112 Computing Tools for ET	3		✓		None	
NCAD-150 Engineering Graphics in AEC	3		✓	✓	None	
NTID LAS Foundation – NENG-212 Career English I	3	✓				
NTID LAS Foundation – ASL/Deaf Cultural Studies*	3	✓				
NTID LAS Foundation – Math (NMTH-212 Integrated Algebra)	3	✓				
NCAR-100 Freshman Seminar	1					
Term credit total:	15	9	6			
Term: Spring 1		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-170 Construction CAD I	3		✓		None	
NCAD-108 Data Collection and Analysis	3		✓		None	
NCAD-180 Civil Technology Graphics	3		✓	✓	None	
NMTH-220 Trigonometry	3		✓		NMTH-212	
NTID LAS Foundation –NENG-213 Career English II	3	✓			NENG-212	
xxxx-xxx PE-Wellness	0					
Term credit total:	15	3	12			
Term: Fall 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-220 Construction CAD II	3		✓		NCAD-108, NCAD-170	
NCAD-255 Constr. Materials & Methods I	3		✓		NCAD-108, NCAD-170	
NCAD-275 Principles of Structural Systems	3		✓		NCAD-108, NCAD-170	
NTID LAS Perspective – Scientific Processes (NSCI-154 Physics of Matter)	3	✓			NMTH-180	
NCAD-201 Job Search Process for CADT	3		✓			
xxxx-xxx PE – Wellness	0					
Term credit total:	15	3	12			
Term: Spring 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-230 Construction CAD III	3		✓		NCAD-220, NCAD-255	
NCAD-265 Constr. Materials & Methods II	3		✓		NCAD-255	
NCAD-285 MEP Systems	3		✓		NCAD-220	
NCAD-280 GIS Fundamentals	3		✓		None	
NTID LAS Perspective – Communication, Social and Global Awareness	3	✓				
Term credit total:	15	3	12			
Term: Summer 2		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-299 Co-op: CADT	0		✓		NCAD-201	
Term credit total:	0	0	0			
Term: Fall 3		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
NCAD-240 Adv. Construction CAD	3		✓		NCAD-230, NCAD-265, NCAD-275, NCAD-285, NCAD-250 (co-req)	
NCAD-250 Presentation Graphics	3		✓		NCAD-240 (co-req)	
Technical Elective **	3		✓			
NTID LAS Perspective – Creative & Innovative Exploration	3	✓				
NTID LAS Elective	3	✓				
Term credit total:	15	6	9			
Term:		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Term credit total:						
Term:		Check course classification (s)				
Course Number & Title	CR	LAS	Maj	New	Prerequisite(s)	
Term credit total:						
Program Totals:	Credits: 76	Liberal Arts & Sciences: 24			Major: 51	Elective & Other: 1

Cr: credits LAS: liberal arts & sciences Maj: major requirement New: new course Prerequisite(s): list prerequisite(s) for the noted courses

* NHSS-150 Deaf Perspectives on Contemporary Civilization or NASL-190 American Sign Language I

****Technical Elective:** Choose one from the following list of courses, or by departmental approval.

NAIS-120 Principles of Design and Color

NAIS-130 Raster and Vector Graphics

NHSS-223 Scenic and Lighting Technology

CVET-140 Materials of Construction & CVET-141 Materials of Construction Lab (permission required)

CVET-160 Surveying & CVET-161 Surveying Lab (permission required)

Table1.doc

Program Course Mask and Schedule

Audience

This document is intended for all department chairs and program directors.

Summary

This document is the table for the program course mask and schedule.

Change Log

Responsible	Date	Version	Short description
Chris Licata	6/15/2010	1	Document originator
Jim Fugate	8/18/2010	2	Revised Course Names
Jim Fugate	10/5/2010	3	Updated course numbers and general education
Jim Fugate	10/21/2010	4	Updated prerequisites
Jim Fugate	11/17/10	5	NCC Feedback
Jim Fugate	12/17/2010	6	Revised General Education
Jim Fugate	3/17/2011	7	Revised Gen. Ed. Labels

TABLE 3

Use of Program Level Assessment Data to Inform Calendar Conversion

Program Name/College Computer Aided Drafting Technology / NTID

Program Assessment Contact Dino Laury (Chair) & James Fugate (Assessment Coordinator)

Describe how you used the results from your current program level outcomes assessment plan to inform proposed changes to your program made as part of the conversion to semesters.

