



COURSE OUTLINE

Outline Status: Outline Update (ECD 10142); 2009-2010

Section I: BASIC COURSE INFORMATION

1. **COLLEGE: L.A. SOUTHWEST COLLEGE**
2. **SUBJECT: COMPUTER SCIENCE-INFORMATION TECHNOLOGY**
3. **COURSE NUMBER: 602**
4. **COURSE TITLE: INTRODUCTION TO COMPUTER SCIENCE**
5. **UNITS: 3**
6. **CATALOG COURSE DESCRIPTION:**

This is a breadth-first course covering basic concepts and principles of computer science. Specifically, it covers the behavior of gates and circuits using Boolean expressions, truth tables, logic diagrams as well as the von Neumann machine. Students apply top-down methodology to develop algorithms for problem solving.

7. **CLASS SCHEDULE COURSE DESCRIPTION:**

This is a breadth-first course covering basic concepts and principles of computer science. Specifically, it covers the behavior of gates and circuits using Boolean expressions, truth tables, logic diagrams as well as the von Neumann machine. Students apply top-down methodology to develop algorithms for problem solving.

8. **INITIAL COLLEGE APPROVAL DATE: 1989**
9. **COURSE OUTLINE UPDATE APPROVAL DATE: 12/15/09**
10. **CLASS HOURS:**

	Standard Hrs Per Week (based On 18 weeks)	Total Hs per Term (hrs per week x 18)	Units
Lecture:	2	36	2
Lab/Activity (w / homework):	2	36	1
Lab/Activity (w /o homework):	0	0	0
Totals:	Lecture: 2	Lecture: 36	Lecture: 2
	Lab: 2	Lab: 36	Lab: 1
	Total: 4	Total: 72	Total: 3
Totals In Protocol:	Lecture: 3	Lecture: 54	
	Lab: 0	Lab: 0	
	Total: 3	Total: 54	Total: 3

11. PREREQUISITES, COREQUISITES, ADVISORIES ON RECOMMENDED PREPARATION, and LIMITATION ON ENROLLMENT:

Note: The LACCD's *Policy on Prerequisites, Corequisites and Advisories* requires that the curriculum committee take a separate action verifying that a course's prerequisite, corequisite or advisory is an 'appropriate and rational measure of a student's readiness to enter the course or program' and that the prerequisite, corequisite or advisory meets the level of scrutiny delineated in the policy.

PREREQUISITES: No

	Subject	Number	Course Title	Units	Validation Approval Date

COREQUISITES: No

	Subject	Number	Course Title	Units	Validation Approval Date

ADVISORIES: No

	Subject	Number	Course Title	Units	Validation Approval Date
	COMPUTER SCIENCE- INFORMATION TECHNOLOGY	630	MICROCOMPUTER APPLICATION SOFTWARE	3	2/23/10

12. OTHER LIMITATIONS ON ENROLLMENT: (See Title 5, Section 58106 and Board Rule 8603 for policy on allowable limitations. Other appropriate statutory or regulatory requirements may also apply):

