# QUEENSBOROUGH COMMUNITY COLLEGE CITY UNIVERSITY OF NEW YORK ACADEMIC SENATE REPORT

**FROM:** Lorena B. Ellis, Chair, Committee on Curriculum

**TO:** Emily Tai, Secretary, Academic Senate Steering Committee

**CC**: P. Pecorino, K. Villani, Dean K. Steele, College Archives (C.Williams)

**DATE:** August 29, 2005

**SUBJECT: Monthly Report for May 2005** 

The Curriculum Committee recommends the following for adoption by the Academic Senate:

#### **COURSE REVISION**

### Mechanical Engineering Technology

From: MT-900 Cooperative Education in Mechanical Engineering Technology and Design Drafting

1 Class hour plus appropriate work experience, 3 Credits

Open only to matriculated students who have [achieved a minimum index of 2.7 in their major field of study; have] completed at least 12 pertinent credits in the Mechanical Engineering Technology or the Design Drafting curricula; [and are recommended and approved by the chairperson of the Department and the Cooperative Education Coordinator.]

Course description: [The cooperative education experience includes employment in a field experience or internship, which supplements classroom theory and laboratory instruction with related on-the-job professional training for a specific number of hours (minimum of 90 hours per semester.) Students participate in a monthly seminar and submit a term paper or report related to the work experience. A written evaluation by the employer is also submitted.] Students receive a grade of Pass or Fail.

**To**: MT-900 Cooperative Education / Design Projects in Mechanical Engineering Technology and Design Drafting

1 Class hour plus appropriate work experience, 3 Credits

Open only to matriculated students who have completed at least 12 pertinent credits in the Mechanical Engineering Technology or the Computerized Architectural and Industrial Design curricula.

Course description: Students enrolled in the cooperative education experience are required to complete a project. Projects are formulated by the student and instructor and may include:

- employment experience or internship
- research on a topic or development of a design

Students participate in a weekly seminar and complete an additional minimum of 90 hours per semester. Students participating in internships submit complete written reports, related to the work experience. Students who complete research or design projects submit a written report containing a complete set of design prints and project descriptions. Students receive a grade of pass of fail.

**Rationale:** The Advisory Board for Mechanical Engineering Technology has strongly recommended a co-op experience for all our students. Additionally many of the curricular objectives for Mechanical Engineering Technology are better achieved by MT-900 as opposed to the currently required option, MT-344. The title, description and pre-requisites for MT-900 have been revised so that all students in the curriculum can take the course, and so the learning experience is more clearly defined.

#### **PROGRAM REVISIONS**

### Change in the Degree Program MECHANICAL ENGINEERING TECHNOLOGY

A.A.S Degree Program
A TAC/ABET ACCREDITED ENGINEERING TECHNOLOGY CURRICULUM

### Summary:

Course revisions: MT-900

**To be deleted:** Delete MT-344 as an optional required course

## FROM: REQUIREMENTS FOR THE A.A.S. DEGREE GENERAL EDUCATION CORE REQUIREMENTS

EN-101, 102 English Composition I, II MA-114 College Algebra and Trigonometry	6
for Technical Students	4
MA-128 Calculus for Technical and Business Students	4
PH-201, 202 General Physics I, II	8
SS or HI- Electives in Social Science	J
or History (HI-100 series)	6
Sub-total	24
REQUIREMENTS FOR THE MAJOR	
MT-111 Technical Graphics	2
MT-122 Manufacturing Processes	3
MT-124 Metallurgy and Materials	3
MT-125 Metallurgy and Materials Laboratory	1
MT-161 Fundamentals of Computer Numerical Control	3
MT-341 Applied Mechanics	3
MT-488 Computer-Aided Design Drafting (CAD)	3
MT-345 Strength of Materials	3

MT-346 Strength of Materials Laboratory.....

	MT-368 Computerized Laboratory Techniques in	
	Mechanical Technology	3
	[MT-344 or Computer Assisted Machine Design or]	
	MT-900 Cooperative Education	3
	MT-487 Electro-Mechanical Systems Design	3
	MT-566 Electro-Mechanical Systems Laboratory	1
	MT-513 Thermo Fluid Systems	3
	MT-514 Thermo Fluid Systems Laboratory	1
	Total Credits Required	64
TO:	REQUIREMENTS FOR THE A.A.S. DEGREE GENERAL EDUCATION CORE REQUIREMENTS	
	EN-101, 102 English Composition I, II	6
	MA-114 College Algebra and Trigonometry for Technical	
	Students	4
	MA-128 Calculus for Technical and Business Students	4
	PH-201, 202 General Physics I, II	8
	SS or HI-Electives in Social Scienceor History	
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	MT-111 Technical Graphics	2 3 3 1
	MT-122 Manufacturing Processes	3
	MT-124 Metallurgy and Materials	ن 1
	MT-125 Metallurgy and Materials Laboratory	
	MT-161 Fundamentals of Computer Numerical Control MT-341 Applied Mechanics	3 3
		3
	MT-488 Computer-Aided Design Drafting (CAD)	3
	MT-345 Strength of Materials MT-346 Strength of Materials Laboratory	3 1
	MT-368 Computerized Laboratory Techniques in	'
	Mechanical Technology	3
	MT-900 Cooperative Education/ Design Projects	3
	MT-487 Electro-Mechanical Systems Design	3
	MT-566 Electro-Mechanical Systems Laboratory	3 1
	MT-513 Thermo Fluid Systems	3
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### **RATIONALE:** (Removing MT-344 from curriculum)

The results of our meetings with our Industrial Advisory Board and our studies of current in field requirements have indicated that more emphasis should be placed on MT-900 Cooperative Education.

The relative importance of MT-344 has substantially decreased and this trend will continue. Eliminating this course from the MET Curriculum and channeling students directly to MT-900 will provide students a more relevant learning experience. The title, description and pre-requisites for MT-900 have been revised so that all students in the curriculum can take the course, and so the learning experience is more clearly defined.