

CATALOG INFORMATION

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Dept & Nbr: CSC 221 Title: PROGRAM & ALGORITHMS I
Full Title: Programming and Algorithms I

Units	Course Hours	Per Week	Nbr of Weeks	Course Hours	Total
Max: 3.0	Lecture	2.5	17	Lecture	42.5
Min: 3.0	Lab	1.5		Lab	25.5
	Contact DHR	0.0		Contact DHR	0.0
	Contact Total	4.0		Contact Total	68.0
	Non-contact DHR	0.0		Non-contact DHR	0.0

Title 5 Category: 01 AA Degree Applic
Grading: GC Credit course for grade or CR/NC
Repeatability: 00 No repeatability allowed or defined
Also listed as:

CATALOG DESCRIPTION:

An introduction to theory and practice of computer science with emphasis in software design and programming. Topics include: the software life cycle, algorithms, object-oriented and procedural programming concepts. Learn to design, implement, and test programs using an object-oriented language.

PREREQUISITES:

Completion of CSC 220.

RECOMMENDED PREPARATION:

Completion of CSC 201.

LIMITS ON ENROLLMENT:

SCHEDULE OF CLASSES INFORMATION:

Prerequisites: Completion of CSC 220.

Recommended: Completion of CSC 201.

An introduction to theory and practice of computer science with emphases in software design and programming. Topics include: software life cycle; algorithms; object-oriented and procedural programming concepts. Learn to design, implement, and test programs using an object-oriented language.

(Grade or CR/NC)

Transfer Credit: CSU; UC.

ARTICULATION and CERTIFICATE INFORMATION

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ASSOCIATE DEGREE: Effective: FALL 2004 Inactive:
Area: D2 COMMUNICATIONS & ANALYTICAL THINKING

CSU GE: Effective: Inactive:
Transfer area:

- a. Creating
 - b. Enhancing
 - c. Using
10. Modularity, encapsulation, and information hiding
11. Methods, properties, and interfaces

ASSIGNMENTS:

READING ASSIGNMENTS:

Assigned readings including chapters from the text and may include articles from computer magazines and/or journals, software tutorials, and related web-based materials.

WRITING ASSIGNMENTS:

Write, debug, test, and document several computer applications or applets using an object-oriented language and development environment.

OUTSIDE ASSIGNMENTS:

1. Reading assigned chapters or other materials
2. Completion of assigned exercises and problem sets
3. The development, implementation, and troubleshooting of algorithms and computer programs that provide solutions to programming problems

METHOD OF INSTRUCTION:

METHODS OF EVALUATION:

Computational or non-computational problem-solving demonstrations including: development and refinement of algorithms for creating computer programs; development and troubleshooting of programs using an object-oriented language such as C++ or Java. Examinations including quizzes, midterm, and final. Students may be required to create a portfolio of their work and periodically submit it for evaluation.

BASIS FOR GRADING:

The assignment of a grade is based on the level of achievement of the outcomes and objectives of the course outline and is reflected in quantifiable terms in the course syllabus.

REPRESENTATIVE TEXTBOOKS:

Java: First Contact, an Introduction to the Java Programming Language and Object-Oriented Programming; R.Garside, J.Mariani; Course Technology, 1998
C++ From the Ground Up, Schildt, Herbert; 2nd Ed., Osborne McGraw Hill
1998

RATIONALE

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RESOURCES REQUIRED

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MISCELLANEOUS

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Advisory generate desc:	Y	YES
Area department:	CSC	COMPUTER SCIENCE
Audit flag:	N	NOT AUDITABLE
Basic skills:	X	NOT BASIC SKILLS
Classification:	I	Career-Technical Education
Cost level:	00	VALUE NOT FOUND
Disciplines:		COMPUTER SCIENCE
Division:	00	VALUE NOT FOUND
Faculty service areas:		COMPUTER SCIENCE
Fee:	\$0.00	
In-service:	X	NOT IN-SERVICE
Level below transfer:	X	NOT APPLICABLE
Matric-requiring:	X	Exempt from assessment
Maximum class size:	0	
Maximum wait list:	0	
Method of instruction:	03	LECTURE/LABORATORY
	99	OTHER/UNSPECIFIED METHOD OF INSTRUCTION
Non-credit category:	X	NOT APPLICABLE, CREDIT COURSE
Open entry/exit:	N	Not open entry/exit
Pacs activity:	1701	MATHEMATICS GENERAL
Pacs program project:	0000	
Preq/coreq generate desc:	Y	YES
Preq/coreq provisional:	N	NO
Preq/coreq reg check:	Y	PREREQUISITE RULES EXIST
Repeat group id:		
Requires instructor sig:	N	INSTRUCTOR'S SIGNATURE NOT REQUIRED
SAM classification:	B	Advanced occupational
Selected/special topic:	N	NOT A SELECTED TOPIC COURSE
Special class:	X	NOT A SPECIAL COURSE
TOP code:	0707.10	COMPUTER PROGRAMMING
Workload:	0.0000	