COMPUTERIZED ARCHITECTURAL AND INDUSTRIAL DESIGN

A.A.S. Degree Program

The Computerized Architectural and Industrial Design program prepares men and women for drafting and design careers in all phases of industry. First-year courses provide a broad base of analytical and practical skills in English, mathematics, drafting, and manufacturing processes and materials.

Second-year courses offer specialized education and training for the fields of air-conditioning, architecture, construction, electro-mechanics, heat power, heating and ventilating, machine design, manufacturing, structural design, and computer-aided design technology. Graduates are qualified to hold such responsible positions in industry as engineering drafters, associate designers, detailers, technical illustrators, engineering assistants, architectural drafters, and CAD operators.

Graduates of this program may continue their education toward the Bachelor of Engineering Technology degree or in architectural studies at certain four-year schools. Students are invited to consult the Department for information on programs and institutions. The Department also provides a job placement service for graduates.

The Department's Interactive Computer Graphics Laboratories provide students with exposure to all phases of modern computer-aided design drafting practices.

REQUIREMENTS FOR THE A.A.S. DEGREE

GENERAL EDUCATION CORE REQUIREMENTS *Credits*

EN-101, 102	English Composition I, II	6
SS- *or* HI-	Electives in Social Science§ *or* History§ (HI-100 series)	6
MA-114†	College Algebra and Trigonometry for Technical Students†	4
PH-101*	Principles of Physics	4
	Sub-total	20

REQUIREMENTS FOR THE MAJOR

MT-122 *or*	Manufacturing Processes *or* ††	
MT-219 ††	Surveying and Layouts	3
MT-111	Technical Graphics	2
MT-124	Metallurgy and Materials	3
MT-212	Technical Descriptive Geometry	3
MT-341	Applied Mechanics	3
MT-345	Strength of Materials	3
MT-453	Piping Systems	3
MT-454	Fundamentals of HVAC Systems	2
MT-481	Architectural Design Fundamentals	3
MT-482	Structural Drafting and Design	3
MT-484	Construction Methods	3
MT-369	Computer Applications in Engineering Technology	3
MT-488	Computer-Aided Design Drafting (CADD)	3
MT-489	Advanced Computer-Aided Design Drafting (ADCADD)	3
	Sub-total	40

Total Credits Required 60

** Students may take PH-201 in place of PH-101.*

† Students may take MA-440 or 441 in place of MA-114.

†† Students interested in architecture/construction should take MT-219. Those interested in manufacturing and graphics should take MT-122.

Note: *Students planning to pursue a BS Arch./M Arch. or B Arch. should take PH-201 and MA-441.*

Note: *On the basis of a speech test administered to all students upon admission, up to two semesters of remedial speech may be required.*

§ Sections of this course denoted as "WI" may be taken to partially satisfy the Writing Intensive Requirement. See Writing Intensive Requirement on page 69 for details.

Two (2) Writing Intensive classes are required for the Associate degree. *See page 69.*

SUGGESTED SEQUENCE OF COURSES

		Credits
Semester 1		
EN-101	English Composition I	3
MA-114†	College Algebra and Trigonometry for Technical Students †	4
MT-122 *or*	Manufacturing Processes *or*	
MT-219§	Surveying and Layout	3
MT-111	Technical Graphics	2
MT-124§	Metallurgy and Materials	3
	Sub-total	15
Semester 2		
EN-102	English Composition II	3
SS or HI	Elective in Social Science or History	3
MT-212	Technical Descriptive Geometry	3
MT-341	Applied Mechanics	3
MT-488§	Computer-Aided Design Drafting (CADD)	3
	Sub-total	15
Semester 3		
SS- *or*	Elective in Social Science *or*	
HI-	History (selected from HI-100 series)	3
MT-345	Strength of Materials	3
MT-453	Piping Systems	3
MT-481	Architectural Design Fundamentals	3
MT-489§	Advanced CADD	3-4
	Sub-total	15
Semester 4		
PH-101	Principles of Physics	4
MT-369	Computer Applications in Engineering Technology	3
MT-454	Fundamentals of HVAC Systems	2
MT-482	Structural Drafting and Design	3
MT-484	Construction Methods	3
	Sub-total	15

Total Credits Required 60

A Certificate program in COMPUTERIZED ARCHITECTURAL DESIGN AND DRAFTING (CAD) is also offered by the Department of Mechanical Engineering Technology and Design Drafting.