



# TECHNICAL STUDIES

Associate in Applied Science (AAS)

2016-17 Catalog Version

## Advising Sheet – Suggested Course Sequence

Student Name \_\_\_\_\_

Faculty Advisor \_\_\_\_\_

REQUIRED COURSES	CR.	PRE-REQUISITE COURSES	APPROVED COURSE SUBSTITUTIONS	TERM THAT I PLAN TO TAKE OR ✓ TAKEN
ENG 111 College Composition I	3	See Placement Test Scores		
ENG 115 Technical Writing	3	See Placement Test Scores	ENG 112	
MTH 103 Applied Technical Mathematics I	3	See Placement Test Scores	Math 120 or higher	
SDV 100 College Success Skills	1		SDV 101	
Technical Electives	21		See Note 2	
<b>MILESTONE: See technical elective requirements to earn a Career Studies Certificate (CSC) (See faculty advisor)</b>				
CAD 201 Computer Aided Drafting and Design 1	3			
IND 101 Quality Assurance Technology I	3			
IND 116 Applied Technology	3			
IND 137 Team Concepts and Problem Solving	3			
IND 197 Cooperative Education	3		IND 198 Seminar and Project	
IND 297 Cooperative Education	3		IND 298 Seminar and Project	
ITE 115 Introduction to Computer Applications and Concepts	3		See Note 9	
IT Elective	3		See Note 3	
Health or Physical Education Elective	1			
Humanities Elective	3		See Note 4	
PSY 126 Psychology for Business and Industry	3			
SAF 130 Industrial Safety OSHA-10	1		See Note 10	
Social/Behavioral Science Elective	3		See Note 5	
<b>Total Minimum Credits to Complete</b>	<b>66</b>			

**NOTES**

- Students are strongly encouraged to complete their SDV, ENG, and MTH requirements first.
- The technical elective requirement can be satisfied by courses with the following prefixes: AIR, ARC, CAD, DRF, EGR, ELE, IND, MAC, MEC, SAF or WEL. Selection must be approved in advance by the faculty advisor.
- The information technology (IT) elective requirement can be satisfied by appropriate computer-related courses with the following prefixes: ARC, CAD, DRF, EGR, ITD, ITE, ITN, ITP or MAC. Selection must be approved in advance by the faculty advisor. Pre-requisites for selected course, if any, must also be satisfied.
- The humanities elective requirement must be satisfied by completing one 3-credit conceptual humanities course that offers breadth of knowledge. See website (<http://www.jtcc.edu/humanitieselectives>) for a list of approved conceptual and applied humanities electives.
- The social/behavioral science elective can be satisfied with the following prefixes: PSY, SOC, ECO, GEO, PLS or HIS.
- Students should regularly meet with their faculty advisor and check their advisement report in MyTyler – SIS.
- Courses noted as Fall only or Spring only are based on historical trends and current planning and may change without notice.
- This program is not intended for transfer to four-year colleges and universities. Students desiring to transfer should contact their academic advisors and their intended transfer institutions for specific direction in program and course selection. Required courses for any major at four-year institutions may vary.
- Students with good computer skills may seek to satisfy this requirement by CLEP or internal exam.
- The SAF 130 class will be waived with a prior OSHA 10 or 30 certification. Proof of successful completion with a valid OSHA issued card will be required.

For more information on this major, contact the Division of Engineering, Business and Public Services. 804.706.5121 (Chester Campus, Godwin Hall, G108) or 804.594.1480 (Midlothian Campus, Hamel Hall, H206).



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## SUGGESTED TECHNICAL ELECTIVES:

### Heating, Ventilation and Air Conditioning

AIR 121 Air Conditioning and Refrigeration I	3
AIR 122 Air Conditioning and Refrigeration II	3
AIR 134 Circuits and Controls I	3
AIR 154 Heating Systems I	3
ELE 131 National Electrical Code I	3
ELE 150 A.C. and D. C. Circuit Fundamentals	4
Technical Elective	2
<b>Total</b>	<b>21</b>

### Industrial Electricity

ELE 118 Practical Electricity	2
ELE 137 National Electrical Code – Industrial	3
ELE 150 A.C. and D. C. Circuit Fundamentals	4
ELE 156 Electrical Control Systems	3
ELE 159 Electrical Motors	3
ELE 239 Programmable Logic Controllers	3
ELE 240 Advanced Programmable Controllers	3
<b>Total</b>	<b>21</b>

### Mechanical Maintenance

DRF 160 Machine Blueprint Reading	3
ELE 150 A.C. and D. C. Circuit Fundamentals	4
ELE 159 Electrical Motors	3
MEC 113 Materials and Processes of Industry	3
MEC Elective	2
MEC 154 Mechanical Maintenance I	3
MEC 254 Mechanical Maintenance II	3
<b>Total</b>	<b>21</b>

### Precision Machining Technology

MAC 121 Computer Numerical Control I	3
MAC 122 Computer Numerical Control II	3
MAC 123 Computer Numerical Control III	3
MAC 161 Machine Shop Practices I	3
MAC 162 Machine Shop Practices II	3
MAC 163 Machine Shop Practices III	3
MAC 164 Machine Shop Practices IV	3
<b>Total</b>	<b>21</b>

### Precision Machining Computer Numerical Control (CNC)

MAC 181 Machine Blueprint Reading I	<del>2</del>
MAC 121 Computer Numerical Control I	3
MAC 122 Computer Numerical Control II	3
MAC 123 Computer Numerical Control III	3
MAC 130 Introduction to Electric Discharge Machining	2
MAC 134 CMM Operation and Programming	2
MAC 161 Machine Shop Practices I	3
MAC 162 Machine Shop Practices II	3
<b>Total</b>	<b>21</b>

### Residential Electricity

ELE 110 Home Electric Power	3
ELE 118 Practical Electricity	2
ELE 127 Residential Wiring Methods	3
ELE 131 National Electrical Code I	3
ELE 138 National Electrical Code Review I	3
ELE 150 A.C. and D. C. Circuit Fundamentals	4
ELE 151 Electrical Troubleshooting	3
<b>Total</b>	<b>21</b>

### Welding

WEL 123 Shielded Metal Arc Welding (Basic)	3
WEL 130 Inert Gas Welding	3
WEL 141 Welder Qualification Test I	3
WEL 150 Welding Drawing Interpretation	2
WEL 160 Gas Metal Arc Welding	3
WEL 175 Semi-Automatic Processes	3
WEL 250 Welding Quality Control & Inspection	3
Technical Elective	1
<b>Total</b>	<b>21</b>

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