

IT Systems Support - AAS (66 credits)

Program Plan for eCampus

IT systems support personnel interact with individuals in business, industry, education and government. They provide technical solutions to customer-critical problems related to software applications and relevant hardware. An information technology systems support person may also provide network software and hardware support. This is accomplished through problem analysis using phone service support, direct client service and a variety of electronic means to achieve high-level customer satisfaction and to accomplish the goals of the organization. An information technology systems support person may develop and create technical and procedural documentation and other training materials. They may also plan and conduct actual end-user training sessions. This program prepares students to accomplish these goals through knowledge of installation and maintenance for computer hardware and software, network hardware and software, and various peripherals. Students are also trained in customer service and business skills and provided with many opportunities to strengthen their troubleshooting skills. Students in the program have a wide range of employment opportunities including self-employment and employment in the private, education and government sectors.

Employment Opportunities

The expanding use of computers creates a significant need for individuals skilled in supporting the use of high levels of technology. Individuals, business, industry, education, and government need to interact with individuals that can provide technical solutions to problems related to computer hardware and software applications. Graduates of this occupational major have employment opportunities with a variety of organizations and will have the skills to provide problem analysis and training to those organizations' external or internal customers. Printing, word processing, programming languages, electronic mail, and operating systems are among the many areas of needed support that employees graduating from this program will be in demand to provide.

Course Listing

| Course # | Course Title | Credits |
|---------------------|-------------------------------------|---------|
| Required | | |
| CPTR1104 | Intro to Computer Tech | 3 |
| CPTR1106 | Microcomputer Databases | 3 |
| CPTR1125 | IT Essentials | 3 |
| CPTR1130 | IT Essentials 2 | 3 |
| CPTR1138 | Information Systems | 3 |
| CPTR1142 | Network Essentials | 3 |
| CPTR1148 | Microcomputer Operating System | 3 |
| CPTR2236 | Network Security | 3 |
| CPTR2272 | Network Operating Systems | 3 |
| CTEC2204 | Advanced Technical Support | 3 |
| CTEC2240 | Technical Support Internship | 3 |
| INTD1111 | Hands-On Programming | 3 |
| ITSS1100 | Information Technology Help Desk | 3 |
| ITSS1120 | Information Technology Research ... | 3 |
| ITSS2100 | Supporting End-User Applications | 3 |
| MNTC Courses | | |
| COMM1120 | Introduction to Public Speaking | 3 |
| COMM1130 | Small Group Communication | 3 |
| COMM1140 | Interpersonal Communication | 3 |
| ENGL1101 | College Writing | 3 |
| ENGL1215 | Professional and Technical Writing | 3 |
| HUM2236 | Technology in the Humanities | 3 |
| PHIL1201 | Ethics | 3 |

Total Credits: 66

(†) To complete an AAS degree, courses must be taken from at least 3 of the 10 MNTC Goal Areas.

Similar Programs

IT Systems Support AAS: Detroit Lakes, eCampus
 IT Systems Support Diploma: Detroit Lakes
 IT Systems Support Certificate: Detroit Lakes

Accreditation

The College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, (800) 621-7440, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504.

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CPTR1104 Intro to Computer Tech (3 credits)

This course covers the operation of personal computer hardware and software. It provides an overview of a personal computer operating system and word processing, spreadsheet, presentation, email, scheduling, Internet and database management software. Prerequisite: None

CPTR1125 IT Essentials (3 credits)

This course is designed for students seeking entry-level computer hardware and software skills. Target students include those who want to prepare for careers in information and communication technology (ICT) and students who want to gain skills and working knowledge of how computers work, how to assemble computers and how to troubleshoot hardware and software issues. Prerequisite: None

CPTR1138 Information Systems (3 credits)

This course is an introduction to information systems. Topics include an overview of data communications and information systems used in a variety of organization types, network hardware, software, topologies and resources, hardware and communications standards, and the systems development life cycle. Prerequisite: None

CPTR1148 Microcomputer Operating System (3 credits)

This course covers basic information about computer hardware and software and the use of the Windows operating system. Topics include file management techniques, utilizing common screen elements, multitasking, object linking and customizing the desktop. Prerequisite: None

CPTR2272 Network Operating Systems (3 credits)