None

Section II: COURSE CONTENT AND OBJECTIVES

1. COURSE CONTENT AND OBJECTIVES:

COURSE CONTENT AND SCOPE - Lecture: Outline the topics included in the lecture portion of the course (<i>Outline reflects course description, all topics covered in class</i>).	Hours per topic	COURSE OBJECTIVES - Lecture: Upon successful completion of this course, the student will be able to..(Use action verbs - see <u>Bloom's Taxonomy</u> for 'action verbs requiring cognitive outcomes.')
1.0 Introduction to the course, class format and syllabus, department lab procedures and policies 1.1 LASC Computer Use Policy 1.2 CSIT Computer Use Policy 1.3 Definitions, Etiquette and Netiquette 1.4 Computer Access Procedure	2.0	1. Distinguish between computing as a tool and computing as a discipline.
2.0 Binary Values and Number Systems 2.1 Numbers and Computing 2.2 Positional Notation	3.0	2. Describe positional notation.
3.0 Data Representation 3.1 Analog and Digital Data 3.2 Representing Numeric Data 3.3 Representing Text Data 3.4 Representing Audio Data 3.5 Representing Images and Graphics Data 3.6 Representing Video Data	3.0	3. Distinguish between analog and digital data.
4.0 Computer Gates and Circuits 4.1 Boolean Logic, Truth tables, Logic Diagrams 4.2 Computers and Electricity 4.3 Constructing Gates 4.4 Constructing Circuits 4.5 Circuits as Memory 4.6 Integrated Circuits 4.7 CPU Chips	5.0	4. Describe the behavior of a gate or circuit using Boolean expressions, truth tables, and logic diagrams.
5.0 Computing Components 5.1 Individual Computer Components 5.2 von Neumann Architecture 5.3 Non-von Neumann Architecture	3.0	5. List the computer components and their function in a von Neumann machine.
6.0 Problem Solving and Algorithm Design 6.1 Problem Solving 6.2 Algorithms 6.3 Pseudocode 6.4 Top-Down Design Methodology 6.5 Object-Oriented Methodology	4.0	6. Apply top-down methodology to develop an algorithm to solve a problem.
7.0 Low-Level Programming Languages 7.1 Computer Operations 7.2 Machine Language 7.3 Assembly Language	2.0	7.0 Distinguish between machine language and assembly language
8.0 High-Level Programming Languages 8.1 Translation Process 8.2 Programming Language Paradigms 8.3 Functionality of Imperative Languages 8.4 Functionality of Object-Oriented Language	3.0	8. Name, describe, and give examples of the three essential ingredients of an object-oriented language.

9.0 Abstract Data Types and Algorithms 9.1 ADTs & Their Implementation 9.2 Linear Lists 9.3 Sorting Algorithms 9.4 Searching Algorithms 9.5 Trees and Graphs	3.0	9. Define Abstract data type and discuss its role in algorithm development.
10.0 Operating Systems 10.1 Roles of an Operating System 10.2 Memory Management 10.3 Process Management 10.4 CPU Scheduling	4.0	10. Define memory management and process management.
11.0 File Systems and Directories 11.1 Text and Binary File Systems 11.2 Directory Trees 11.3 Disk Scheduling	4.0	11. Describe the purpose of files, file systems, and directories.
Total:		36
Total Hrs In Protocol:		36

1. (cont'd) LAB:

COURSE CONTENT AND SCOPE - Lab: Outline the topics included in the laboratory portion of the course (<i>Outline reflects course description, all topics covered in class</i>).	Hours per topic	COURSE OBJECTIVES - Lab: Upon successful completion of this course, the student will be able to..(<i>Use action verbs - see Bloom's Taxonomy for 'action verbs requiring cognitive outcomes.'</i>)
1.0 Introduction to the course, class format and syllabus, department lab procedures and policies 1.1 LASC Computer Use Policy 1.2 CSIT Computer Use Policy 1.3 Definitions, Etiquette and Netiquette 1.4 Computer Access Procedure	4.0	1. Draw a sketch or capture a screen shot of the Microsoft Backup window's tool bar.
2.0 Number Systems and Systems for Counting 2.1 Numbers and Computing 2.2 Positional Notation	3.0	2. Demonstrate your ability to count in a number system other than decimal.
3.0 Data Representation 3.1 Analog and Digital Data 3.2 Representing Numeric Data 3.3 Representing Text Data 3.4 Representing Audio Data 3.5 Representing Images and Graphics Data 3.6 Representing Video Data	4.0	3. Use the keyword compression algorithm to compress Obama's Inauguration speech and calculate the compression ratio.
4.0 Computer Gates and Circuits 4.1 Boolean Logic, Truth tables, Logic Diagrams 4.2 Computers and Electricity 4.3 Constructing Gates 4.4 Constructing Circuits 4.5 Circuits as Memory 4.6 Integrated Circuits 4.7 CPU Chips	3.0	4. Generate the truth table for the three main logic gates. 5. List the components of the von Neumann computer architecture.
5.0 Computing Components 5.1 Individual Computer Components	3.0	6. Develop an algorithm to bake a chocolate cake. 7. Use the Pep/7 assembly language to write the classic "Hello, World" program.