Changes to Curriculum (program focus, content, requirements, course inventory, etc.)	Data Source (2009-10) List data, measures, findings, etc. used to inform change(s).
<p>The two areas of concern from the outcomes assessment plan were (1) understanding and creating dimensions and tolerances and (2) finding and incorporating technical information into drawings and documentation.</p> <p>As a result, the two primary changes made to the curriculum to address these concerns are the establishment of Blueprint Reading content and the merging of Construction Regulations into other existing courses to make it more context oriented.</p>	<p>69% of students met or exceeded the performance criteria/benchmarks for creating and adding dimensions and tolerances.</p> <p>33% of students met or exceeded the performance criteria/benchmarks for finding technical information and other source material on the Internet and incorporating the information into drawings and documentation.</p>
Changes to Instruction (pedagogy, strategies, etc.)	
<p>Students need more training in understanding and utilizing technical vocabulary and information. The curriculum in the CADT technical courses will include ongoing practice in interpreting and reciting technical information.</p>	<p>33% of students met or exceeded the performance criteria/benchmarks for finding technical information and other source material on the Internet and incorporating the information into drawings and documentation.</p>
Changes to Program Assessment Plan (outcomes, data sources, instruments, etc.)	
<p>The current Outcomes Assessment Plan was developed when the program was just beginning to shift its focus to 3-D modeling. In the semester system, 3-D modeling and the use of Building Information Modeling (BIM) technology will be the predominant focus of the program. The Outcomes Assessment Plan needs to be updated to reflect this change in program focus. Furthermore, the Program Assessment Plan was expanded to include the five Essential Program Learning Outcomes from the RIT Academic Program Profile.</p>	<p>Lack of assessment in Building Information Modeling (BIM) and the five Essential Program Learning Outcomes.</p>

Other Programmatic Changes/Comments	
Another area of change that was not directly measured from the outcomes assessment plan is the need to improve student portfolios in both hard copy and electronic form. This concern resulted in the expansion of the Job Search course so that students will receive direct instruction on developing and maintaining their portfolios.	Lack of assessment in student portfolios.

Table3.doc

Version 1

Audience

This document is intended for all department chairs and program directors.

Summary

This document is used to collect information on the use of program-level outcomes data to make improvements and changes to programs.

Change Log

Responsible	Date	Version	Short description
Anne Wahl	6/15/2010	1	Document originator
Jim Fugate	8/10/2010	2	Semester Conversion
Jim Fugate	10/21/2010	2.1	Minor modifications

Option 1

Program Level Outcomes Assessment Plan

Program Name/College: Computer Aided Drafting Technology (CADT) / National Technical Institute for the Deaf (NTID)

College Contact for Program Assessment: James Fugate (Program Assessment) & Dino Laury (Department Chair)

Program Goals	Student Learning Outcomes	Academic Program Profile	Data Source/Measure Curriculum Mapping	Benchmark	Timeline	Data Analysis Key Findings	Use of Results Action Items and Dissemination
Develop the ability to produce accurate 2-D drawings and Building Information Modeling (BIM) projects.	Use CAD to produce 2D technical drawings	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Engineering Graphics NCAD-150 Technical drawing practical Practical grade	80% of students will score 75% or better on final practical grade	Collection: annually at end of fall semester beginning AY 2013/2014 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Extract and modify orthographic technical drawings from a BIM model	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Construction CAD II NCAD-220 Final portfolio review of construction documents Portfolio grade	80% of students will score 75% or better on final portfolio review grade	Collection: annually at end of fall semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Generate reports on information contained in a BIM model	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Construction CAD II NCAD-220 Course embedded assignments Rubric scale 1-5	80% of students will score 3 or more on the rubric scale 1-5	Collection: annually at end of fall semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Create a BIM project based on preliminary information	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Advanced Construction CAD NCAD-240 Course embedded project Project grade	80% of students will score 75% or better on final project grade	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Use a BIM project as a basis to produce detailed sections and other details	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Advanced Construction CAD NCAD-240 Final portfolio review of construction documents Portfolio grade	80% of students will score 75% or better on final portfolio review grade	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports

