

Biotechnology



Potential Careers at Cook

- Regulatory Affairs Clerk
- Document Control Clerk
- Departmental Training Clerk
- Functional Training Coordinator
- Production Coordinator
- Engineering Technician
- Quality Assurance

PROGRAM OVERVIEW

Biotechnology encompasses a wide range of industries that use living organisms to make beneficial products for humanity. Various natural sciences, including cell and molecular biology, microbiology, genetics, physiology, and biochemistry, as well as medicine, engineering, and computer science are interdisciplinary areas of biotechnology.

In the 21st century, we have tremendous potential to advance the field of biotechnology in order to improve the quality of all life. In the last two decades we have seen remarkable advances in many aspects of biotechnology, including new diagnostic procedures for diseases such as cancer, genetic alterations of plants and animals, and production of bacteria that clean up toxic waste.

DEGREE OFFERINGS

Associate of Science (AS) Degree

Prepares students for transfer to four-year colleges. The complete Ivy Tech AS degree in Biotechnology transfers seamlessly to Indiana University - Bloomington. Many other four-year institutions accept credits from the Ivy Tech Biotechnology program.

Associate of Applied Science (AAS) Degree

Prepares students for careers in biotechnology and medical device industries. You can choose classes to focus your degree in:

Regulatory Affairs

Regulatory affairs is an area within certain industries, such as food, pharmaceutical, and medical device industries, that ensures company compliance with mandated governmental regulations. Regulatory Affairs professionals work with federal (FDA), state, and local regulatory agencies and personnel on specific issues affecting their businesses. This Associate of Applied Science program focuses on food and drug law, product life cycles, clinical trials, post market issues, technical writing, and risk management.

Technical Focus

This focus emphasizes teaching students analysis of biological molecules, recombinant DNA technology, cell culture skills using bioreactors and fermentors, and small and large scale biomolecule purification. Key program objectives include practicing within full compliance of the biotechnology regulatory environment, practicing good documentation, and laboratory and plant safety skills.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

All certificates on the left lead to an Associate of Applied Sciences in Biotechnology degree. Medical Device Quality also leads to Design Technology. See *Design Technology flyer* for details.

CERTIFICATES

Regulatory Affairs

ENGL 111	English Composition
ENGL 211	Technical Writing
BIOT 214	Food and Drug Law
BIOT 215	Clinical Trials
BIOT 216	Risk Management
BIOT 218	Product Life Cycle
TOTAL CREDIT HOURS = 18	

Pharmaceutical Manufacturing

BIOT 100	Survey of Biotechnology
BIOT 102	Survey of Biotechnology Manufacturing
BIOT 103	Safety and Regulatory Compliance
BIOT 104	Quality Practices
BIOT 105	Survey of Regulatory Affairs
BIOT 110	Pharmaceutical Product Manufacturing
TOTAL CREDIT HOURS = 18	

Medical Device Quality

BIOT 100	Survey of Biotechnology
BIOT 102	Survey of Biotechnology Manufacturing
BIOT 103	Safety and Regulatory Compliance
BIOT 104	Quality Practices
DESN 101	Introduction to Design Technology
INDT 108	Metrology
TOTAL CREDIT HOURS = 18	

DEGREES

Biotechnology, AAS

CHEM 105	General Chemistry I
CHEM 106	General Chemistry II
MATH 136	College Algebra
BIOL 121	General Biology I
BIOT 100	Survey of Biotechnology
BIOT 103	Safety and Regulatory Compliance
BIOT 106	Biotechnology Lab
XXXX XXX*	Humanities/ Social Science
IVYT XXX*	Life Skills Course
COMM 101	Fund of Public Speaking
BIOT 201	Cell Culture
BIOT 211	Analytical Methods I
BIOT 212	Analytical Methods II
BIOT 279	Biotechnology Capstone
BIOT 280	Biotechnology Internship
TOTAL CREDIT HOURS = 63	

Biotechnology, AAS

CHEM 105	General Chemistry I
CHEM 106	General Chemistry II
MATH 136	College Algebra
BIOL 121	General Biology I
BIOT 106	Biotechnology Lab
Elective	Humanities/ Social Science
IVYT XXX*	Life Skills Course
COMM 101	Fund of Public Speaking
BIOT 201	Cell Culture
BIOT 211	Analytical Methods I
BIOT 212	Analytical Methods II
BIOT 279	Biotechnology Capstone
BIOT 280	Biotechnology Internship
ENGL 111	English Composition
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student



Business Administration



Potential Careers at Cook

- Clerk
- Coordinator
- Project Manager
- Administrative Clerk
- Administrative Assistant
- Customer Service
- Sales Operations
- Accounts Payable/ Receivable Clerk
- Marketing Clerk
- Finance Clerk

PROGRAM OVERVIEW

Whether you want to advance your career at Cook or to continue your education at a four-year institution, the Business Administration program can be a stepping stone on your path to success. The program provides outstanding career opportunities by giving you the skills you need to succeed.

