

CORE CURRICULUM COMPONENT APPLICATION

CORE COMPONENT AREA	Mathematics
COURSE TYPE	Existing Core
DEPARTMENT	Mathematics and Engineering
COURSE RUBRIC & NUMBER	MATH 1342
COURSE NAME	Elementary Statistics
CATALOG DESCRIPTION	Collection, analysis, presentation and interpretation of data, and probability. Analysis includes descriptive statistics, correlation and regression, confidence intervals and hypothesis testing.
NUMBER OF SECTIONS OFFERED/FALL	5
NUMBER OF SECTIONS OFFERED/SPRING	6
EXTIMATED ANNUAL ENROLLMENT	276
COURSE LEVEL	Freshman
CONTACT PERSON (dept. representative)	Dr. Krista Cohlmia
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DEPARTMENT APPROVAL STATUS	Approved - Date 4/10/2013
CORE COMMITTEE COMMENTS (REQUEST FOR ADDITIONAL INFORMATION)	
CORE COMMITTEE APPROVAL STATUS	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>Critical Thinking Skills - 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>		<p>Upon successful completion of this course, the student will:</p> <p>1. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.</p>	<p>1. The student will be able to correctly use probability rules.</p>	<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 Critical Thinking rubric.</p>
2	<p>Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and</p>		<p>Upon successful completion of this course, the student will</p> <p>1. Recognize, examine and</p>	<p>1. The student will be able to correctly calculate, present and interpret descriptive statistics.</p>	<p>Students will participate in group discussions, complete homework or quizzes, and take</p>	<p>This core objective will be assessed by an interdepartmental assessment committee using the</p>

	<p>visual communication.</p> <p><i>Must be addressed in all core curriculum courses</i></p>		<p>interpret the basic principles of describing and presenting data.</p>		<p>exams. The comprehensive departmental course final exam will be submitted for assessment.</p>	<p>Communication rubric.</p>
3	<p>Empirical and Quantitative Skills - 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 & 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:</p> <ol style="list-style-type: none"> 1. Recognize, examine and interpret the basic principles of describing and presenting data. 2. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics. 3. Describe and compute confidence intervals. 4. Solve linear regression and correlation problems. 5. Perform hypothesis testing using statistical methods. 	<ol style="list-style-type: none"> 1. The student will be able to correctly calculate, present and interpret descriptive statistics. 2. The student will be able to correctly use rules of probability. The student correctly chooses a confidence interval formula, correctly calculates the endpoints of the interval and correctly interprets the confidence interval. 4. The student correctly calculates linear regression equations and linear correlation coefficients. 	<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>

				5. The student correctly identifies the appropriate hypothesis testing procedure, correctly applies the procedure, and correctly interprets the results of the hypothesis test.		
4	<p>Teamwork - 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 & Physical Sciences, and Creative Arts component area core curriculum courses. Optional for all other component areas.</i></p>					
5	<p>Social Responsibility: 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</i></p>					

	<p><i>Language, Philosophy & Culture, Creative Arts, American History and Government/Political Science, and Social & Behavioral Sciences component area core curriculum courses. Optional for all other component areas.</i></p>					
6	<p>Personal Responsibility - 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 & Culture, American History and Government/Political Science component area core curriculum courses. Optional for all other component areas.</i></p>					
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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