

## CORE CURRICULUM COMPONENT APPLICATION

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<b>CORE COMPONENT AREA</b>	Mathematics
<b>COURSE TYPE</b>	Existing Core
<b>DEPARTMENT</b>	Mathematics and Engineering
<b>COURSE RUBRIC &amp; NUMBER</b>	MATH 1324
<b>COURSE NAME</b>	Mathematics for Business and Social Sciences I
<b>CATALOG DESCRIPTION</b>	Topics from college algebra (linear equations, quadratic equations, functions and graphs, inequalities), mathematics of finance (simple and compound interest, annuities), linear programming, matrices, systems of linear equations, applications to management, economics, and business
<b>NUMBER OF SECTIONS OFFERED/FALL</b>	3
<b>NUMBER OF SECTIONS OFFERED/SPRING</b>	3
<b>EXTIMATED ANNUAL ENROLLMENT</b>	180
<b>COURSE LEVEL</b>	Freshman
<b>CONTACT PERSON (dept. representative)</b>	Dr. Krista Cohlmiia
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<b>DEPARTMENT APPROVAL STATUS</b>	<b>Approved</b> - Date <b>4/10/2013</b>
<b>CORE COMMITTEE COMMENTS</b> <small>(REQUEST FOR ADDITIONAL INFORMATION)</small>	
<b>CORE COMMITTEE APPROVAL STATUS</b>	Select One - Date Click here to enter a date.

Best practices and accreditation guidelines generally place the faculty in a position of responsibility for curricular decisions.

## CORE CURRICULUM COMPONENT APPLICATION

*Indicate below how each learning objective will be supported, what strategies or activities will be used to introduce each objective and how student learning will be assessed.*

**\*NOTE: Component Area Option –**

- A. A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundational component areas
- B. As an option for up to 3 semester credit hours of the Component Area Option, an institution may select course(s) that:
  - i. Meet(s) the definition specified for one or more of the foundational component areas; and
  - ii. Include(s) a minimum of three Core Objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the institution's choice.

#	THECB CORE OBJECTIVE "ICO"	PROGRAM GOALS/OUTCOMES	COURSE LEARNING OUTCOMES	KEY IDENTIFIERS	LEARNING EXPERIENCE	ASSESSMENT
1	<p><b>Critical Thinking Skills</b> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</p> <p><i>Must be addressed in all core curriculum courses</i></p>		Upon successful completion of this course, the student will be able to apply logical reasoning to solve mathematical problems.	The student successfully solves stated problems involving linear programming and finance.	Students will participate in group discussions, complete homework or quizzes, and take exams. The comprehensive departmental course final exam will be submitted for assessment.	This core objective will be assessed by an interdepartmental assessment committee using the Critical Thinking rubric.
2	<p><b>Communication Skills</b> - to include effective development, interpretation and expression of ideas through written, oral and</p>		Upon successful completion of this course, the student will be able to develop and interpret solutions to	The student is able to write logical conclusions and interpretations based on his/her calculations.	Students will participate in group discussions, complete homework or quizzes, and take	This core objective will be assessed by an interdepartmental assessment committee using the

	<p>visual communication.</p> <p><i>Must be addressed in all core curriculum courses</i></p>		<p>mathematical problems centered on business topics.</p>		<p>exams. The comprehensive departmental course final exam will be submitted for assessment.</p>	<p>Communication rubric.</p>
3	<p><b>Empirical and Quantitative Skills</b> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions</p> <p><i>Must be addressed in all Mathematic, Life and Physical Sciences, AND Social &amp; Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>		<p>Upon successful completion of this course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate and apply knowledge of functions.</li> <li>2. Apply techniques for graphing inequalities.</li> <li>3. Apply matrices to business applications.</li> <li>4. Demonstrate and apply knowledge of financial formulas.</li> </ol>	<ol style="list-style-type: none"> <li>1. The student is able to solve problems involving revenue, cost, and profit functions, and find the break-even point.</li> <li>2. The student is able to wrtie the linear program corresponding to a stated problem and solve linear programs by graphing.</li> <li>3. The student is able to solve a system of linear equations using Guass-Jordan elimination and solve linear programs using the Simplex Method</li> <li>4. The student is able to solve stated</li> </ol>	<p>Students will participate in group discussions, complete homework or quizzes, and take exams. The comprehensive departmental course final exam will be submitted for assessment.</p>	<p>This core objective will be assessed by an interdepartmental assessment committee using the Empirical and Quantitative Skills rubric.</p>

				problems related to finance by identifying and applying formulas involving simple interest, compound interest, and annuities.		
4	<p><b>Teamwork</b> - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.</p> <p><i>Must be addressed in all Communication, Life &amp; Physical Sciences, and Creative Arts component area core curriculum courses. Optional for all other component areas.</i></p>					
5	<p><b>Social Responsibility:</b> to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities</p> <p><i>Must be addressed in all Language, Philosophy &amp; Culture, Creative Arts, American History and</i></p>					

	<i>Government/Political Science, and Social &amp; Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i>					
6	<p><b>Personal Responsibility</b> - to include the ability to connect choices, actions and consequences to ethical decision-making.</p> <p><i>Must be addressed in all Communication, Language, Philosophy &amp; Culture, American History and Government/Political Science component area core curriculum courses. Optional for all other component areas.</i></p>					
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8						
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10						



## Critical Thinking Skills

To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

***Must be addressed in all core courses***

## Communication Skills

To include effective development, interpretation and expression of ideas through written, oral and visual communication.

***Must be addressed in all core courses***

## Empirical and Quantitative Skills

To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

***Must be addressed in all core courses that satisfy the following requirements:***

- Mathematics
- Life and Physical Sciences
- Social and Behavioral Sciences
- Some Component Area Options

## Teamwork

To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

***Must be addressed in all core courses that satisfy the following requirements:***

- Communication
- Life and Physical Sciences
- Creative Arts
- Some Component Area Options

## Social Responsibility

To include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national and global communities.

***Must be addressed in all core courses that satisfy the following requirements:***

- Language, Philosophy and Culture
- Creative Arts
- American History
- Government/Political Science
- Social and Behavioral Sciences
- Some Component Area Options

## Personal Responsibility

To include the ability to connect choices, actions and consequences to ethical decision-making.

***Must be addressed in all core courses that satisfy the following requirements:***

- Communication
- Language, Philosophy and Culture
- American History
- Government/Political Science
- Some Component Area Options