



CREDIT COURSE OUTLINE

I. COVER PAGE

(1) IS 12	(2) COMPUTER LITERACY	(3) 3
Number	Title	Units

(4) Lecture / Lab Hours:	(8) Classification:
Course Hours	
Weekly Lec hours: 3.00	Degree applicable: X
Weekly Lab hours: 1.00	Non-degree applicable:
Total Contact hours: 72.00	Basic skills:
Lec will generate __ hour(s) outside work.	(9)RC Fulfills AS/AA degree requirement: (area)
Lab will generate __ hour(s) outside work.	Computer Familiarity
(5) Grading Basis: Grading Scale Only	General education category:
Pass/No Pass option X	Major:
Pass/No Pass only	Certificate of: Human Services
(6) Advisories:	Certificate in:
• Eligibility for English 125, 126, and Mathematics 201.	(10)CSU Baccalaureate: X
(7) Pre-requisites (requires C grade or better):	(11)Repeatable: (A course may be repeated three times) 0
Corequisites:	(12)C-ID:
	Proposed Start Date: Fall 2012

(12) Catalog Description:
 Basic introduction to computers and their usage. Basic principles of hardware and software; shopping for a personal computer; social issues associated with the role of computers in the world today; and an introduction to word processing, spreadsheets, Internet principles and usage. (Not for Business Majors - Business Majors need to take Information Systems 15)

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

- I. Demonstrate understanding of Information-Technology (IT) concepts in hardware, software, and networks.
- II. Apply effective information-technology skills to perform practical business functions that include word processing, spreadsheet, presentational, and database management applications.
- III. Demonstrate critical thinking to solve technology problems ethically and effectively.

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

- I. study the concepts of computer hardware, network devices, and software
- II. learn computer operating systems and utility programs
- III. train to use productivity software-- word processing, spreadsheet, database, and presentation
- IV. identify the major contributors and developments of the microcomputer
- V. explore privacy and legal issues of information systems
- VI. practice using various Internet technology

IV. COURSE OUTLINE:

Lecture Content:

I. Introduction to Computers

1. What Is a Computer
2. Advantages and Disadvantages
3. Networks and the Internet
4. Computer software
5. Categories of computers
 1. Personal Computers

2. Mobile Computers & Devices
3. Game Consoles
4. Servers
5. Mainframes
6. Supercomputers
6. Elements of Information Systems
7. Examples of Computer Usage

II. The Internet and World Wide Web

1. The Internet
2. Evolution of the Internet
3. World Wide Web
 1. Internet 2
 2. Connecting
 3. How Data and Information Travel the Internet
 4. Internet Addresses Browsing
 5. Web Addresses
 6. Navigation Web Pages
 7. Searching the Web
 8. Evaluation a Web Site
 9. Multimedia
 - a. Audio
 - b. VR
 - c. Images
 10. Web Publishing
4. E-Commerce
5. Other Internet Services
 1. E-mail
 2. Instant Messaging
 3. Chat Rooms
 4. VoIP
 5. FT

III. Components of the System Unit

1. The System Unit
2. Processor
 1. Control Unit
 2. Arithmetic Logic Unit
 3. Machine Cycle
 4. System Clock
 5. Processor Cooling
 6. Parallel Processing
3. Data Representation
4. Memory
 1. Sizes
 2. Types
 3. RAM
 4. ROM
 5. Cache
 6. Flash Memory
 7. CMOS
 8. Access Times
5. Expansion Slots and Adapter Cards
6. Ports and Connectors
7. Buses
8. Bays
9. Power Supply

IV. Input Devices

1. Input
2. Keyboard
3. Pointing
4. Mouse
5. Touch Screens and Touch Sensitive Pads
6. Smart Phones
7. Game Controllers
8. Digital Cameras
9. Video Input
10. Scanners and Reading Devices
 1. Optical
 2. Readers
 3. Bar Code
 4. RFID
 5. Magnetic Stripe Card
 6. MICR

- 7. Data Collection
- 11. Biometric
- 12. Terminals
 - 1. POS Terminals
 - 2. ATM
 - 3. DVD Kiosks
- 13. Physically Challenged