DEGREE OFFERINGS

Associate of Science (AS) Degree

Prepares students for transfer to four-year colleges.

Associate of Applied Science (AAS) Degree

Prepares students for careers in business administration. You can choose classes to focus your degree in:

Entrepreneurship

This focus area includes a Business Development course that is designed to help students develop a business plan.

WHY CHOOSE BUSINESS ADMINISTRATION?

Organizations operate on business principles. A degree in business prepares you to work in a variety of roles. Ivy Tech offers four different degree options in Business Administration. Three of these options, the Technical Certificate, Associate of Applied Science, and Associate of Science, are also available through distance education. All business students are required to complete a common core of five classes that focus on business principles and concepts as well as fundamental accounting and computer skills necessary for successful employment or transfer to a four-year degree. Students seeking to apply for new roles within Cook will take additional professional and technical courses needed to successfully compete.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

The Technical Certificate on the left leads toward the degree listed on the right.

TECHNICAL CERTIFICATE

Business Administration

BUSN 101	Introduction to Business
BOAT 207 or CINS 101	Integrated Microsoft Office Applications or Introduction to Microcomputers
BUSN 105	Principles of Management
ENGL 111	English Composition
IVYT 114	Student Success in Business
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
ACCT 101	Financial Accounting
BUSN 120	Business Ethics and Social Responsibility
MKTG 101	Principles of Marketing
XXXX XXX*	Statewide Elective
XXXX XXX*	Statewide Elective
TOTAL CREDIT HOURS = 31	



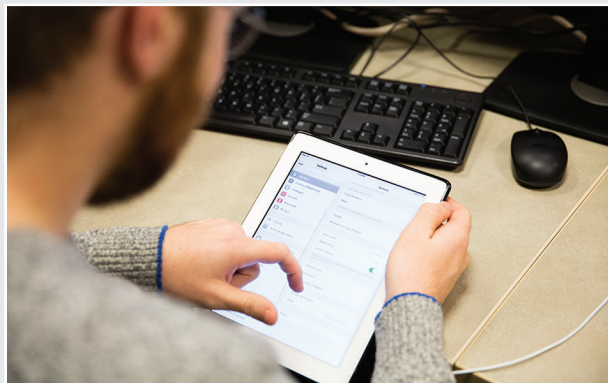
DEGREE

Business Administration, AAS

BUSN 201	Business Law
XXXX XXX*	Statewide Elective
ACCT 102	Managerial Accounting
BUSN 202	Human Resource Management
ECON XXX*	Economics Elective
MATH 123	Quantitative Reasoning
BUSI 279	School of Business Evaluation and Professional Development
XXXX XXX*	Life/Physical Sciences Elective
COMM 101	Fundamentals of Public Speaking
BUSN 204	Case Problems in Business
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student

Cyber Security/Information Assurance



Potential Careers at Cook

- Security Specialist

DEGREE OFFERINGS

Associate of Applied Science (AAS) Degree

Prepares students for careers in cyber security/information assurance.

Associate of Science (AS) Degree

Prepares students for transfer to four-year colleges. The Associate of Science degree in Cyber Security/Information Assurance transfers to several public and colleges and universities in Indiana.

PROGRAM OVERVIEW

The Cyber Security and Information Assurance program prepares students to work in areas related to information assurance and network and computer security. The program also contains material designed for students currently working in the computer industry and students advanced in computer knowledge who require specific knowledge of information and network-related risks and their avoidance and resolution.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

Certificate paths lead toward degrees listed.

