APPLICATIONS OF COMPUTER TECHNOLOGY (ACT)

ACT 101 Introduction to Information Technology Credits: 3
Typically Offered: Fall, Spring.
Course Description: This course introduces students to the basic concepts of information technology relevant to all applications of computing. Upon completion, students will be well prepared to use computers to solve problems in other domains and pursue more advanced studies in computer science and cybersecurity. This course will prepare students to attempt the pre-professional ITF+ certification exam from CompTIA.

ACT 102 Introduction to Web Page Development Credits: 3
Typically Offered: Fall.
Course Description: This course is an introduction to the design, creation, and maintenance of web pages and websites. Students learn how to critically evaluate website quality, create and maintain quality web pages, investigate web design standards, and create and manipulate images. The course progresses through web design tools HTML, XHTML, Cascading Style Sheets, and concludes with PHP. Each student will develop a fictitious organization website.

ACT 201 Microcomputer Applications Credits: 3
Typically Offered: Spring.
Course Description: Applications of productivity software such as Microsoft Office Word, Excel, Access, and PowerPoint for careers, school, and home. Impact of technology on society by computer information systems, networks, e-commerce, and the Internet is included. Previous computer experience recommended.

ACT 211 Internet Scripting Credits: 3
Typically Offered: Departmental Discretion.
Course Description: This course covers basic internet scripting technologies such as PHP, JavaScript, and ASP. **Prerequisite(s):** A grade of C or higher in ACT 102 and CSC 184.

ACT 301 Applied Database Systems Credits: 3
Typically Offered: Spring.
Course Description: Emphasis is placed upon the core concepts of relational database application development. Students will gain proficiency in Microsoft Access; the concepts learned will allow the students to apply database application development concepts to a real world type application. **Prerequisite(s):** A grade of C or higher in ACT 201 or credit or concurrent enrollment in CSC 184 or CSC 187.

ACT 302 Data Analytics Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Introduction to the application of statistics and algorithms to finding patterns in data sets and building predictive models. Fundamental algorithms for performing descriptive and predictive analytics will be studied along with techniques for judging the utility of models and datasets. Students will gain experience with advanced features of spreadsheet software and specialized statistical software packages for data analysis. 3 hours, offered in Spring semesters. **Prerequisite(s):** A grade of C or higher in CSC 184, ACT 201, or GBA 201 and a grade of C or higher in MAT 111, MAT 111E, GBA 210, or PSY 300.

ACT 311 Web Development Tools Credits: 3
Typically Offered: Departmental Discretion.
Course Description: This course uses Adobe Design Suite tools to lead the student through the process of web-application development. Students will gain knowledge and hands-on practice in building and maintaining web applications using Dreamweaver, Flash, and Photoshop. Students will use Java, PHP and MySql to interact with external databases. **Prerequisite(s):** A grade of C or higher in ACT 211.

ACT 405 Business Intelligence Credits: 3
Typically Offered: Departmental Discretion.
Course Description: Students learn how to make better business decisions, use fewer resources, and improve the company's bottom line by developing and using a data warehouse. This course provides an overview of business intelligence and data warehousing and gives students a look at all the major facets of developing and using a data warehouse to make effective business decisions. **Prerequisite(s):** A grade of C or higher in CSC 305.

ACT 476 Applications of Computer Information Sciences Capstone Credits: 3
Typically Offered: Departmental Discretion.
Course Description: The capstone course will encompass and consolidate all of the concepts covered in the ACT curriculum. In this course, students will manage an Information Systems project, design an appropriate database and incorporate both LAN and Web-based distributed information solutions to support a business process, effectively document the system and incorporate elements of the general education into a successfully implemented information systems solution. **Prerequisite(s):** A grade of C or higher in CSC 400.

ACT 490 Information Technology Career Preparation Credits: 1
Typically Offered: Departmental Discretion.
Course Description: In this course students will begin applying their MWSU education towards building a career in IT. Students will learn how to navigate a career path in IT, explore alternative career paths, and explore opportunities for continuing education and professional development. Students will develop application materials and attempt entrance, exit, and / or certification exams in preparation for graduation, applying to jobs, and applying to graduate schools. **Prerequisite(s):** Senior status and a declared major in ACT.