V. Output Devices

- 1. Input
- 2. Display Devices
 - 1. LCD & Plasma
 - a. Technology
 - b. Quality
 - c. Chips
- 3. Printers
 - 1. Nonimpact
 - 2. Ink-Jet
 - 3. Photo
 - 4. Laser
 - 5. Multifunction
 - 6. Thermal
 - 7. Mobile
 - 8. Label & Postage
 - 9. Plotters
 - 10. Impact
- 4. Speakers, Headphones, and Earbuds
- 5. Other Output Devices
 - 1. Data Projectors
 - 2. Whiteboard
 - 3. Force Feedback Controllers
 - 4. Tactile Output

VI. Storage

- 1. Hard Disk
 - 1. External
 - 2. Removable
 - 3. Miniature
 - 4. RAID
 - 5. NAS
 - 6. Controllers
- 2. Flash Memory Storage
 - 1. Solid State Drives
 - 2. Memory Cards
 - 3. USB Flash Drives
 - 4. Express Card Modules
- 3. Cloud Storage
- 4. Optical Discs
 - 1. CD+-R
 - 2. CD+-RW
 - 3. DVD+-R
 - 4. DVD+-RW
 - 5. Blu-ray
- 5. Other Types of Storage
 - 1. Tape
 - 2. Magnetic Cards
 - 3. Smart Cards
 - 4. Microfilm
 - 5. Microfiche
 - 6. Enterprise Storage

VII. Operating systems and Utility Programs

- 1. System Software
- 2. Operating Systems Functions
 - 1. GUI
 - 2. Command-Line Interface
 - 3. Managing Programs
 - 4. Managing Memory
 - 5. Coordination Tasks
 - 6. Configuring Devices
 - 7. File Management
 - 8. Network
 - 9. Administering Security
- 3. Types of Operating Systems
- 4. Stand-Alone Operating Systems

- 5. Server Operating Systems
- 6. Embedded Operating Systems
 - 1. Mobile
- 7. Utility Programs
 - 1. Manager
 - 2. Search
 - 3. Viewer
 - 4. Uninstaller
 - 5. Cleanup
 - 6. Defragment
 - 7. Restore
 - 8. Firewall
 - 9. Antivirus
 - 10. Spyware & Adware
 - 11. Internet Filters
 - 12. Media Players

VIII. Communications and Networks

- 1. Communications
- 2. Networks
 - 1. LANS
 - 2. MANS
 - 3. WANS
 - a. Architectures
 - 4. Topologies
- 3. Standards
 - 1. Ethernet
 - 2. Token Ring
 - 3. TCP/IP
 - 4. Wi-Fi
 - 5. Bluetooth
 - 6. UWB
 - 7. IrDA
 - 8. RFID
 - 9. WiMax
 - 10. WAP
- 4. Communications Software
- 5. Telephone Network
 - 1. Dedicated Lines
 - 2. ISDN
 - 3. DSL
 - 4. FTTP
 - 5. T-Carrier Lines
 - 6. ATM
- 6. Communications Devices
- 7. Communications Channel
- 8. Physical Transmission
- 9. Wireless Transmission

Lab Content:

I. Operating systems

- 1. Navigation
- 2. File Management
- 3. System Tool

II. Internet Browsers

- 1. Exploring & Navigation
- 2. Tabbed Browsing & Favorites
- 3. Searching Information & Printing

III. Word Processing

- 1. Creating documents
- 2. Editing Documents
- 3. Formatting Text and Paragraphs
- 4. Formatting Documents

IV. Spreadsheets

- 1. Creating a Spreadsheet
- 2. Working with formulas and Functions
- 3. Formatting a Worksheet
- 4. Working with charts

V. Presentation Software

- 1. Creating a Presentation
- 2. Modifying a Presentation
- 3. Inserting Object into a Presentation

4. Finishing a Presentation.

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

I. Sample Text Title:

1. Recommended - Shelly/ Cashman/Vermat *1. Discovering Computers 2012 Introduction* , -, 2012,
2. Recommended - Beskeen Cram Duffy Friedrichsen Reding *Microsoft Office 2010, Illustrated Brief* , 2012,

II. Other Readings

- Global or international materials or concepts are appropriately included in this course
 Multicultural materials and concepts are appropriately included in this course

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

This course includes the use of the Internet and concepts of Web Page design. This course provides the students with an understanding of websites that are global and that a web presence must consider International and multicultural differences

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B, or C.