This course teaches functions of a network operating system so the student can effectively maintain and manage a network. The student learns how to establish and oversee the operations of a network, create logins, design and establish directory structures and implement security. Prerequisite: Prerequisite: CPTR1148 or CPTR1138 or CPTR1125 or CPTR2224

CTEC2240 Technical Support Internship (3 credits)

This is a hands-on course in a computer industry setting. The student will apply skills, knowledge and behaviors acquired in prior courses to the computer business situation. The student will provide phone and/or direct support to computer customers and gain a working knowledge of the technical analyst position. Prerequisite: None

ITSS1100 Information Technology Help Desk (3 credits)

This course is an introduction to information technology user support. Important skill sets involving customer service, troubleshooting, user support management, product evaluation, user support management and user training are introduced. This course also emphasizes teamwork and technical writing. Prerequisite: None

ITSS2100 Supporting End-User Applications (3 credits)

This course emphasizes the knowledge, skills and abilities necessary to improve the productivity of the computer user. Students will learn about providing support for the user's computer, including the operating system and the software applications installed on the computer. Prerequisite: Prerequisite: ITSS1100

COMM1130 Small Group Communication (3 credits)

Meets MnTC Goal Areas 1 and 2. This course focuses on communication issues in small groups and the importance of small group work in business today. An emphasis will be placed on improving communication skills for successful teamwork, group cohesiveness and the responsibility to group goals and tasks. Students will be provided with opportunities to build their group communication skills through practice. Prerequisite: Assessment into ENGL1101.

ENGL1101 College Writing (3 credits)

Meets MnTC Goal Area 1. This is an introductory writing course designed to prepare students for later college and career writing. The course focuses on developing fluency through a process approach, with particular emphasis on revision. Students will consider purpose and audience, read and discuss writing and further develop their own writing processes through successive revisions to produce polished drafts. Course work will include an introduction to argumentative writing, writing from sources and a short research project. Prerequisite: Prerequisite: Completion of ENGL0050 with a grade of C or higher and completion of ENGL0040, OR ENGL0096 with a grade of C or higher OR placement in ENGL1101. (because of entrance examination score)

CPTR1106 Microcomputer Databases (3 credits)

This course covers database concepts, design and construction using the latest database software. Topics include database normalization and table relationships, database objects, file creation, file manipulation, queries, macros, form development and report generation. Database programming concepts will also be introduced. Prerequisite: None

CPTR1130 IT Essentials 2 (3 credits)

This is an advanced course for computer hardware, including desktop and laptop personal computers, operating systems, basic IT security and basic networking fundamentals. Topics covered include computer hardware and operating system configurations, building a basic network, networking technologies and protocols, and preventive maintenance and troubleshooting of information technology hardware, software, security and networked devices. Prerequisite: Prerequisite: CPTR1125

CPTR1142 Network Essentials (3 credits)

This course gives students both the knowledge and hands-on skills necessary to work with network operating systems in a network administration environment. Prerequisite: None

CPTR2236 Network Security (3 credits)

This course deals with the understanding of basic network security. Students learn how to manage systems to guard against various security threats. Prerequisite: CPTR1148, CPTR2272

CTEC2204 Advanced Technical Support (3 credits)

This course will emphasize advanced technical support topics such as project management, product development, software evaluation and selection, technical writing and end-user training. Students will apply their technical knowledge and experience to actual case studies. Prerequisite: Prerequisite: ITSS1100

INTD1111 Hands-On Programming (3 credits)

This course introduces fundamental programming concepts in an exciting, hands-on learning environment. Using the LEGO MindStorms system, students will implement code to control a robot's senses, actions and reactions. This course will also focus on 21st century skill sets like time management, teamwork, problem solving and communications. Prerequisite: None

ITSS1120 Information Technology Research and Documentation (3 credits)

Using the World Wide Web, students will research current trends and technical issues in information technology. Research topics will include software applications, hardware products, security issues, and technical problems and solutions. Students will develop technical documentation and training materials for the purpose of supporting end users. Emphasis will also be placed on refining Web searching skills to locate vendor documentation, trade journals, white papers and other useful IT resources. Prerequisite: None

COMM1120 Introduction to Public Speaking (3 credits)

Meets MnTC Goal Area 1. This course clarifies the process of oral communication, clarifies the basic principles of public speaking and allows the student to increase the application of these principles while both speaking and listening. Prerequisite: Assessment into ENGL1101

COMM1140 Interpersonal Communication (3 credits)

