

Information Technology Assessment Plan

Philosophy

North Iowa Area Community College believes that education, which has as its overriding goal the optimum development of all human potential, is the foundation of a democratic society.

Mission Statement

The mission of the North Iowa Area Community College is to enhance the quality of life for people of North Iowa through comprehensive educational opportunities, progressive partnerships, exemplary service, and responsive leadership.

Institutional Purposes

Within the human, financial, and physical resources entrusted to the North Iowa Area Community College, the institution strives to achieve the following goals:

- Enhance the human potential of students by assisting them to acquire the knowledge and tools necessary to understand and enrich their environment and contribute to their communities in a positive way. This becomes manifest through the development of general education skills and abilities.
- Ensure that all citizens of the North Iowa region, regardless of their educational and socioeconomic backgrounds, geographic placement, or needs for special assistance, have the opportunity and the necessary support to take advantage of post-secondary educational programs and other services offered by the College.
- Enable individuals to complete the first two years of a baccalaureate program and, upon successful completion, to achieve efficient and effective transfer to senior colleges.
- Ensure that individuals have opportunities to prepare themselves for employment in occupations in demand in a global society.
- Ensure that individuals have opportunities to continue learning throughout their lifetimes.
- Promote a strong economy by engaging in activities which develop and maintain a skilled and educated workforce and which promote and support entrepreneurial activity.
- Extend the reach of College resources through progressive partnerships with agencies and entities in communities served by the College.
- Build community by promoting understanding, appreciation, cooperation, and communication among diverse individuals.
- Instill confidence and pride in all who come into contact with the College by fostering a commitment to excellence in all College endeavors.

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Information Technology Goals

1. Students can apply acquired learning to new and different challenges.
2. Students will gain the skills, knowledge, and tools to be prepared for employment and advancement in the field of Information Technology.
3. Students will learn and apply general education skills that help them achieve their career and life goals.
4. Students will develop the essential professional, ethical, and social values required in Information Technology fields.

Desired Learning Outcomes

Goal #1 – Students can apply acquired learning to new and different challenges.

1. Use self-developed resources (i.e. journals, notes, labs, procedures) and formal education to formulate solutions.
2. Apply formal education to learn new technologies.
3. Recognize the importance of life-long learning to:
 - Become a more highly skilled worker
 - Enjoy a more personally rewarding life
 - Live in a global society
 - Accept diversity in people and ideas
 - Be an ethical corporate citizen
4. Demonstrate creative thinking:
 - Generate **new-fangled** ideas
 - Accept change and newness
 - Incorporate an iterative process to improve ideas and solutions
 - Employ creative methods
 - Evolution, Synthesis, Revolution, Reapplication, Changing Direction
5. The ability to accept change and newness, a willingness to play with ideas and possibilities, a flexible outlook, looking for ways to improve

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Goal #2 – Students will gain the skills, knowledge, and tools to be prepared for employment and advancement in the field of Information Technology.

Information Systems Technology

General Core Learning Outcomes

1. Employ hardware and software installation, configuration, and file maintenance methods in stand-alone and networked environments.
IT Essentials, Cisco Networking, Technology Essentials
2. Describe local area networks and their application in business.
IT Essentials, Cisco Networking, Technology Essentials
3. Create and maintain a web site.
Beginning Web Page Development, Web Development I
4. Investigate, identify and implement solutions for technology related issues.
Cisco Networking (assessment level all students)
5. Recognize and apply basic project management methods utilized in an IT work environment.
Fundamental Project Management, Networking LANs and WANs, Customer User Support
6. Conduct a presentation of skills, work product, and ability to compete in a global market.
Electronic Portfolios

Concentration Specific Learning Outcomes

Network Administration

- Construct an enterprise-level local area network.
- Implement an enterprise-level wide area network with interconnecting local area networks.
- Employ current network security techniques, standards, and systems in LAN and WAN environments.

Cyber Security and Integrity (CSI)

- Construct a local area network.
- Implement a wide area network with interconnecting local area networks.
- Design and implement network security plans to restrict unauthorized access and ensure data integrity, system reliability, and information confidentiality within and between organizations.

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Software and Video Game Testing

- Produce concise and understandable testing reports.
- Use database software to input, organize, and track bug reports.
- Apply basic programming design
- Apply basic database design

Management Information Systems

- Apply general computer programming logic.
- Write an application program using an industry accepted programming language
- Recognize business systems & methods of analysis.
- Identify, select, and employ the correct software applications to solve business information problems

Desktop Systems

1. Identify, select, and employ the correct software applications to solve business information problems
2. Apply mastery of software features and functions to aid users in accomplishing business tasks.
3. Install new hardware and/or replacement components.
4. Investigate, identify and implement solutions for hardware and software issues.
5. Install operating systems, drivers, applications, and updates.
6. Implement systems to identify, remove, and prevent viruses, Trojans, worms, and spy ware using available software.
7. Demonstrate suitable customer service and computer user support skills.

