

Application Form for Proposed Courses

Revised General Education Program Curriculum

Approvals and Statements:

Department Head: [Bray, William O \(M01813734\)](#)

Approval Status: Approved

Statement: It's ready to go.

Date: 2017-11-06 15:49:25.0

Dean: [Jahnke, Tamera S \(M00096158\)](#)

Approval Status: Approved

Statement:

Date: 2017-11-08 08:22:20.0

CGEIP Chair: [Walker, Elizabeth L \(M00096136\)](#)

Approval Status: Approved

Date: 2018-01-08 15:07:09.0

Course Information:

Submitting User:	Bray, William O (M01813734)
Submitting Date:	2017-10-25 13:02:03.0
Department Code:	MTH
Course Number:	136
Course Title:	Precalculus 1
Credit Hours:	3
Prerequisites:	Suitable score on the mathematics placement exam or a grade of C or better in MTH 101 or MTH 103.
How the course aligns with the GLG's:	This course is part one of a two course sequence with emphasis on the analytic, graphical, and numerical representations of functions. The focus of the course is on the library of algebraic functions (polynomial, rational, exponential, and logarithmic functions) along with higher algebraic reasoning in preparation for the study of Calculus (MTH 261). In this vein, the course provides a concrete realization of the SLO's defining General Goal 5. Alternatively, MTH 136 is a focused revision of the current General Education course MTH 135 College Algebra--focused in the sense that it is aimed at preparing students, primarily coming from STEM fields, to study Calculus (MTH 261). The new courses being proposed (MTH 136 Precalculus 1 and MTH 137 Precalculus 2) provide a two course sequence equivalent to the one semester course MTH 138. Hence, MTH 136 aligns with the learning goals in the same was as MTH 138.
Syllabus Attachment:	MTH136-Precalculus1-Syl-Pol1508954523144.docx

Curricular Area, General Learning Goals, and Specific Learning Outcomes:

Course Area:	Foundations
Course Type:	Quantitative Literacy

General Goal (5): Students will be able to reason and solve quantitative problems from a wide array of contexts and everyday life situations; understand and create logical arguments supported by quantitative evidence; and clearly communicate those arguments in a variety of formats (e.g., words, tables, and mathematical equations) as appropriate.

- **SLO5.1 - Interpret and communicate information presented in mathematical forms (e.g., equations, functions, graphs, diagrams, tables, or words).**

Tool(s) used to assess this specific learning outcome:

- Locally developed exam
- Specific item on an exam

Assessment data instructors will track and report:

- Number of items correct
- Percent of items correct

- **SLO5.2 - Convert relevant information into various mathematical forms (e.g., equations, functions, graphs, diagrams, tables, or words).**

Tool(s) used to assess this specific learning outcome:

- Locally developed exam
- Specific item on an exam

Assessment data instructors will track and report:

- Number of items correct
- Percent of items correct

- **SLO5.3 - Calculate numerically and symbolically to solve a problem.**

Tool(s) used to assess this specific learning outcome:

- Locally developed exam
- Specific item on an exam

Assessment data instructors will track and report:

- Number of items correct
- Percent of items correct

- **SLO5.5 - Use appropriate mathematical tools to explicitly describe assumptions, mathematical relationships, and conclusions.**

Tool(s) used to assess this specific learning outcome:

- Locally developed exam
- Specific item on an exam

Assessment data instructors will track and report:

- Number of items correct
- Percent of items correct

- **SLO5.6 - Express evidence in support of an argument by employing an appropriate form of presentation (e.g., equations, functions, graphs, diagrams, tables, or words).**

Tool(s) used to assess this specific learning outcome:

- Locally developed exam
- Specific item on an exam

Assessment data instructors will track and report:

- Number of items correct
- Percent of items correct

Enrollment:

	Fall	Spring	Summer	Intersessions
Number of Sections:	6	6	1	0
Enrollment Per Section:	35	35	50	0

Total Annual Enrollment: 470

Other Considerations:

Modalities

- Traditional
- Online
- Evening

High Impact Education Experiences

Instruction:

- Instructor type(s):** Instructors in the department.
- Instructor Qualifying Criteria:** Master's degree in mathematics or an MSED in mathematics with at least 18 credit hours of graduate level mathematics.
- Instructional methods that support student success:** Office hours, instructor led help sessions, email, online homework, written homework, instructor created handouts, technology use, videos.

Assessment:

Primary individual(s) that will review and analyze the assessment data across sections:

- Assessment coordinator

How results will be shared with those that teach the course:

- Oral report
- Written Report

When results will be shared with those that teach the course:

- Each year

Coordinator: William Bray

Completed GEA Training: No

Comments

Smith, Joshua J	CGEIP	2018-01-17 09:00:20.0	This course is a redesign of MTH 135 to focus more toward the STEM majors that go to take MTH 261 and is part of a two semester sequence of courses and is equivalent to the first portion of MTH 138 which is currently in the general education quantitative literacy area. There is a paragraph of the assessments tools to be used in the syllabus which includes homework, quizzes, tests, and common written final but in the application it only states locally developed exams and exam questions and not the homework and quizzes and without a tentative outline of the content of the course and these assessments integrated within that it is hard to see if these things will actually be used for assessment. A updated syllabus showing a tentative course outline where the assessments are integrated into the content so that students can see where they will be assessed during the course was required for all other courses that were approved by CGEIP and I recommend conditional approval with MTH 136 supplying a example syllabus of the course with the course outline and assessments and the SLOs more integrated into the course goals on the first time Annual report submission to CGEIP.
Altena, Thomas S	CGEIP	2018-01-12 10:13:46.0	MTH136, Precalcululs 1, is focused on General Goal 5, Quantitative Literacy assessing SLO 5.1, 5.2, 5.3, 5.4, 5.5, and 5.6. Proposed course will be taught Fall, Spring, and Summer semesters in Traditional, Online, and Evening formats and includes High Impact

Educational Experiences. With the exception of SLO 5.4, all SLO's appear to be evaluated appropriately and objectively in the three categories of 1) Foundations of Functions, 2) Analysis of Functions, and 3) Algebraic Reasoning; the terms "measure, compute, create, describe, and interpret" all indicate logical progression from calculating towards understanding. SLO 5.4 is mentioned in the syllabus but is absent from the application and syllabus does not explain how it is evaluated; SLO 5.4 has potential latitude for "reasonable and appropriate conclusions". Suggest consistency between the syllabus and application. Assessment of SLOs occurs with specific items on exams, a locally developed exam and numbers/percent on exam/assignment. Overall, this reviewer recommends to "approve" MTH136 for General Education after SLO 5.4 comments are addressed.

Walker, CGEIP 2018-01-08 Please submit revised syllabus during first annual report.
Elizabeth Chair 15:07:09.0
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