

Beginning Mathcad

Course Design

2001-2002

Course Information

Organization:	Eastern Arizona College
Division:	Mathematics
Course Number:	CMP 110AG
Title:	Beginning Mathcad
Credits:	0.5
Developed by:	William S. Weber
Lecture/Lab Ratio:	0.5 lecture/0 lab
Transfer Status:	Pending evaluation
Extended Registration	
Class:	Yes
CIP Code:	11.0101
Assessment Mode:	Pre/Post Test 10 questions/10 points
Semester Taught:	Upon Request Only
Gen. Ed. Area:	None
Separate Lab:	No
Awareness Course:	No
Intensive Writing	
Course:	No
Prerequisites:	1. MAT 154 or higher with a grade of "C" or higher, or concurrent enrollment in MAT 154, or appropriate EAC Placement Score of 81 or higher or equivalent.
Description:	Students will become familiar with beginning level functions of Mathcad, a calculation software package. Identical to MAT 110AG.
Textbooks:	None.
Supplies:	None

Competencies and Performance Standards

1. Become familiar with the Mathcad workspace			
<i>Domain--Cognitive</i>	<i>Level--Application</i>	<i>Importance--Important</i>	<i>Difficulty--Low</i>
Criteria-- Criteria - Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can identify, select, size, move, cut, copy, and paste the various types of worksheet regions. • learner can add and remove space from a worksheet. • learner can find, open, close, and reposition Mathcad toolbars. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • during class activities • on the Pre/Post test • on the class project 	Learning Objectives: <ol style="list-style-type: none"> Identify, select, size, move, cut, copy, and paste the various types of worksheet regions. Add and remove space from a worksheet. Find, open, close, and reposition Mathcad toolbars. 	
2. Utilize Mathcad as a wordprocessor			
<i>Domain--Cognitive</i>	<i>Level--Application</i>	<i>Importance--Important</i>	<i>Difficulty--Medium</i>
Criteria-- Criteria - Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can shape, size, format, and align text regions. • learner can use both toolbar, and keyboard options. • learner can insert a math region into a text region. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • during class activities • on the Pre/Post test • on the class project 	Learning Objectives: <ol style="list-style-type: none"> Shape, size, format, and align text regions. Use both toolbar, and keyboard options. Insert a math region into a text region. 	
3. Utilize Mathcad to do math			
<i>Domain--Cognitive</i>	<i>Level--Application</i>	<i>Importance--Important</i>	<i>Difficulty--High</i>
Criteria-- Criteria - Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can type a variety of mathematical expressions into a Mathcad worksheet using both toolbars and keyboard options. • learner understands the difference between Mathcad's various equals signs. • learner can use Mathcad's equation editor to modify equations. • learner can use Mathcad's numeric and symbolic engines to solve problems. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • during class activities • on the Pre/Post test • on the class project 	Learning Objectives: <ol style="list-style-type: none"> Type a variety of mathematical expressions into a Mathcad worksheet using both toolbars and keyboard options. Understand the difference between Mathcad's various equals signs. Use Mathcad's equation editor to modify equations. Use Mathcad's numeric and symbolic engines to solve problems. 	

Types of Instruction

- Lecture
- Computer Lab

Grading Policy

Evaluation Methods: Each student must specify either Pass/Fail or Traditional grading.

Grading Scale:

Grade	Requirement
A	90%-100%
B	80%-89%
C	70%-79%
D	60%-69%
F	Below 60%
P/F	P above 70%, F below 70%

Learning Plans

Learning Plan 1-- Beginning Mathcad

Overview:

Become familiar with the Mathcad workspace

Utilize Mathcad as a wordprocessor

Utilize Mathcad to do math

Learning Activities:

- _____1. listen to a lecture and take notes
- _____2. participate in a discussion
- _____3. participate in class activities
- _____4. demonstrate a procedure for others
- _____5. work on assigned project individually

Performance

Assessment Activities:

- _____1. Mathcad project
- _____2. Pre/Post test