of their functions. SLO REVIEWED 11/16/09 GY	Rubric: 1 - (Excellent): At least six (6) of the components are correctly described. 2 - (Good): At least five (5) of the components are correctly described. 3 - (Needs to improve): Less than 5 of the components are correctly described. Desirable Outcome: More than 80% of the students achieve (Good) or better.			
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2. REQUIRED TEXTS:

Provide a representative list of textbooks and other required reading; include author, title and date of publication:

Computer Science Illuminated, 3rd Ed., Nell Dale & John Lewis, 2007

3. READING ASSIGNMENTS:

Provide a representative list of textbooks and other required reading; include author, title and date of publication:

Typical assignments might be: Using PC journals and PC newsletters, websites, manufacturer product literature, etc. 1) Write a report in Word that compares and contrasts the three major storage media technologies. 2) Develop an Excel table that lists characteristics of major CPU chips; each column of your table should be headed with the manufacturer and chip name.

4. WRITING ASSIGNMENTS:

Writing assignments, as required by Title 5, in this course may include, but are not limited to the following:

Typical assignments might be: 1) Wireless technology is increasingly being used for home entertainment systems, including stereos, television, and home theaters. Choose either television, stereo, or project systems and research the wireless options for the equipment. Write a two-page "How-To" article in Word describing how to set up a wireless system.

5. REPRESENTATIVE OUTSIDE ASSIGNMENTS (HOMEWORK):

Out of class assignments (Homework) may include, but are not limited to the following:

Typical assignments might be: 1) The speed of your Internet connection can affect the download time for media, such as photos and videos. Use Ping to find the speed of your Internet connection, then experiment with viewing five different short videos on news or entertainment Web sites. How does the performance of each video relate to the kind of Internet connection you have? Compile your findings into a well-organized PowerPoint presentation.

6. REPRESENTATIVE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:

Provide examples of assignments, as required by Title 5, that demonstrate critical thinking.

Typical assignments might be: 1) Type your name into the Google search engine. How much information can you currently find about yourself? How much privacy are you willing to release? Create a table in Excel with rows for the following: Name, address, e-address, SS#, CC#, phone#, height, weight, gender, race, hobbies, medical history, employer, salary, spouse name, children's names. Put the following columns across the top: Apply for a job, visiting the doctor, subscribing to a Web site, making an on-line purchase, opening a bank account, responding to an e-mail message, registering for classes. Think about two more situations and add them to this list. Place a check mark (?) in the cell if you would be willing to provide each type of information. Put an X in the cell if you believe the information is legitimately required. Use a question mark when you're not sure if the information is required.

7. METHODS OF EVALUATION:

Title 5, section 55002 requires grades to be 'based on demonstrated proficiency in subject matter and the ability to demonstrate that proficiency, at least in part, by means of essays, or, in courses where the curriculum committee deems them to be appropriate, by problem solving exercises or skills demonstrations by students.' Methods of evaluation may include, but are not limited to the following (please note that evaluation should measure the outcomes detailed 'Course Objectives' at the beginning of Section II):

Project, Written Reports, Problem-solving Exercises, Computer Interactive Lab Assignments, Oral Presentation, Class Participation; Quizzes, Unit Tests, Midterm Exam, and/or Final Exam.

8. METHODS OF INSTRUCTION:

Please Check All That Apply

- Lecture**
- Discussion**
- Laboratory**
- Activity**
- Field Experience**
- Independent Study**
- Other (Please Explain)**

One-on-one conference (in person or on-line) with the instructor; audio-visual examples using Smart Board technology and guest speakers.

9. SUPPLIES:

List the supplies the student must provide.

A USB storage device, capable of holding at least 2GB of data. An e-mail address Access to an off campus computer A blank CD to store lab tutorials

10. COMPUTER COMPETENCY:

If applicable, explain how computer competency is included in the course.