Meets MnTC Goal Area 1. This course will focus on improving students' abilities to communicate effectively in one-to-one dyadic encounters by providing experience-based instruction. Extensive in-class and out-of-class analyses allow the student to examine his/her own and others' informal social interactions. The long-term goal is for the student to apply interpersonal communication theories to daily interactions and draw his/her own conclusions about the effectiveness of interpersonal communication. Prerequisite: Assessment into ENGL1101

ENGL1215 Professional and Technical Writing (3 credits)

Meets MnTC Goal Area 1. This course provides instruction in writing and designing professional and technical documents, including print and non-print correspondence, descriptions, instructions, reports and proposals, along with promotional material. Analysis, critical thinking and synthesis of sources will be covered, along with the development of presentation skills. Coursework also includes a formally documented, multi-source professional project. Prerequisite: Prerequisite: ENGL 1101 College Writing

HUM2236 Technology in the Humanities (3 credits)

Meets MnTC Goal Areas 2, 6 and 8. Developments in the arts, architecture, science, philosophy and education and studies in human interaction are often provoked by changes in technology. Early changes in military technology made it possible for civilizations to take charge of various places on the world's stage. However, over time, changes in how the world was understood, motivated by general advances in global exploration, astronomy and other sciences as well as specific inventions such as movable type, proved even more instrumental in driving people to new and different understandings of what it means to be human. This course explores how technology impacts developments in a culture's world view and tries to anticipate how future changes in technology might alter the course of otherwise established ways of life. Prerequisite: None

PHIL1201 Ethics (3 credits)

Meets MnTC Goal Areas 2, 6 and 9. This course is an introduction to the topic of ethics. In this course, the following questions are examined: What is ethics? How do we make ethical decisions? Are things that are legally right necessarily right? Should we consider our own interests when making ethical decisions? Are things ethically right simply because God says they are right? If our culture says something is ethically right, does that mean it is ethically right? The course also examines numerous topical ethical issues such as racism, terrorism and censorship. Prerequisite: None

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1st Fall Semester

| Course # | Crd | Course Title | Lec/Lab/OJT |
|-----------|--------------|----------------------------------|-------------|
| CPTR1104 | 3 | Intro to Computer Tech | 2/1/0 |
| CPTR1125 | 3 | IT Essentials | 1/2/0 |
| CPTR1138 | 3 | Information Systems | 2/1/0 |
| ITSS1100 | 3 | Information Technology Help Desk | 2/1/0 |
| ENGL1101 | 3 | College Writing | 3/0/0 |
| 15 | Total | | |

1st Spring Semester

| Course # | Crd | Course Title | Lec/Lab/OJT |
|-----------|--------------|---|-------------|
| CPTR1106 | 3 | Microcomputer Databases | 2/1/0 |
| CPTR1130 | 3 | IT Essentials 2 | 1/2/0 |
| CPTR1142 | 3 | Network Essentials | 2/1/0 |
| CPTR1148 | 3 | Microcomputer Operating System | 1/2/0 |
| ITSS1120 | 3 | Information Technology Research and Documentation | 1/2/0 |
| COMM1130 | 3 | Small Group Communication | 3/0/0 |
| 18 | Total | | |

2nd Fall Semester

| Course # | Crd | Course Title | Lec/Lab/OJT |
|-----------|--------------|----------------------------------|-------------|
| CPTR2236 | 3 | Network Security | 2/1/0 |
| CPTR2272 | 3 | Network Operating Systems | 2/1/0 |
| INTD1111 | 3 | Hands-On Programming | 2/1/0 |
| ITSS2100 | 3 | Supporting End-User Applications | 2/1/0 |
| COMM1120 | 3 | Introduction to Public Speaking | 3/0/0 |
| HUM2236 | 3 | Technology in the Humanities | 3/0/0 |
| 18 | Total | | |

2nd Spring Semester

| Course # | Crd | Course Title | Lec/Lab/OJT |
|-----------|--------------|------------------------------------|-------------|
| CTEC2204 | 3 | Advanced Technical Support | 2/1/0 |
| CTEC2240 | 3 | Technical Support Internship | 0/0/3 |
| COMM1140 | 3 | Interpersonal Communication | 3/0/0 |
| ENGL1215 | 3 | Professional and Technical Writing | 3/0/0 |
| PHIL1201 | 3 | Ethics | 3/0/0 |
| 15 | Total | | |