CERTIFICATE

Network Security

CSIA 105	Introduction to Cyber Security/ Information Assurance
CSIA 106	Workforce Preparation: CompTIA Security+ Certification
CSIA 210	Network Protocol Analysis
CSIA 215	Perimeter Defense
INFM 109	Informatics Fundamentals
ITSP 135	Hardware/Software Support
NETI 105	Network Fundamentals
NETI 115	Routing and Switching
SVAD 111	Linux and Virtualization Technologies Fundamentals
NETI 116 or NETI 106	Cisco Certification
TOTAL CREDIT HOURS = 27	



TECHNICAL CERTIFICATE

Cyber Security/Information Assurance

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
SDEV 120	Computing Logic
ITSP 136	Workplace Preparation: CompTIA A+ Certification
MATH 136	College Algebra
TOTAL CREDIT HOURS = 33	



DEGREE

Cyber Security/Information Assurance, AAS

CSIA 135	Digital Forensics
COMM 101	Fundamentals of Public Safety
XXXX XXX*	Elective I
XXXX XXX*	Elective II
CSIA 225	Ethical Hacking
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
XXXX XXX*	Elective III
TOTAL CREDIT HOURS = 60	

CERTIFICATE

Digital Forensics

CSIA 105	Introduction to Cyber Security/ Information Assurance
CSIA 106	Workforce Preparation: CompTIA Security+ Certification
CSIA 135	Digital Forensics
CSIA 210	Network Protocol Analysis
CSIA 225	Ethical Hacking
CSIA 235	Advanced Digital Forensics
INFM 109	Informatics Fundamentals
ITSP 135	Hardware/Software Support
ITSP 136	Workplace Preparation: CompTIA A+ Certification
NETI 105	Network Fundamentals
TOTAL CREDIT HOURS = 27	



TECHNICAL CERTIFICATE

Cyber Security/Information Assurance

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
SDEV 120	Computing Logic
NETI 115	Routing and Switching
SVAD 111	Linux and Virtualization Technologies Fundamentals
MATH 136	College Algebra
TOTAL CREDIT HOURS = 33	



DEGREE

Cyber Security/Information Assurance, AAS

CSIA 215	Perimeter Defense
COMM 101	Fundamentals of Public Safety
XXXX XXX*	Elective I
XXXX XXX*	Elective II
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student

Hospitality Administration



Potential Careers at Cook/French Lick/West Baden

- Chefs (Executive, Banquet, Pastry, Sous, Chef De Partie)
- Restaurant/Kitchen Manager
- Food & Beverage Manager
- Guest Services Manager
- Human Resources & Training
- IT- Technology
- Catering/Events
- Sales & Marketing

PROGRAM OVERVIEW

The Hospitality Administration program provides the skills to be successful in the hospitality industry. This exciting, fulfilling career can have advancement opportunities for those who possess the passion and willingness to work hard and serve others.

DEGREE OFFERINGS

Associate of Applied Science (AAS) Degree

Prepares students for careers in hospitality administration. You can choose classes to concentrate your degree in:

Culinary Arts

Ivy Tech's excellent educational kitchen enables us to train you for entry-level positions, such as first, second, or sauté cooks, sous chefs, and garde mangers. The goal is to send you into the food service industry equipped with manual, theoretical, and technical competence.

Baking and Pastry

This area of study is tailored to prepare a graduate to satisfy industry demands for bakers and pastry chefs with the necessary skills and experience and American Culinary Federation Standards for Baker certification.

OUR GRADUATES

Our Baking and Pastry and Culinary Arts graduates are trained according to industry demands and American Culinary Federation Standards for professional certification.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

Certificate paths lead toward degrees listed.

CERTIFICATE

Culinarian

HOSP 101	Sanitation and First Aid
HOSP 102	Basic Food Theory and Skills
HOSP 103	Soups, Stocks, and Sauces
HOSP 104	Nutrition
HOSP 105	Introduction to Baking
HOSP 108	Human Relations Management
TOTAL CREDIT HOURS = 16	



TECHNICAL CERTIFICATE

Culinary Arts

ENGL 111	English Composition
IVYT 116	Student Success in Public Service
HOSP 106	Pantry and Breakfast
HOSP 200	Meat and Seafood Fabrication
HOSP 207	Customer Service
MATH 123	Quantitative Reasoning
TOTAL CREDIT HOURS = 32	



DEGREE

Hospitality Administration: Culinary Arts, AAS

XXXX XXX*	Humanities/Social Behavioral Elective
COMM 101 or COMM 102	Fundamentals of Public Speaking or Introduction to Interpersonal Communication
HOSP 201	Hospitality Purchasing and Cost Control
HOSP 213	Classical Pastries and Chocolates
XXXX XXX*	Life/Physical Science Elective
HOSP 203	Menu, Design, and Layout
HOSP 210	Classical Cuisine
HOSP 212	Garde Manger
HOSP 280	Internship
HOSP 211 or HOSP 221	Specialized Cuisine or Catering Administration
TOTAL CREDIT HOURS = 60	