The entire course deals with literacy of computer concepts. Assignments require accessing information both traditionally and on-line.

11. INFORMATION COMPETENCY:

If applicable, explain how information competency is included in the course.

12. DIVERSITY:

If applicable, explain how diversity (e.g., cultural, gender, etc.) is included in the course.

The very nature of technology crosses all culture and demographic boundaries.

13. SCANS COMPETENCIES:

(required for all courses with vocational TOP Codes; recommended for all courses)

SCANS (Secretary's Commission on Necessary Skills) are skills the Department of Labor identified, in consultation with business and industry leaders, which reflect the skills necessary for success in the workplace. Check the appropriate boxes to indicate the areas where students will develop the following skills (please note that all SCANS competencies do not apply to all courses):

RESOURCES

- Managing Time:** Selecting relevant goal-related activities, ranking them in order of importance, allocating time to activities, and understanding, preparing and following schedules.
- Managing Money:** Using or preparing budgets, including making cost and revenue forecasts; keeping detailed records to track budget performance, and making appropriate adjustments.
- Managing Material and Facility Resources:** Acquiring, storing, allocating, and distributing materials, supplies, parts, equipment, space or final products in order to make the best use of them.

INTERPERSONAL

- Participating as Member of a Team:** Working cooperatively with others and contributing to group's efforts with ideas, suggestions and effort.
- Teaching Others New Skills:** Helping others learn needed knowledge and skills.

Exercising Leadership: Communicating thoughts, feelings, and ideas to justify a position, encouraging, persuading, convincing or otherwise motivating an individual or group, including responsibly challenging existing procedures, policies or authority.

Negotiating: Working toward agreement that may involve exchanging specific resources or resolving divergent interests.

Working with Cultural Diversity: Working well with men and women and with people from a variety of ethnic, social, or educational backgrounds.

INFORMATION

Acquiring and Evaluating Information: Identifying a need for data, obtaining the data from existing sources or creating them, and evaluating their relevance and accuracy.

Organizing and Maintaining Information: Organizing, processing and maintaining written or computerized records and other forms of information in a systematic fashion.

Interpreting and Communicating Information: Selecting and analyzing information and communicating the results of others, using oral, written, graphic, pictorial, or multimedia methods.

Using Computers to Process Information: Employing computers to acquire, organize, analyze and communicate information.

SYSTEMS

Understanding Systems: Knowing how social, organizational and technological systems work and operating effectively with them.

Monitoring and Correcting Performance: Distinguishing trends, predicting impacts of actions on system operations, diagnosing deviations in the functioning of a system/organization, and taking necessary steps to correct performance.

Improving or Designs Systems: Making suggestions to modify existing systems in order to improve the quality of products or services and developing new or alternative systems.

TECHNOLOGY

Selecting Technology: Judging which sets of procedures, tools or machines, including computers and their programs, will produce the desired results.

Applying Technology to Tasks: Understanding overall intent and proper procedures for setting up and operating machines, including computers and their reprogramming systems.

Maintaining and Troubleshooting Equipment: Preventing, identifying, or solving problems with equipment, including computers and other technologies.

Section III: RELATIONSHIP TO COLLEGE PROGRAMS

1. THIS COURSE WILL BE AN APPROVED REQUIREMENT FOR AN APPROVED ASSOCIATE DEGREE OR CERTIFICATE PROGRAM: Yes

a. If yes, the course will be a requirement portion of the 'approved program' listed on the State Chancellor's Inventory of Approved Programs (approved programs can be found on the State Chancellor's Office website at <https://misweb.cccco.edu/webproginv/prod/invmenu.htm>)

Science: Information Technology AS - Program: 070710 State ID: 02866

2. GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE STATUS:

a. Area Requested: None

Approval Date:

If applicable, provide an explanation of how the course meets the General Education parameters for one of the five general education areas - Natural Sciences, Social and Behavioral Sciences, Humanities, Language and Rationality, Health and Physical Education -- contained in Board Rule 6201.14 -General Education Requirements. http://marlin.laccd.edu/district/BoardRules_AdmRegs/boardrules.htm

b. Area Requested: None

Approval Date:

If applicable, provide an explanation of how the course meets the General Education parameters for one of the five general education areas - Natural Sciences, Social and Behavioral Sciences, Humanities, Language and Rationality, Health and Physical Education -- contained in Board Rule 6201.14 -General Education Requirements. http://marlin.laccd.edu/district/BoardRules_AdmRegs/boardrules.htm

Section IV: ARTICULATION INFORMATION

(Complete in consultation with College Articulation Officer)

1. TRANSFER STATUS:

a. Transferable to the University of California: Yes b. UC Approval Date:	c. Transferable to the California State University: Yes d. College Approval Date: 1989
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2. GENERAL EDUCATION FOR TRANSFER:

<p><i>IGETC Certification</i></p> <p>a. Area Requested: b. Date Requested: c. IGETC Approval Date:</p> <p>If applicable, provide an explanation of how the course meets the appropriate General Education parameters, as defined in IGETC Certification Guidelines.</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 10px;"></div>	<p><i>CSU Certification</i></p> <p>a. Area Requested: b. Date Requested: c. CSU Approval Date:</p> <p>If applicable, provide an explanation of how the course meets the appropriate General Education parameters, as defined in CSU Certification Guidelines.</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 10px;"></div>
<p>a. 2nd Area Requested: b. Date Requested: c. IGETC Approval Date:</p> <p>If applicable, provide an explanation of how the course meets the appropriate General Education parameters, as defined in IGETC Certification Guidelines.</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 10px;"></div>	<p>a. 2nd Area Requested: b. Date Requested: c. CSU Approval Date:</p> <p>If applicable, provide an explanation of how the course meets the appropriate General Education parameters, as defined in CSU Certification Guidelines.</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 10px;"></div>

3. MAJOR REQUIREMENT FOR TRANSFER:

Will this course be articulated to meet lower division major requirements?: No

List college/university and the majors:

CAN NUMBER: **CAN SEQUENCE #:**

CAN Approval -

Date requested: Date approved:

Section V: SUPPLEMENTAL COURSE INFORMATION

1. **DEPT/DIVISION NAME:** Business
2. **DEPT/DIVISION CODE:** 03
3. **SUBJECT CODE:** 213
4. **SUBJECT ABBREVIATION:** CO SCI
5. **RECOMMENDED MINIMUM QUALIFICATION AREA:**
6. **ABBREVIATION FOR TRANSCRIPTS:** INTRO COMPUTER SCI
7. **DEGREE CREDIT:**

Indicate whether the course meet the 'standards for approval' for degree credit course set forth in Title 5, section 55002(a)(2), which requires the course to have a degree of intensity, difficulty, and vocabulary that the curriculum committee has determined to be at the college level: **Degree Applicable**

8. **GRADING METHOD:** LETTER GRADE
9. **REPETITIONS:** # of times repeated for credit: **0**

If this course is repeatable, explain how repetition of this course meets Title 5, section 55041(c)(2)(B):

10. **PRIOR TO TRANSFERABLE LEVEL:**

This course attribute applies to **English, Writing, ESL, reading and mathematics** courses ONLY. If applicable, indicate how many levels below the transferable level this course should be placed: **Not applicable**

11. **CREDIT BASIC SKILLS:**

Title 5, section 55000(j) defines basic skills as 'courses in reading, writing, computation, and English as a Second Language, which are designated as non-degree credit courses pursuant to Title 5, section 55002(b).': **No**

12. **CROSS REFERENCE:**

Is this course listed as equivalent in content to existing College/District courses in another discipline?: **No**

If Yes, list courses (documentation of cross-discipline agreement must be provided):

13. **COURSE SPECIFICALLY DESIGNED FOR STUDENTS W/ DISABILITIES:**

Title 5, section 56029 allows a course to be repeatable when continuing success of the students with disabilities is dependent on additional repetitions of a specific class. Is this course designated as an 'approved special class' for students with disabilities?: **No**

