## Application Programming and Development Concentration (9246)

## Associate of Applied Business Degree

This program prepares students for entry-level software development positions in the high demand field of mobile application development. Students will learn how to develop software and design mobile applications for Apple's iPhone/iPad and Android phone and tablets. The primary languages covered include Swift and Java. Students will use both Apple's Xcode and Android Studio integrated development environments to design, develop, and simulate mobile applications. In addition to employment opportunities, students have the option to continue their education beyond the two-year associate degree program by enrolling in bachelor degree programs at local universities.

NOTE: Students planning to transfer to a four-year college are encouraged to take ENGL 1120 English Composition II in addition to the following requirements.

Course
Title
Credit Hours
First Semester

| BUSM 1300 | Introduction to Business | 3 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { ENGL } 1110 \\ & \text { or ENGL } 1111 \end{aligned}$ | English Composition I (A) ${ }^{1}$ or English Composition I (B) | 3 |
| FYEX 1000 | First Year Experience | 1 |
| ITCS 1010 | Programming Logic $\uparrow$ | 3 |
| $\begin{aligned} & \text { ITIS } 1005 \\ & \quad \text { or ITIS } 1007 \end{aligned}$ | Computer Essentials or Principles of Information Technology and Computer Science | 3 |
| MATH 1600 | Survey of College Mathematics ${ }^{2}$ | 3 |
|  | Credit Hours | 16 |

Second Semester
BUSM 2400 Business Communication 3
ITCS 1820 Java Programming I 0 3
ITCS $1825 \quad$ Programming I for iOS $\uparrow$ (Technical) 3
ITDB 1401 SQL Programming and Database Design $₹$
Select course(s) from the Social and Behavioral Sciences Electives List 3
Credit Hours 15
Third Semester
BUSM $2000 \quad$ Principles of Management
ITCS 2820 Java/Android Programming II $\uparrow$
ITCS $2825 \quad$ Programming II for iOS $\uparrow \quad 3$
ITIS $1008 \quad$ Ethics in Information Technology $\uparrow \quad 1$
ITON $1205 \quad$ Network+ and Networking Essentials $\uparrow \quad 2$
Select course(s) from the Arts and Humanities Electives List 3
Credit Hours 15

| Fourth Semester |  |
| :--- | :--- |
| BUSM 1700 | Principles of E-Business |

ITCS 2821 Java/Android Programming III F 2
ITCS 2826 Programming III for iOS $\uparrow \quad 2$
ITIS $2890 \quad$ Information Technology and Computer Science Capstone $\mathbb{F} 2$
Select course(s) from the Technical Electives List 3
Select course(s) from the Natural Sciences Electives List 3
Credit Hours $\quad 15$

Total Credit Hours 61

1 English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).
2 Students planning to transfer to a four-year college should take a sequence of math as advised by their counselor.
$\approx \quad$ This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

## Electives

| Course | Title | Credit Hours |
| :---: | :---: | :---: |
| Technical Electives |  |  |
| ITCS 1870 | Python Programming I | 3 |
| ITCS 2848 | .NET Programming | 3 |
| Natural Sciences |  |  |
| CHEM 1050 | Chemistry in the Everyday World | 3 |
| PSCI 1300 | Earth Science | 3 |
| PSCI 1400 | Introduction to Meteorology | 3 |
| Any other Natural Sciences laboratory course included in the Ohio Transfer 36 |  |  |
| Arts and Humanities |  |  |
| ARTS 1120 | Art Appreciation | 3 |
| ARTS 2220 | Survey of Art I | 3 |
| ARTS 2230 | Survey of Art II | 3 |
| ENGL 2250 | Survey of American Literature I | 3 |
| ENGL 2260 | Survey of American Literature II | 3 |
| ENGL 2280 | Survey of British Literature I | 3 |
| ENGL 2290 | Survey of British Literature II | 3 |
| HUMX 1100 | Introduction to Humanities | 3 |
| HUMX 1200 | The American Experience in the Arts | 3 |
| MUSC 1200 | Music Appreciation | 3 |
| MUSC 1215 | World Music | 3 |
| MUSC 1800 | Popular Music: Rock, Jazz, Country, and Hip-Hop | 3 |
| MUSC 2200 | Music History and Literature I | 3 |
| MUSC 2250 | Music History and Literature II | 3 |
| PHIL 1500 | Introduction to Philosophy | 3 |
| PHIL 2000 | Comparative Religion | 3 |
| PHOT 1000 | History of Photography | 3 |
| Social and Behavioral Sciences |  |  |
| ANTH 1160 | Introduction to Cultural Anthropology | 3 |
| ECON 1150 | Basic Economics | 3 |
| ECON 2500 | Principles of Macroeconomics | 3 |
| ECON 2600 | Principles of Microeconomics | 3 |
| GEOG 1500 | Introduction to Geography | 3 |
| GEOG 1600 | World Regional Geography | 3 |
| HIST 1150 | Western Civilization I: Antiquity Through the Reformation | 3 |
| HIST 1250 | Western Civilization II: Age of Revolution Through the Present | 3 |
| HIST 2150 | U.S. History: Colonization Through Reconstruction | 3 |
| HIST 2250 | U.S. History: Reconstruction to the Present | 3 |
| POLS 1300 | U.S. National Government | 3 |
| POLS 2500 | Modern Political Ideologies | 3 |
| PSYC 1500 | Introduction to Psychology | 3 |
| SOCY 1150 | Principles of Sociology | 3 |

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