

ASSOCIATE OF APPLIED SCIENCE DEGREE (956)

# Mechanical Engineering Technology

**Purpose:** The Mechanical Engineering Technology program is designed to give the student broad experience and training in the basic concepts of the mechanical engineering technology field. In addition to the general education and mechanical technology courses, this program offers courses in machine design and in computer numeric control applications.

Graduates may seek immediate employment or consider opportunities available to transfer to Bachelor of Technology programs offered by some four-year colleges and universities.

**Occupational Objectives:** The mechanical engineering technician usually serves as a liaison between the engineering and production departments working with the design and development of engineering plans. Responsibilities may include estimating, inspecting, and testing engineering equipment; operating, maintaining, and repairing engineering plants; research and development; sales and representation; and training and education.

**Admission Requirements:** Applicants must meet the general admission requirements for admission to the college.

Developmental courses are required for students with deficiencies in English and mathematics. Students who do not place into college-level English on the placement test will be required to take developmental courses (i.e., ENG 1, ENG 3, ENG 4, ENG 7).

Students who do not place above Algebra I (MTH 3) and into Algebra II (MTH 4) or higher on the placement test will be required to take developmental courses.

**Program Requirements:** It is strongly recommended that students take ENG 111 in the first semester of coursework.

**Articulation Agreement:** As a result of an articulation agreement with Old Dominion University, students receiving an Associate of Applied Science (AAS) degree in Mechanical Engineering Technology may earn a baccalaureate degree (BS) in Engineering Technology on the Virginia Western Community College campus in Roanoke.

**CURRICULUM AND OTHER REQUIREMENTS** **CREDITS**

**GENERAL EDUCATION CORE COURSES**

CST 100 .....	Prin of Public Speaking (or CST 105) .....	3
ENG 111* .....	College Composition I .....	3
HLT/PED <sup>3</sup> .....	Health or Physical Education .....	2
MTH 115-116 <sup>5,*</sup> .....	Technical Mathematics I-II .....	6
PHY 201* .....	General College Physics I .....	4
SDV 101 .....	Orientation to Engineering Tech.....	1
E <sup>1</sup> .....	Humanities/Fine Arts Elective .....	3
E <sup>2</sup> .....	Social Science Elective .....	6

**MECHANICAL ENGINEERING AND RELATED COURSES**

DRF201-202-203* .....	Computer Aided Drafting and Design I-II-III .....	9
DRF 226* .....	Computer Aided Machining .....	3
DRF 238* .....	Computer Aided Modeling & Rendering .....	3
EGR 216* .....	Computer Methods in Engineering .....	3
ETR 113* .....	DC and AC Fundamentals I .....	4
MEC 113 .....	Materials and Processes of Industry .....	3
MEC 119 .....	Introduction to Basic CNC and CAM .....	3
MEC 131* .....	Mechanics I-Statics for Engin Tech .....	3
MEC 132* .....	Mechanics II-Strength of Materials for Engineering Technology .....	3
E <sup>4</sup> .....	Technical Elective .....	3

**Total Minimum Credits for Degree ..... 65**

<sup>1</sup> Any three credit 100 or 200 level ART, ENG, FRE, HUM, MUS, PHI, REL or SPA elective may be used, except ENG 111, ENG 112 or ENG 210. CST 130, 131, 132 or 136 may also be used. Students intending to transfer should contact the four-year college and choose a humanities course from the "Approved List of Transfer Courses" that is recommended by their transfer institution.

<sup>2</sup> Any 100 or 200 level social science elective may be used. Students intending to transfer should contact the four-year college and choose a social science course from the "Approved List of Transfer Courses" that is recommended by their transfer institution.

<sup>3</sup> Two credits of Health (HLT) or Physical Education (PED) are required of all students. Consult Health courses in the Description of Courses for selection of an approved course. Veterans with an honorable discharge will be awarded HLT/PED credit based on military service.

<sup>4</sup> Technical elective should be selected from EGR 126, EGR 206, MTH 157, PHY 202, or see advisor for additional options.

<sup>5</sup> Students may substitute MTH 166 and MTH 175. See advisor for details.

\* This course has a prerequisite. Prerequisites for all courses are listed in the course description section at the back of the catalog.

## ASSOCIATE OF APPLIED SCIENCE DEGREE (956)

**Mechanical Engineering Technology cont'd****SUGGESTED SCHEDULE****FIRST YEAR****FALL**

DRF 201

EGR 216

ENG 111

MEC 119

MTH 115

SDV 101

**SPRING**

DRF 202

DRF 226

MEC 113

MEC 131

MTH 116

Humanities/Fine Arts

**SECOND YEAR****FALL**

DRF 203

ETR 113

HLT/PED

MEC 132

PHY 201

Social Science Elective

**SPRING**

CST 100

DRF 238

HLT/PED

Social Science Elective

Technical Elective