

CATALOG INFORMATION

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Dept & Nbr: MTH 230 Title: CALCULUS BUS/ECONOMICS

Full Title: Calculus for Business and Economics

Units	Course Hours	Per Week	Nbr of Weeks	Course Hours	Total
Max: 3.0	Lecture	3.0	17	Lecture	51.0
Min: 3.0	Lab	0.0		Lab	0.0
	Contact DHR	0.0		Contact DHR	0.0
	Contact Total	3.0		Contact Total	51.0
	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:

Concepts of function and limit; applied calculus emphasizing techniques of differentiation and integration for business applications; partial derivatives.

PREREQUISITES:

MTH 56 or qualification for MTH 230 through the assessment process.

COREQUISITES:

RECOMMENDED PREPARATION:

No advisories.

LIMITS ON ENROLLMENT:

SCHEDULE OF CLASSES INFORMATION:

Prerequisites: MTH 56 or qualification for MTH 230 through the assessment process.  
Topics of calculus including differentiation, integration, graphs, functions and limits. Emphasis on applications in business and economics. (CAN MATH 34) (Grade or CR/NC)  
Transfer Credit: CSU; UC. (CAN MATH 34)

ARTICULATION and CERTIFICATE INFORMATION

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ASSOCIATE DEGREE: Effective: FALL 1981 Inactive:  
Area: D2 COMMUNICATIONS & ANALYTICAL THINKING  
CSU GE: Effective: FALL 1981 Inactive:  
Transfer area: B4 MATHEMATICS/QUANTITATIVE REASONING

IGETC: Effective: FALL 1981 Inactive:  
 Transfer area: 2A MATHEMATICS

CSU TRANSFER: TRANSFERABLE Effective: FALL 1981 Inactive:

UC TRANSFER: TRANSFERABLE Effective: FALL 1981 Inactive:

CAN:  
 MATH 34 Grp Nbr: 01 Effective: SPRING 2001 Inactive:

CERTIFICATE APPLICABLE: N NOT CERTIFICATE/MAJOR APPLICABLE

#### APPROVAL AND DATES

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Version 01 Submitted by: AHDERS/WHITE Date: 06/01/1981  
 Department approved: Date:  
 Curriculum approved: 06/01/1981 Version approved: 06/01/1981  
 Prerequisites approved: 06/01/1981 Last reviewed: 06/01/1981  
 Term effective: FALL 1981 Last taught: SPRING 2008 Inactive:

#### COURSE CONTENT

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##### OUTCOME AND OBJECTIVES:

1. Discuss the topics listed in the course description, comparing and contrasting major results.
2. Understand the significance of this mathematics in the solution of important problems.
3. Understand the types of applications for this mathematics in business and economics.
4. Analyze problems and select suitable mathematical techniques to solve them.
5. Demonstrate competence in the skills detailed in Course Content.

##### TOPICS AND SCOPE:

1. Algebra review and extension  
 Polynomial, rational, exponential and logarithmic functions with applications: graphing techniques
2. Calculus, Differential and Integral  
 Limit of a function, derivatives including exponential and logarithmic functions, techniques of differentiation including product, quotient and chain rules, applications of the derivatives including maxima and minima, definite integrals. The fundamental Theorem of Calculus, tables of integrals, applications of integration, multivariable functions and limits, partial differentiation, relative max/min in two variables, LaGrange multipliers

##### ASSIGNMENTS:

###### READING ASSIGNMENTS:

Outside readings from required text, and assigned problems.

###### WRITING ASSIGNMENTS:

Assigned problems and related problem solving analysis.

###### OUTSIDE ASSIGNMENTS:

1. Reading assigned lessons in required text.
2. Written solutions to assigned problems.

3. Information gathering or other projects as assigned.

ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:

1. Interactive participation in class discussion and class activities.
2. Problem solving during class and homework assignments.
3. Problem solving on examinations.

METHOD OF INSTRUCTION:

Interactive lecture, demonstration, class activities, technically supported teaching aids.

METHODS OF EVALUATION:

Tests, quizzes, homework problems and final exam.

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:

1. Brief Calculus w/Applications, Larson/Hostetler/Edwards, 4th Edition/hardbound, D.C. Heath & Co.
2. Student Solution Guide, Dianna L. Zook, D.C. Heath & Co.
3. Study Guide and Workbook, Ronnie Khuri, D.C. Heath & Co.

RATIONALE

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RESOURCES REQUIRED

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MISCELLANEOUS

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Advisory generate desc:	N	NO
Area department:	MTH	MATHEMATICS
Audit flag:	Y	AUDITABLE
Basic skills:	X	NOT BASIC SKILLS
Classification:	A	Liberal Arts and Sciences
Cost level:	01	
Disciplines:		MATHEMATICS
Division:	02	MERIDITH RANDALL
Faculty service areas:		MATHEMATICS
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:	02	LECTURE
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:	N	NO

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: E Non-occupational  
Selected/special topic: N NOT A SELECTED TOPIC COURSE  
Special class: X NOT A SPECIAL COURSE  
TOP code: 1701.00 MATHEMATICS ,GENERAL  
Workload: 0.0000