

## **MECHATRONIC** ENGINEERING TECHNOLOGY

Associate in Applied Science | Dipolma | Certificate

The Mechatronic Engineering Technology curriculum is designed to prepare or upgrade individuals to obtain jobs in the manufacturing industry astechnical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

To learn more visit www.piedmontcc.edu/mech

#### More about MECHATRONIC ENGINEERING TECHNOLOGY

The Mechatronic Engineering Technology curriculum is designed to prepare or upgrade individuals to obtain jobs in the manufacturing industry as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing electronic and mechanical systems. Course work includes mathematics, natural sciences, engineering sciences and technology.

Students will learn multi-craft technical skills in blueprint reading, mechanical systems, electrical/electronic systems, hydraulics/ pneumatics, automation, and includes various diagnostic and repair procedures. Practical application in the mechanical and electrical systems will be emphasized and advanced course work may be offered.

The Mechatronic Engineering Technology program strives to meet the demands of the global workforce therefore, students are provided with various levels of course work in the mechanical and electronic field.



Upon completion of this curriculum, graduates should be able to plan, manage, and provide scientific research and professional and technical services including laboratory and testing services, research and development services and troubleshooting.

# COURSES

<b>Required Courses for Program</b>	AAS	DIP	CERT
ACA 111 College Student Success *			
ACA 122 College Transfer Success *			
ATR 112 Intro to Automation			
BPR 115 ELC/Fluid Power Diagrams ****			
BPR 111 Blueprint Reading ****			
CIS 110 Intro to Computers			
COM 231 Public Speaking			
DFT 119 Basic CAD			
ELC 112 DC/AC Electricity			
ELC 117 Motors and Controls			
ELC 128 Intro to PLC's			
ELC 213 Instrumentation			
ELC 228 PLC Applications			
ELN 131 Analog Electronics I			
ENG 111 Writing and Inquiry			
ENG 231 American Literature I ***			
ENG 232 American Literature II ***			
HUM 110 Technology and Society <b>**</b>			
HUM 115 Critical Thinking **			
HYD 110 Hydraulics/Pneumatics			
ISC 112 Industrial Safety			
ISC 170 Problem Solving			
MAT 171 Pre-Calculus Algebra			
MEC 130 Mechanisms			
MNT 110 Intro to Maintenance			
PSY 150 General Psychology			
PHY 151 College Physics I			
<b>Total Semester Hours Required for Degree</b>	71	48	18

Courses with matching symbols indicate OR/AND requirements. Review back page or contact Student Development for more information.

AAS = Associate of Applied Science DIP = Dipolma CERT = Certificate

Denotes required for completion

### **MECHATRONIC ENGINEERING TECHNOLOGY**

ASSOCIATE IN APPLIED SCIENCE | DIPLOMA | CERTIFICATE

#### Process for ADMISSIONS

- Submit a complete Application for Admission to the Office of Admissions.
- Submit official transcript(s) of high school education and all post-high school course work to the Office of Admissions if requested. GED scores or transcript of courses for the Adult High School Diploma may be submitted in lieu of the high school transcript.
- Complete the Admission Placement Test.
- Diploma and certificate admission requirements may vary. Contact the Admissions Office for details.



Dave Wehrenberg



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Caswell County Campus 331 Piedmont Drive Yanceyville, NC 27379 (336) 694-5707

#### ASSOCIATE IN APPLIED SCIENCE Suggested Course Sequence Full-time Student

Course	#	Course Name	CL.	LB.	CLIN.	CR.		
FALL 3			1	0	0	1		
ACA	111	College Student Success <b>OR</b>	1	0	0	1		
ACA	122	College Transfer Success	0	2	0	1		
MAI	1/1	Precalculus Algebra	3	2	0	4		
ENG	111	Writing and Inquiry	3	0	0	3		
MNT	110	Intro. To Maintenance	1	3	0	2		
ATR	112	Intro. To Automation	2	3	0	3		
CIS	110	Intro. To Computers	2	2	0	3		
			11-12	10-12	0	16		
SPRING SEMESTER								
PHY	151	College Physics I	3	2	0	4		
COM	231	Public Speaking	3	0	0	3		
ELC	112	DC/AC Electricity	3	6	0	5		
DFT	119	Basic CAD	1	2	0	2		
ISC	112	Industrial Safety	2	0	0	2		
BPR	111	Blueprint Reading <b>OR</b>	1	2	0	2		
BPR	115	ELC/Fluid Power Diagrams	1	2	0	2		
		, 0	13	12	0	18		
SUMMER SEMESTER								
ELC 11	17	Motors and Controls	2	6	0	4		
			2	6	0	4		
FALL SEMESTER								
ISC 17	0	Problem Solving	3	0	0	3		
ELC 12	28	Intro to PLC's	2	3	0	3		
ISC 13	0	Intro to Quality Control	3	0	0	3		
ELC 21	13	Instrumentation	3	2	0	4		
HUM 1	110	Technology and Society <b>OR</b>	3	0	0	3		
HUM 1	115	Critical Thinking <b>OR</b>	3	0	0	3		
ENG 2	31	American Literature I <b>OR</b>	3	0	0	3		
ENG 2	32	American Literature II	3	0	0	3		
			14	5	0	16		
SPRIN	G SEME	STER						
HYD 1	10	Hydraulics	2	2	0	3		
MEC 1	30	Mechanisms	2	2	0	3		
ELN 1	31	Analog Electronics	2	3	0	4		
ELC 22	28	PLC Applications	2	6	Ū.	4		
*SOC	-	Social Science Elective	3	0	Ū.	3		
		(ECO 151 ECO 251 PSV 150 SOC	210) 11	13	0 0	17		
			51-52	46-48	0	71		
			01 02		v	11		

#### TOTAL SEMESTER HOURS REQUIRED FOR DEGREE: 71