



# Mountain Empire Community College Publication Change Form

Please fill in and print this page to request changes to MECC's publications. This process provides for MECC's publications on the college's web site to be maintained with up-to-date information, unlike the printed copies that are updated once a year.

Change Applies to:  Catalog  Student Handbook  Other \_\_\_\_\_

Type of Change:  Update  Deletion  Addendum

Does the change need to be applied to the website?  Yes  No

If yes, which web page(s) requires the change? Computer Software Specialist (222)

Current Page Number: 232,233 -or- Proposed Page Number: \_\_\_\_\_

Effective Date: Fall 2019

Brief Description of Change:

Remove ITP 120 Java Programming I  
Remove ITP 220 Java Programming II  
Remove SDV 106 Preparation for Employment  
Remove ITP 251 Systems Analysis and Design  
Remove ITP 247 Native Mobile Programming.  
Add ITN 260 Network Security Basics  
Add PE/HLT Elective  
Add ITN 262 Network Communication, security and Authentication  
Add ITN 261 Network Attacks, Computer Crime & Hacking  
Move Humanities Elective, Social Science Elective and ITN 171 UNIX I  
Remove Chris Bishop from Contact list, Add Phillip Edwards and Ritchie Deel


Person Submitting Change:

**Tommy Clements**

Name (print)

  
Signature

Vice President of Academic Affairs and Workforce Solutions:

  
Signature

6-4-19  
Date

Send this form and attachments to the office of the Vice President of Academic Affairs and Workforce Solutions.

## COMPUTER SOFTWARE SPECIALIST (222)

### Purpose

The Associate of Applied Science degree program in Computer Software Specialist is designed to prepare students to enter the workforce as computer professionals trained in a variety of cutting-edge software packages. General and specialized computer courses with an emphasis in programming and database applications are complemented by general education courses. Students will participate in a comprehensive program that includes both classroom and lab instruction, along with a work-based learning experience or a comprehensive computer project.

### Program Learning Outcomes (PLO): Upon successful completion, students will be able to:

1. Write application software that makes efficient and secure use of operating system services.
2. Develop an information system using accepted software development processes.
3. Produce user applications using a specialized technology that builds upon fundamental software development practices.
4. Analyze a problem and identify the appropriate data, hardware components and/or software requirements to develop a feasible solution.
5. Use current tools and practices that support the software documentation process.
6. Document system requirements and/or develop materials for clients in the proper use of hardware or software.
7. Work cooperatively and effectively in teams to accomplish a shared goal.
8. Analyze local and global information technology (IT) trends, while recognizing the influences of IT on cultural, economic, ethical, and legal issues and responsibilities.
9. Support the management of information systems.
10. Use logical and mathematical reasoning to analyze, organize, and interpret data.

### Employment Opportunities

Job opportunities in the immediate area and throughout the nation abound for students trained in computers. According to the Bureau of Labor Statistics' website, employment of software developers is projected to grow 24% from 2016 to 2026, which is much faster than the average for all occupations. Software developers will be needed to respond to an increased demand for computer software. Students completing the Computer Software Specialist AAS will be qualified for the following positions: Computer Software Specialist, Software Developer, Computer Lab Assistant, Help-Desk Technician, Database Operator/Manager, Software Consultant, Programmer, Software Tester/Analyst.

Opportunities for advancement are excellent for those students willing to continue their education and training. Students may wish to enhance their advancement opportunities by pursuing certifications available from various software vendors. Students also may want to couple their degree with the Cybersecurity Career Studies Certificate or the Mobile Applications Development Career Studies Certificate.

### Program Requirements

Students should have English and Mathematics skills assessed. Deficiencies in these areas may be corrected by completing the appropriate developmental studies courses.

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### FOR FURTHER INFORMATION, CONTACT:

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## COMPUTER SOFTWARE SPECIALIST PROGRAM OF STUDY

Course #	Course Title	Credit	Pre-Requisite Courses (if applicable)
<b>FIRST YEAR FALL</b>			
ITE 131	Survey of Internet Services	1	
ITD 110	Web Page Design I	3	
ITE 119	Information Literacy	3	
ITN 260	Network Security Basics	3	
ITN 101	Introduction to Network Concepts	3	
	Social Science Elective	3	
SDV 100	College Success Skills	1	
<b>FIRST YEAR SPRING</b>			
ENG 111	College Composition I	3	
ITP 100	Software Design	3	
	Humanities Elective	3	
ITP 140	Client Side Scripting	3	ITD 110 co-requisite
ITD 132	Structured Query Languages	3	
PED/HLT	Physical Education Elective/Health Elective	1	
<b>SECOND YEAR FALL</b>			
ITE 150	Desktop Database Software	3	ITE 119
ITP 132	C++ Programming I	3	ITP 100 or MTH 163
	Social Science or Humanities Elective	3	
MTH 111	Basic Technical Math	3	
ITP 225	Web Scripting Languages	3	ITD 110 co-requisite
ITN 171	UNIX I	3	
<b>SECOND YEAR SPRING</b>			
ITP 232	C++ Programming II	3	ITP 132
ITN 262	Network Communication, Security & Authentication	3	
ITN 261	Network Attacks, Computer Crime & Hacking	3	
ITP 298	Capstone/Project Integration	3	
ITP 270	Programming in Cybersecurity	3	
<b>TOTAL PROGRAM CREDITS</b>		<b>66</b>	

### Notes and Additional Curriculum Options

Course substitutions may be available. Please see your advisor.