If yes, provide an explanation of how this course meets the requirements of Title 5, section 56029:

14. COOPERATIVE EDUCATION STATUS:

Title 5, section 55252 allows for two types of Cooperative Education: 1) General Work Experience Education -- i.e., supervised employment, which is intended to assist students in acquiring desirable work habits, attitudes and career awareness, which need not be related to the students' educational goals; or 2) Occupational Work Experience Education - - i.e., supervised employment, extending classroom based occupational learning at an on-the-job learning station, which is related to the students' educational or occupational goal. Is this course part of the college's approved cooperative work experience education program?: **No**

15. COURSE CLASSIFICATION: Occupational

Note: A course's Classification, TOP Code and SAM code must be aligned, e.g., Courses with an 'Occupational' Course Classification must have an 'Occupational' TOP Code and a SAM Code of A, B, C, or D; courses that do not have an 'Occupational' Course Classification cannot have an Occupational TOP Code and must have an 'E' SAM Code. Courses coded as 'basic skills' in #11 should be coded 'Adult and Secondary Basic Skills.'

16. TOP CODE - (6 digits XXXX.XX): **0701.00**

Course content should match discipline description in Taxonomy of Programs found at <http://ecd.laccd.edu/TaxonomyOfPrograms.doccurriculum.htm>

17. SAM CODE (Student Accountability Model): **C**

18. FUNDING AGENCY CODE:

19. STATE COURSE ID:

Section VI: APPROVAL STATUS

1. APPROVAL STATUS:

		Approval Date Of	Board Date	Requested Effective Semester	Approved Effective Semester
a.	<input type="checkbox"/> New Course	College:	Board:	Effective Semester:	Effective Semester:
b.	<input type="checkbox"/> Addition of Existing District Course	College:	Board:	Effective Semester:	Effective Semester:
c.	<input checked="" type="checkbox"/> Course Change*	College:		Effective Semester: Winter 2010	Effective Semester:
d.	<input checked="" type="checkbox"/> Outline Update	College: 12/15/09			Effective Semester:
e.	<input type="checkbox"/> New Course	College:		Effective Semester:	Effective Semester:
f.	<input type="checkbox"/> New Course	College:	Board:	Effective Semester:	Effective Semester:

* Changes to a course require the completion of a 'Course Change Request' form and approval by the college's Curriculum Committee. In some cases districtwide approval is also required; see, Administrative Regulation E-65, section 3(c) for details.

Section VII: APPROVAL INFORMATION FOR NEW OR ADDED COURSES

(complete in consultation with Department Chair and the appropriate Academic Administrator)

1. **ORIGINATOR: Hicks, James E.**

2. **DEPARTMENT: 03**

3. **IF THIS IS A NEW COURSE, INDICATE HOW THE COLLEGE PLANS TO MEET THE EXPENSE OF THIS COURSE:**

By additional funds. Describe:

By deleting courses from the college catalog and course database. List specific courses to be deleted:

By deleting sections of existing course. List courses and number of sections to be deleted:

FIRST YEAR: SECOND YEAR: THIRD YEAR:

By rotating sections of existing courses. List courses and number of sections to be rotated, as well as the semesters in which they will be offered:

4. **IMPACT**

IMPACT -- Will this course directly impact other course offerings and/or associate degree or certificate programs on campus? No (If yes, briefly explain how)

5. **METHOD OF SUPPORT**

-- Indicate how the college plans to support the proposed course:

A. Additional staff -- List additional staff needed:

B. Classroom -- List classroom type needed:

C. Equipment -- List new equipment needed and indicate funding source for any new equipment:

D. Supplies- List supplies and indicate dollar value:

E. Library/Learning Resources- The course initiator shall consult with the College Librarian and review the college library, book, periodical, and electronic resource collections relevant to this course. List additional titles and resources to be considered for purchase as funding permits:

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CERTIFICATION AND RECOMMENDATION

- This course meets Title 5 requirements for Associate Degree applicable college credit towards an Associate Degree.