PC Technician

- Select appropriate components required to build, repair, and/or troubleshoot systems incorporating correct computer system standards.
- Apply mastery of hardware functionality to specify systems and components to support individuals and business.
- Install new hardware and/or replacement components.
- Investigate, identify and implement solutions for hardware and software issues.
- Install operating systems, drivers, applications, and updates.
- Implement systems to identify, remove, and prevent viruses, Trojans, worms, and spy ware using available software.
- Demonstrate suitable customer service and computer user support skills.

IST/Accounting

- Identify, select, and employ the correct software applications to solve business information problems, i.e. using a database for inventory rather than word processing.
- Payroll, computer Accounting – *Get these from Greg*
- Install new hardware and/or replacement components.
- Investigate, identify and implement solutions for hardware and software issues.
- Install operating systems, drivers, applications, and updates.

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- Code professional web pages using Internet standard XHTML and web-authoring tools.
- Write web pages using proven programming techniques.
- Create two-dimensional designs that follow established art standards.
- Design visually-pleasing graphics that both inform and persuade
- Generate two-dimensional animations that add value to the web site.
- Capture and manipulate digital images using cameras, scanners and other appropriate equipment.
- Research solutions to real business problems.
- Collect and document the marketing needs of real businesses.
- Work as an individual and as part of a development team and document best work in an electronic portfolio.

Graphic Communications

General Core Learning Outcomes

1. Convert a simple idea into print-ready computer-based graphics.
2. Produce professional-quality designs using industry-standard software and methods.
3. Create two-dimensional designs that follow established art standards.
4. Design visually-pleasing graphics that both inform and persuade.
5. Generate two-dimensional animations.
6. Capture and manipulate digital images using cameras, scanners and other appropriate equipment.
7. Investigate, identify and implement solutions to real business problems.
8. Collect and document the marketing needs of real businesses.
9. Work as an individual and as part of a development team and document their best work in an electronic portfolio.

Senior Network Administration

General Core Learning Outcomes

1. Create a foundation or apprentice-level knowledge of network design and project management skills to implement.
2. Implement scalable campus Local Area Networks (LANs) using advanced Multi-layer switching techniques.
3. Implement scalable routed Wide Area Networks (WANs) using advanced routing techniques and remote access.

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4. Apply troubleshooting and support skills for networks of various sizes.

Goal # 3 – Students will learn and apply general education skills.

General Education Learning Outcomes

1. Information Literacy
 - Locate and apply reference information found in technical and other resources in an effective, efficient and concise manner.
2. Communications and Interpersonal skills
 - Organize ideas and communicate orally.
 - Communicate thoughts, ideas, information, and messages through written, visual, and electronic methods such as: reports, presentations, graphs, and flow charts.
 - Demonstrate the ability to work effectively in a team environment.
3. Critical Thinking
 - Analyze and evaluate information to form judgments, identify opportunities and develop solutions outside the body of knowledge.

Goal #4 – Students will develop the essential professional, ethical, and social values required in Information Technology fields.

1. Demonstrate obligations to employers, management, fellow workers, and society to:
 - Protect the privacy and confidentiality of all information entrusted to them.
 - Support, respect, and abide by the appropriate local, state, provincial, and federal laws.
 - Share knowledge of ethical and legal use of hardware, software, and information when interacting with others.

Strategies for Assessing Learning Outcomes

The Information Technology Department plans to determine the efficacy of its programs with respect to the aforementioned learning outcomes via a variety of methods.

Program-level Strategies

1. Student Electronic Portfolios
 - Require students to collect work examples for each course
Instructors to collectively identify specific required examples (no e-portfolio assessment at this point)
 - Required Electronic Portfolio Course

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Evaluation Rubric

- Required E-Portfolio Presentation prior to graduation
3rd party i.e. employers, staff, other outside faculty evaluate student presentations using on-line assessment forms. Data collected at this time.
- 2. Program Completion Assessment
 - This assessment consists of questions specific to the core and concentration learning outcomes.
Recommended to be part of Electronic Portfolio course

Concentration-level Strategies

Concentration-level strategies are coordinated through assigned concentration leaders and administered by instructors at the course level. Analysis and decision-making are accomplished by the concentration teams.

1. Capstone Courses
2. Case Studies
3. Work Experience
4. Internships

Course-level Strategies

Course-level strategies are designed and implemented by individual instructors and teams to evaluate specific learning outcomes.

1. Pre-Test/Post-Test
2. Surveys
3. Rubrics
4. Journals
5. Classroom Research
6. Projects
7. Peer-review

Process for Analyzing and Using the Results

Recurring Review Meetings

The Information Technology Department will meet three times a year as follows:

1. Spring Staff Development Week
 - Instructors collectively analyze results of program level data.
 - Identify potential areas for change
2. Fall Staff Development Week

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- Review results with Advisory Committee identify specific change proposals
3. Winter Staff Development Week
- Review specific change proposals with Advisory Committee

Acquire Academic Affairs approval for program and course changes

Implement approved program and course changes and Advisory Committee recommendations

Timetable for Implementation

To be determined...