Develop the skills to acquire, record and analyze information derived from field measurements, existing drawings and other technical documents	Create and interpret dimensions for technical drawings	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Data Collection and Analysis NCAD-108 Final dimensioning practical Practical grade	80% of students will score 75% or better on final dimensioning practical grade	Collection: annually at end of spring semester beginning AY 2013/2014 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Define appropriate technical vocabulary as used by the construction industry	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Data Collection and Analysis NCAD-108 Final vocabulary exam Exam grade	80% of students will score 75% or better on final vocabulary exam grade	Collection: annually at end of spring semester beginning AY 2013/2014 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Field measure and input existing space conditions into CAD	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Data Collection and Analysis NCAD-108 Course project Project grade	80% of students will score 75% or better on course project grade.	Collection: annually at end of spring semester beginning AY 2013/2014 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Research technical information and incorporate into drawings and documentation	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Advanced Construction CAD NCAD-240 Design project Rubric scale: 1-5	80% of students will score 3 or above on incorporating technical information into design project	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
Understand the basic characteristics of construction materials and procedures	Identify various construction materials using correct terminology	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Construction Materials and Methods II, NCAD-265 Terminology exam Exam grade	80% of students will score 75% or better on terminology exam	Collection: annually at end of spring semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Identify characteristics of common construction materials	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Construction Materials and Methods II, NCAD-265 Final Exam Exam grade	80% of students will score 75% or better on course final exam	Collection: annually at end of spring semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports

Develop the skills to create and present visualization materials	Develop and maintain a portfolio of student projects in both hard copy and electronic form	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Construction CAD III, NCAD-230 Student Portfolio Portfolio review grade	80% of students will score 75% or better on portfolio review	Collection: annually at end of spring semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Generate renderings and animations from CAD and BIM projects	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Presentation Graphics, NCAD-250 Final project Final project grade	80% of students will score 75% or better on final project grade	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Effectively prepare and present projects utilizing presentation graphics	<input checked="" type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Presentation Graphics, NCAD-250 Final project presentation Final project presentation grade	80% of students will score 75% or better on final project presentation grade	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Demonstrate creative skills on a design project	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input checked="" type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Advanced Construction CAD, NCAD-240 Design project Design project grade	80% of students will score 75% or better on design project grade	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
Understand current issues affecting the construction industry	Explain the purpose and role of building codes in the construction industry	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input checked="" type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Principles of Structural Systems, NCAD-275 Presentation Graphics, NCAD-250 Building codes exam Exam grade	80% of students will score 75% or better on building codes exam	Collection: annually at end of fall semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Identify issues related to sustainability in the construction industry	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input checked="" type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	MEP Systems, NCAD-285 Sustainability exam Exam grade	80% of students will score 75% or better on sustainability exam	Collection: annually at end of spring semester beginning AY 2014/2015 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports

Develop positive skills required to be effective on the job	Engage productively in a collaborative team project	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input checked="" type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Advanced Construction CAD, NCAD-240 Team project Self evaluation, peer review and teacher evaluation using rubric scale: 1-5	80% of students will score 3 or more on the rubric scale 1-5	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Accurately and clearly present technical information to an audience of peers	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Presentation Graphics, NCAD-250 Final project presentation Self evaluation, peer review and teacher evaluation using rubric scale: 1-5	80% of students will score 3 or more on the rubric scale 1-5	Collection: annually at end of fall semester beginning AY 2015/2016 Spreadsheet for data collection	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Apply technical knowledge and skills on a co-op work experience	<input checked="" type="checkbox"/> Critical Thinking <input checked="" type="checkbox"/> Ethical Reasoning <input checked="" type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input checked="" type="checkbox"/> Creative/Innovative Thinking	Co-op Work Experience, NCAD-299 Performance on the job RIT Supervisor Online Co-op Evaluation System	80% of students will meet or exceed overall satisfactory score on co-op job	Collection: annually at end of summer beginning AY 2014/2015 RIT Supervisor Online Co-op Evaluation System	Data collected by NTID Center on Employment (NCE)	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Gain entry level employment in the construction industry	<input type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	After graduation Job placement NCE	90% of graduates who are seeking employment in the construction industry will be employed	Collection: annually during spring beginning AY 2016/2017 Survey of graduates	Data collected by NTID Center on Employment (NCE)	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports
	Indicate satisfaction with program and courses	<input type="checkbox"/> Critical Thinking <input type="checkbox"/> Ethical Reasoning <input type="checkbox"/> Integrative Literacies <input type="checkbox"/> Global Interconnectedness <input type="checkbox"/> Creative/Innovative Thinking	Upon completion of final semester Student Satisfaction Survey Survey results	80% of students will rate all aspects of the program and courses as satisfactory or above	Collection: annually near the end of fall semester beginning AY 2015/2016 Survey results summary	Data collected by Assessment Coordinator	Shared with program faculty, annual college summary report, NTID Annual Report, and RIT requested reports