- This course meets Title 5 requirements but does not satisfy the requirements for an Associate Degree applicable course.

We certify that the information and answers above properly represent this course.

Originator	Date
Department/Cluster Chairperson	Date
Articulation Officer	Date
Librarian	Date
Dean (if applicable)	Date
Curriculum Committee Chairperson	Date
Academic Senate President	Date
Vice President, Academic Affairs	Date

Section VIII: ADDENDA

(Uploaded Documents)

CONTENT REVIEW FOR PREREQUISITE VALIDATION**Target Course & Number, Title: CO SCI 602**

(Course to which pre/corequisite/advisory applies)

Check

Applicable

Box

 Prerequisite: Corequisite: Advisory:**Course & Number, Title: CO SCI 630****A. Target Course Entry Skills: Course & Number, Title: CO SCI 602**

(For prerequisites/corequisites, list specific skills and/or knowledge necessary for students to succeed in the target class. For advisories, list skills/knowledge which will enrich or deepen the student's knowledge obtained from the course but without which the student may still succeed in the course. Attach additional sheet if necessary. NUMBER EACH SKILL.)

1. Identify operating systems used on today's personal computers, PDAs, and servers; describe their strengths and weaknesses.
2. Create valid names for files and folders, plus demonstrate that you can construct and trace file paths.
3. List security measures for wired and wireless networks.
4. Draw a conceptual diagram illustrating the connection between the Internet backbone, NAPs, NSPs, routers, and ISPs.
5. Describe the role that HTML, XHTML, HTTP, URLs, browsers, and Web servers play in bringing Web pages to your desktop.
6. Define the differences between digital video and 3-D animation.

B. Exit Skills Provided By Prerequisite/Corequisite/Advisory Course or Assessment:**Course & Number, Title: CO SCI 630**

(List specific skills and/or knowledge that are the outcome of the prerequisite/corequisite/advisory course or assessment. For courses already in the curriculum, these should be present in the course objectives in the course outline. Attach additional sheet if necessary. NUMBER EACH SKILL.)

1. Identify operating systems used on today's personal computers, PDAs, and servers; describe their strengths and weaknesses.
2. Create valid names for files and folders, plus demonstrate that you can construct and trace file paths.
3. List security measures for wired and wireless networks.
4. Draw a conceptual diagram illustrating the connection between the Internet backbone, NAPs, NSPs, routers, and ISPs.
5. Describe the role that HTML, XHTML, HTTP, URLs, browsers, and Web servers play in bringing Web pages to your desktop.
6. Define the differences between digital video and 3-D animation.
7. Describe how information systems help organizations fulfill their missions, deal with threats, and take advantage of opportunities.
8. Define basic database terminology, such as fields, records, files, hierarchical, relational, network databases, cardinality, & SQL queries.
9. Describe the major concepts of object-oriented programming, such as objects, classes, inheritance, messages, methods, polymorphism, and encapsulation.

CONTENT REVIEW SKILLS MATRIX FOR PREREQUISITE VALIDATION*

*Validation requires at least one match of each entry skill with any exit skill(s).

COURSE & NUMBER: CO SCI 602
Course Title: Introduction to Computer Science

Entering Skills of Target Course

COURSE & NUMBER: CO SCI 630
COURSE TITLE: MICROCOMPUTER APPLICATION SOFTWARE

Exit Skills of Advisory Course

	1	2	3	4	5	6	7	8	9
1	X								
2		X							
3			X						
4				X					
5					X				
6						X			
7									
8									
9									

Was validation achieved? X YES or NO

Comments:

(Include justification for assessments, health and safety, or non-course prerequisites)

PARTICIPANTS IN CONTENT REVIEW:

(Signatories should include instructors for both exit and entering skills courses.)

Name: _____ Title: _____ Initial: _____ Date: _____

Name: _____ Title: _____ Initial: _____ Date: _____

Name: _____ Title: _____ Initial: _____ Date: _____

CERTIFIED BY:

 Initiator Date

 Department Chairperson Date

 Curriculum Chairperson Date