

	<p align="center"><i>Computer Programming Program Guide</i> CIP Code # 52.1201</p>
<p align="center">Standard Occupational Classifications</p>	<p align="center">2017 Pennsylvania High Priority Occupations</p>
<p>15-1131 Computer Programmer 15-1132 Computer Software Developers, Applications 15-1133 Computer Software Developers, System Software 15-1150 Computer Support Specialists 15-1121 Computer Systems Analysts 15-1061 Database Administrators</p>	<p>15-1121 Computer Systems Analyst³ 15-1131 Computer Programmers³ 15-1132 Software Developers, Applications³ 15-1133 Software Developers, Systems Software³ 15-1151 Computer Support Specialists³</p>
<p align="center">Industry Program Accreditation</p>	<p align="center">Student Certifications</p>
<p align="center">None at this time</p>	<p>ECTS Program Completer or Participant Pennsylvania Skills Certificate CareerSafe OSHA 10 Hour General Industry</p> <p><i>Certifications that can be earned after graduation, if student chooses to pursue them:</i></p> <p><i>Microsoft Office User Specialist Oracle Certification SAS Base Certification</i></p>

Key: ¹Statewide HPO ²Regional HPO ³Both Statewide and Regional HPO

For more information, go to: <http://online.onetcenter.org/find/family?f=17&g=Go>

Computer Programming Course Prerequisites

Expected Characteristics and Traits for Success

- Good attendance
- Self starter
- Punctual
- Dependable, honest, and ethical
- Willingness to learn
- Able to sit and work in one place for long periods of time
- Able to follow both written and oral instructions
- Able to accept constructive criticism
- Able to listen
- Able to follow safety rules within the lab area
- Respectful attitude for authority in both the class-room and out on the CO-OP site
- Pre–algebra mathematical skills
- Good problem solving and analytical skills
- Able to communicate your thoughts and ideas effectively
- Able to visualize abstract ideas
- Able to apply fractional, decimal and metric conversions
- Able to use and apply formulas to calculate percentages, averages, means, standards deviations, ratios and proportions
- Able to create mental images to solve both simple and complex programming problems
- Cooperates with fellow students in team programming assignments and projects

All supplies needed by students are provided by ECTS.

Computer Programming Planned Courses

Content Area	Course Title	Course Number	Course Hours
00	Computer Programming Fundamentals		
	Leadership Principles	PFS109 PFS110	7.5 7.5
	Business Principles	PFS209 PFS211	7.5 7.5
	Total Quality Principles	PFS309 PFS310	7.5 7.5
10	Microsoft Programs		
	Microsoft Word	CMP110	45

	Microsoft Excel	CMP111	45
	Microsoft Access	CMP112	45
20	Web Development		
	Intro to HTML	CMP120	45
	HTML I	CMP220	30
	HTML II	CMP221	45
	HTML III	CMP222	30
	HTML IV	CMP223	45
30	Console Application/GUI Application Programming		
	Intro to Programming Level 1	CMP130	30
	Intro to Programming Level II	CMP131	45
	Intro to Programming Level III	CMP132	30
	Intro to Programming Level IV	CMP133	45
	C++ Net Programming Level I	CMP134	30
	C++ Net Programming Level II	CMP135	45
	C++ Net Programming Level III	CMP136	30
	C++ Net Programming Level IV	CMP137	45
	C# Programming Level I	CMP230	30
	C# Programming Level II	CMP231	45
	C# Programming Level III	CMP232	30
	C# Programming Level IV	CMP233	45
	Visual Basic Programming Level I	CMP234	30
	Visual Basic Programming Level II	CMP235	45
	Visual Basic Programming Level III	CMP236	30
	Visual Basic Programming Level IV	CMP237	45
	Java Programming Level I	CMP330	30
	Java Programming Level II	CMP331	45
	Java Programming Level III	CMP332	30
	Java Programming Level III	CMP333	45
40	Oracle Programming		
	Oracle Level I	CMP345	45
	Oracle Level II	CMP346	45
	Oracle Level III	CMP347	45
	Oracle Level IV	CMP348	45
50	SAS Programming		
	SAS Programming I	CMP350	45
	SAS Programming II	CMP351	45
	SAS Programming III	CMP352	45
	SAS Programming IV	CMP353	45