

**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 their program 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>		
MEC 113	Materials and Processes of Industry	3
EGR 110	Engineering Graphics	3
ENG 111	English Composition I	3
PED/HLT	Physical Education or Health	2
MTH	Approved math elective	3
	Approved social science elective	3
SDV 100	College Success Skills	1
	<b>Total</b>	<b>18</b>
<b>Second Semester</b>		
CAD 241	Parametric Solid Modeling I	3
ETR 113	DC and AC Fundamentals	3
ENG 115	Technical Writing	3
MTH	Approved math elective	3
	Approved computer elective	3
	Approved social science elective	3
	<b>Total</b>	<b>18</b>
<b>Third Semester</b>		
CAD 242	Parametric Solid Modeling II	3
EGR 206	Engineering Economics	3
	Science elective <sup>1</sup>	4
	Approved technical elective <sup>2</sup>	6
	<b>Total</b>	<b>16</b>
<b>Fourth Semester</b>		
EGR 216	Computer Methods in Engineering and Technology	3
EGR 247	Materials Lab	1
	Science Elective <sup>1</sup>	4
	Approved humanities elective	3
	Approved technical elective <sup>2</sup>	6
	<b>Total</b>	<b>17</b>
	<b>Program Total</b>	<b>69</b>

<sup>1</sup>A one-year sequence of biology, chemistry, geology or physics is recommended; however, depending on the requirements of the four-year institutions, two one-semester courses in different sciences may be substituted with advisor approval.

<sup>2</sup>Requires approval of program advisor.