CERTIFICATE

Pastry Culinarian

HOSP 101	Sanitation and First Aid
HOSP 102	Basic Food Theory and Skills
HOSP 104	Nutrition
HOSP 108	Human Relations Management
HOSP 201	Hospitality Purchasing and Cost Control
HOSP 280	Internship
MATH 123	Quantitative Reasoning
TOTAL CREDIT HOURS = 17	



TECHNICAL CERTIFICATE

Baking and Pastry Arts

ENGL 111	English Composition
IVYT 116	Student Success in Public Service
HOSP 105	Introduction to Baking
HOSP 111	Yeast Breads
HOSP 113	Baking Science
HOSP 208	Cakes, Icing, and Fillings
HOSP 213	Classical Pastries and Chocolates
HOSP 270	Bakery Merchandising
TOTAL CREDIT HOURS = 32	



DEGREE

Hospitality Administration: Baking and Pastry Arts, AAS

XXXX XXX*	Humanities/Social Behavioral Elective
COMM 101 or COMM 102	Fundamentals of Public Speaking or Introduction to Interpersonal Communication
HOSP 207	Customer Service
HOSP 203	Menu, Design, and Layout
XXXX XXX*	Life/Physical Science Elective
HOSP 209	Advanced Decorating and Candies
HOSP 230 or HOSP 232	Wedding Cake Production or Plated Desserts and Pastry Salon Work
HOSP 280	Internship
HOSP 211 or HOSP 221	Specialized Cuisine or Catering Administration
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student



Information Technology Support



Potential Careers at Cook

- Support Services
- Help Desk
- Phone Support

DEGREE OFFERINGS

Associate of Applied Science (AAS) Degree

Prepares students for careers in information technology support.

PROGRAM OVERVIEW

The Information Technology Support program provides students with knowledge and skills needed to deploy, troubleshoot, and support stand-alone and networked computing systems and technology. Courses are designed to provide both technical and soft skills needed to work with computer users. The program is designed to prepare students for a professional career in the computer technology field. Students will learn problem-solving techniques

for practical computer-related issues; skills in computing technology support similar to that in a helpdesk environment; the soft skills needed to interact with and support a diversity of users; the ability to diagnose problems and walk users through resolving these issues; skills in helping users with computer-related issues; and to supporting/repairing computer equipment and training others in using computing technology.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

Certificate paths lead toward degrees listed.

CERTIFICATE

Help Desk

DBMS 110	Database Design and Management
INFM 109	Informatics Fundamentals
ITSP 135	Hardware/Software Support
ITSP 136	Workplace Preparation: CompTIA A+ Certification
NETI 105	Network Fundamentals
ITSP 165	Frontline IT Customer Service
ITSP 225	Help Desk Software and Technology Support
SVAD 121	Enterprise Computing
TOTAL CREDIT HOURS = 23	



TECHNICAL CERTIFICATE

Information Technology Support

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
CSIA 105	Introduction to Cyber Security/Information Assurance
SDEV 120	Computing Logic
SVAD 111	Linux and Virtualization Technologies Fundamentals
TOTAL CREDIT HOURS = 30	



DEGREE

Information Technology Support, AAS

MATH 123	Quantitative Reasoning
COMM 101	Fundamentals of Public Safety
CPIN 239	Systems Analysis and Design
ITSP 215	Mobile/Wireless Computing Support
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
XXXX XXX*	Elective I
XXXX XXX*	Elective II
XXXX XXX*	Elective III
TOTAL CREDIT HOURS = 60	

CERTIFICATE

Information Technology Support

CSIA 105	Introduction to Cyber Security/Information Assurance
INFM 109	Informatics Fundamentals
ITSP 135	Hardware/Software Support
ITSP 136	Workplace Preparation: CompTIA A+ Certification
ITSP 215	Mobile/Wireless Computing Support
NETI 105	Network Fundamentals
NETI 115	Routing and Switching
SVAD 121	Enterprise Computing
CSIA 106 or NETI 114 or NETI 116	Workplace Preparation: CompTIA Security+ Certification or Workforce Preparation: Cisco Certified Entry Networking Technician (CCENT) Certification or Workforce Preparation: Cisco Certified Entry Networking Technician (CCENT) Certification
TOTAL CREDIT HOURS = 24	



TECHNICAL CERTIFICATE

Information Technology Support

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
SDEV 120	Computing Logic
ITSP 165	Frontline IT Customer Service
SVAD 111	Linux and Virtualization Technologies Fundamentals
TOTAL CREDIT HOURS = 30	



DEGREE

Information Technology Support, AAS

MATH 123	Quantitative Reasoning
COMM 101	Fundamentals of Public Safety
CPIN 239	Systems Analysis and Design
DBMS 110	Database Design and Management
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
XXXX XXX*	Elective I
XXXX XXX*	Elective II
XXXX XXX*	Elective III
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student



Network Infrastructure



Potential Careers at Cook

- Network Security
- Infrastructure

DEGREE OFFERINGS

Associate of Applied Science (AAS) Degree

Prepares students for careers in network infrastructure.

