

# Associate of Applied Science Degree in General Engineering Technology: Technical Operations

## 968-07

**AREA:** General Engineering Technology:  
Technical Operations

**DEGREE:** Associate of Applied Science Degree

**LENGTH:** Four semesters (two-year) program

**PURPOSE:** This curriculum provides educational opportunities for those who are or those who seek to be employed in a field that requires a substantial technical knowledge base. The curriculum also provides an opportunity to transfer and complete a bachelor of science degree in Technical Operations from Old Dominion University, which can be completed on the Middletown or Warrenton campus of Lord Fairfax Community College. This curriculum has extended technical and science electives to allow some customization for both employers and students.

**OCCUPATIONAL OBJECTIVES:** Engineering aid, production line lead, technical support technician, testing technician, technical sales, production support technician, or other related positions.

**TRANSFER GUIDELINES:** Graduates with appropriate course selection may qualify to enter the General Engineering Technology, Technical Operations Specialization at Old Dominion University. This Bachelor of Science program can be completed at the ODU site on either the Middletown campus or the Warrenton campus of Lord Fairfax Community College. Course selection is very important to insure a smooth transfer process, and students must work closely with an advisor. Transfer to other universities must be explored by the student on a case by case basis.

**PROGRAM REQUIREMENTS:** This curriculum is designed to integrate a variety of required technical courses, substantial technical electives, science electives, and required general education courses. Students entering the program must have algebra 1 and geometry skills or be willing to improve those skills through developmental studies. Additionally, students must take courses in the proper order so that prerequisite courses are completed as appropriate. The program may be completed on a part-time basis since courses are alternated between day and evening hours. Technical electives must be approved by the program advisor. Student can work with their employers to identify the type of technical and science electives to best suit their employment advancement goals. Employers are also encouraged to work with Lord Fairfax Community College for consideration of special courses or possible work experience (typically by internship) as technical

electives. Students who intend to transfer will have specific course requirements for technical electives and should consult with their program advisor about those requirements.

Course#	Title	Credits
<b>First Semester</b>		
EGR 110	Engineering Graphics	3
ENG 111	English Composition I	3
MEC 111	Materials for Industry	3
MTH	Approved MTH Elective <sup>1</sup>	3
SDV 100	College Success Skills	1
	Technical Elective <sup>3</sup>	3
	<b>Total</b>	<b>16</b>
<b>Second Semester</b>		
CAD 241	Parametric Solid Modeling I	3
EGR 216	Computer Methods in Engineering and Technology	3
ENG 112/115	College Composition II or Technical Writing	3
MEC 112	Processes of Industry	3
MTH	Approved MTH Elective <sup>1</sup>	3
	Technical Elective <sup>3</sup>	3
	<b>Total</b>	<b>18</b>
<b>Third Semester</b>		
CAD 242	Parametric Solid Modeling II	3
EGR 206	Engineering Economics	3
PED/HLT	Physical Education or Health	1
	Social Science Elective <sup>2</sup>	3
	Technical Elective <sup>3</sup>	3
	Technical Elective <sup>3</sup>	3-4
	<b>Total</b>	<b>16-17</b>
<b>Fourth Semester</b>		
IND 145	Introduction to Metrology	3
	Social Science Elective <sup>2</sup>	4
	Technical Elective <sup>3</sup>	3
	Technical Elective <sup>3</sup>	3-4
	Humanities Elective <sup>4</sup>	3
	<b>Total</b>	<b>15-16</b>
	<b>Program Total</b>	<b>65-67</b>

<sup>1</sup> Approved higher level math courses include: MTH 120/158, MTH 158/163, MTH 163/164, MTH 163/271, MTH 271/272, MTH 173/174. Students should check with program faculty.

<sup>2</sup> Students may select social science electives from list of approved electives on page 42.

<sup>3</sup> An approved list of technical electives is available on page 44.

<sup>4</sup> Students may select humanities from list of approved electives on page 42.