A. Writing			
Check either 1 or 2 below			
X	1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.		
	2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.		
	a) essay exam(s)		d) written homework
	b) term or other paper(s)		e) reading reports
	c) laboratory report(s)	X	f) other (specify) 1. Write a short report. 2. Write business letters. 3. Write short business papers. 4. Internet Reports

Required assignments may include but are not limited to the following:

List and describe the purposes, advantages, and disadvantages of input devices, output devices, and storage devices used by high-school teachers to do their class attendance, grades, and communications.

B. Problem Solving			
Computational or non-computational problem-solving demonstrations, including:			
X	a) exam(s)		d) laboratory reports
X	b) quizzes		e) field work
X	c) homework problems		f) other (specify):

Required assignments may include but are not limited to the following:

- 1) Use the Internet to gather reference material

1) Sample Multiple-choice question:

A (n) _____ file is the program that you run to start the software program.

- a. running
- b. start
- c. support
- d. executable

C. Skill demonstrations, including:			
	a) class performance(s)	X	c) performance exams(s)
	b) field work		d) other (specify)

Required assignments may include but are not limited to the following:

Creating and editing Word, Excel and PowerPoint documents

D. Objective examinations including:			
X	a) multiple choice		d) completion
X	b) true/false		e) other (specify):

X	c) matching items
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COURSE GRADE DETERMINATION:

Description/explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

60% = Exams, 30% = Lab Assignments, 10% = Class Project - (Presentation/Portfolio/Internet Research)

VII. EDUCATIONAL MATERIALS

For degree applicable courses, the adopted texts, as listed in the college bookstore, or instructor-prepared materials have been certified to contain college-level materials.

Validation Language Level (check where applicable):

College-Level Criteria Met

YES	NO
<u>X</u>	<u> </u>
<u> </u>	<u>X</u>
<u> </u>	<u>X</u>
<u> </u>	<u>X</u>

- Textbook
- Reference materials
- Instructor-prepared materials
- Audio-visual materials

Indicate Method of evaluation:

- Used readability formulae (grade level 10 or higher)
- Text is used in a college-level course X
- Used grading provided by publisher
- Other: (please explain; relate to Skills Levels)

Computation Level (Eligible for MATH 101 level or higher where applicable) X

- Content X
- Breadth of ideas covered clearly meets college-level learning objectives of this course X
- Presentation of content and/or exercises/projects: X
- Requires a variety of problem-solving strategies including inductive and deductive reasoning. X
- Requires independent thought and study X
- Applies transferring knowledge and skills appropriately and efficiently to new situations or problems. X

List of Reading/Educational Materials

- Recommended - Shelly/ Cashman/Vermat *1. Discovering Computers 2012 Introduction* , -, 2012,
- Recommended - Beskeen Cram Duffy Friedrichsen Reding *Microsoft Office 2010*, Illustrated Brief , 2012,

Comments:

Current PC Lab with current course software, and Internet Connection

- This course requires special or additional library materials (list attached).
- This course requires special facilities:

Attached Files:

BASIC SKILLS ADVISORIES PAGE The skills listed are those needed for eligibility for English 125, 126, and Math 201. These skills are listed as the outcomes from English 252, 262, and Math 250. In the right hand column, list at least three major basic skills needed at the beginning of the target course and check off the corresponding basic skills listed at the left.

Check the appropriate spaces.

- Eligibility for Math 201 is advisory for the target course.
- Eligibility for English 126 is advisory for the target course.
- Eligibility for English 125 is advisory for the target course.

If the reviewers determine that an advisory or advisories in Basic Skills are all that are necessary for success in the target course, stop here, provide the required signatures, and forward this form to the department chair, the appropriate associate dean, and the curriculum committee.

REQUISITES

No requisites

JUSTIFICATION OF LIMITATION ON ENROLLMENT

Enrollment in courses or blocks of courses may be limited based on performance, honors, or other performance based criteria. Be mindful of the disproportionate impact the limitation will have on specific groups of students. It is important to determine if the limitation will disproportionately keep under-represented students from enrolling in the course or block of courses.

Describe the reasons for limiting the enrollment.

Course Designator: IS 12
Course Title(s): COMPUTER LITERACY
Rationale for Limiting Enrollment: 0