PROGRAM OVERVIEW

The Network Infrastructure program is dedicated to enhancing students' knowledge and practical skills in relevant infrastructure design and implementation in all areas of digital communication and connectivity. The program focuses on current and relevant enterprise-level computer network configuration, management, and security outcomes, including cabling, radio frequency troubleshooting and behaviors, routing and switching, theoretical communications models, dedicated storage networks, voice over internet protocol, network security concepts/best-practices and industry certification preparation. Students earning this degree will have the technical knowledge and skills to work, and play an administrative role, in any field requiring professionally designed, implemented, or maintained network infrastructures.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

Certificate path leads toward degree listed.

TECHNICAL CERTIFICATE

Network Infrastructure

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
ITSP 135	Hardware/Software Support
INFM 109	Informatics Fundamentals
MATH 123	Quantitative Reasoning
ITSP 136	Workplace Preparation: CompTIA A+ Certification
SDEV 120	Computing Logic
SVAD 111	Linux and Virtualization Technologies Fundamentals
SVAD 121	Enterprise Computing
TOTAL CREDIT HOURS = 32	



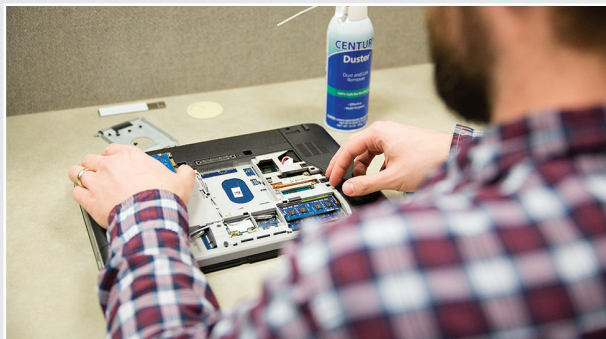
DEGREE

Network Infrastructure, AAS

NETI 205	Scaling Networks
COMM 101	Fundamentals of Public Safety
NETI XXX*	Elective I
NETI XXX*	Elective II
NETI XXX*	Elective III
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
NETI XXX*	Elective IV
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student

Software Development



Potential Careers at Cook

- jBASE Development

DEGREE OFFERINGS

Associate of Applied Science (AAS) Degree

Prepares students for careers in software development.

Associate of Science (AS) Degree

Prepares students for transfer to four-year colleges. The AS degree in Software Development transfers to several public and colleges and universities in Indiana.

PROGRAM OVERVIEW

The Software Development program prepares students to develop, test, implement, and maintain the software applications that people use every day with their computers, mobile devices, game consoles, and other technological devices. The Software Development program includes relevant programming/scripting languages, web management/development software, and web server administration. The Software Development program prepares students to start a career in the fast-changing world of information technology with practical knowledge and skills for an entry-level position in software development.

To learn more, contact your local Cook Human Resources team.



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CERTIFICATES LEAD TO FURTHER ACADEMIC AND CAREER OPTIONS.

Certificate path leads toward degree listed.

CERTIFICATE

Web Foundation

DBMS 110	Database Design and Management
INFM 109	Informatics Fundamentals
NETI 100	Network Communications
SDEV 120	Computing Logic
SDEV 140	Introduction to Software Development
SDEV 153	Web Site Development
TOTAL CREDIT HOURS = 18	



TECHNICAL CERTIFICATE

Software Development

ENGL 111	English Composition
IVYT 115	Student Success in Computing and Informatics
ITSP 135	Hardware/Software Support
SDEV 264	Mobile Application Development
XXXX XXX*	Elective I
TOTAL CREDIT HOURS = 32	



DEGREE

Software Development, AAS

MATH 136	College Algebra
COMM 101	Fundamentals of Public Safety
CPIN 239	Systems Analysis and Design
SDEV 250	Client-Side Scripting Languages and Tools
SDEV 265	Software Development Projects
CPIN 269	Computing and Informatics Project Management
CPIN 279	Computing and Informatics Exploration and Evaluation
XXXX XXX*	Humanities/Social & Behavioral Sciences Elective
XXXX XXX*	Life/Physical Sciences Elective
XXXX XXX*	Elective II
TOTAL CREDIT HOURS = 60	

* XXX indicates an elective course chosen by the student