

# MECHANICAL DESIGN TECHNOLOGY

**Award: Associate of Applied Science Degree**

**Major: Mechanical Design Technology**

*Possible occupations for graduates: engineering assistant, mechanical engineer technician, industrial engineer technician, quality control technician, material testing technician, and technical salesperson.*

The A.A.S. degree program in Mechanical Design Technology is designed for people who seek employment or professional development in the area of mechanical engineering technology. Technical electives can be selected to suit the student's specific career objectives.

Many graduates continue on to Old Dominion University (ODU) or other four-year colleges for their junior and senior level courses in pursuit of a Bachelor of Science degree in Engineering Technology. The ODU courses can be taken on campus at BRCC via satellite.

## Curriculum

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Course No.	Title	Credits
<b>First Semester</b>		
EGR 115	Engineering Graphics	3
	or	
CAD 140	Technical Drawing	(3)
ECO 120	Survey of Economics	3
ENG 111	College Composition I	3
MEC 111	Materials for Industry	3
MTH 103	Applied Technical Mathematics I	3
	or	
MTH 163	Precalculus I <sup>a</sup>	(3)
SDV	Student Development	<u>1</u>
		16
<b>Second Semester</b>		
CAD 241	Parametric Solid Modeling I	3
EGR 127	Introduction to Computer Programming	2
MEC 112	Processes of Industry	3
MEC 225	Metallurgy	3
MTH 104	Applied Technical Mathematics II	3
	or	
MTH 164	Precalculus II <sup>a</sup>	(3)
	Social/Behavioral Science Elective <sup>b</sup>	<u>3</u>
		17
<b>Third Semester</b>		
CAD 225	Machine Drawing and Design	3
CAD 242	Parametric Solid Modeling II	3
EGR 130	Statics and Strengths of Materials for Engineering Technology	5
PHY 201	General College Physics I	4
	Technical Elective <sup>c</sup>	<u>3</u>
		18

#### Fourth Semester

EGR 199	Supervised Study in Dynamics <sup>d</sup>	1
EGR 245	Engineering Mechanics - Dynamics <sup>d</sup>	3
EGR 247	Mechanics of Materials Laboratory	1
HLT/PED	Health or Physical Education	2
MEC 211	Machine Design I	4
PHY 202	General College Physics II	4
	or	
	Technical Elective <sup>c</sup>	(3)
	Humanities/Fine Arts Elective <sup>b</sup>	3
	17-18	
<b>Total credits required</b>		<b>68-69</b>

<sup>a</sup> MTH 173 may be substituted. Students who wish to transfer should take MTH 163-164 or MTH 173.

<sup>b</sup> Please refer to the list of Humanities/Fine Arts electives and Social/Behavioral Science electives that are approved to fulfill these requirements available in Admissions and Records.

<sup>c</sup> Technical Electives for the Mechanical Design Technology degree include ARD 121, 122, CAD 243, MEC 255, and MTH 173

<sup>d</sup> EGR 199 and EGR 245 should be taken concurrently.