

Mathematics Program

Associated Faculty (indicate Full Time or Adjunct) __George Peters – Full Time _____

Program Mission Statement: The principal goals of the mathematics program at Greenville College are to foster students who value mathematics for its own sake and value it as a means of describing God's universe. The program seeks to prepare students for advanced study in mathematics and to perform in the work force. The mathematics program also serves to assist in the preparation of students for advanced work in complementary fields.

Program/Major Objectives: *Qualities and competencies expected in graduates from this program/major*

At the close of their degree successful students will be able to:

1. Integrate a variety of mathematical concepts and skills into problem solving.
2. Construct and communicate creative work, including proofs, using the language and symbolism of mathematics.
3. Solve problems using technology.
4. Develop a breadth of knowledge in the applications of mathematics.

| Student Learning Outcomes | Program Objective # | Course Objective # | Course Number | Assignment in Course | Assessment Method | Level of Mastery expected in this course |
|---|---------------------|--------------------|---------------|--|-------------------|--|
| 1. Seek Truth Through Critical Inquiry and Research | | | | | | |
| 1.1 Practice critical self-awareness | 1 | 1 | MATH301 | Final Exam | 55% | Mastered |
| | 1 | 4 | MATH302 | Exam Average | 55% | Mastered |
| | 1 | 3 | MATH304 | Final Exam | 55% | Mastered |
| | 1 | 1 | MATH306 | Final Exam | 55% | Mastered |
| | 1 | 2 | MATH308 | Final Exam | 55% | Mastered |
| | 1 | 3 | MATH319 | Final Exam | 55% | Mastered |
| 1.2 Understand our world and comprehend quantitative and conceptual relationships | 4 | 2 | MATH218 | Applied Content Exam | 55% | Developed |
| | 4 | 2 | MATH116 | Average of Applied Integration Exam & Vectors/Space Geometry Exams | 60% | Introduced |
| | 4 | 2 | MATH301 | Statistics Exams | 60% | Mastered |
| | 4 | 2 | MATH304 | Final Exam | 70% | Mastered |
| | 4 | 2 | MATH306 | Final Exam | 60% | Mastered |
| | 4 | 3 | MATH308 | Group Theory Exam Average | 60% | Mastered |
| 1.3 Think integratively to solve problems | | | | | | |
| 1.4 Apply skills and systematic reasoning | 1 | 1 | MATH116 | Final Exam | 55% | Introduced |
| | 1 | 2 | MATH217 | Final Exam | 60% | Developed |
| | 2 | 2 | MATH116 | Seq. & Series Exam | 60% | Introduced |
| | 2 | 2 | MATH312 | Exam average | 60% | Developed |
| | 2 | 3 | MATH302 | Geom. Exam average | 60% | Mastered |
| | 2 | 3 | MATH306 | Programming HW | 60% | Mastered |
| | 3 | 4 | MATH306 | Exam average | 70% | Mastered |
| | 2 | 1 | MATH308 | Final Exam | 60% | Mastered |
| | 2 | 3 | MATH319 | Final Exam | 60% | Mastered |
| | 3 | 3 | MATH115 | Simpson's Rule & Newton's Method HW | 60% | Introduced |

Learning Objective Alignment Worksheet

January 2017

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|--|---|---|----------------------|---|-----|-----------|
| | 3 | 3 | MATH218 | Euler's Method HW | 70% | Developed |
| | 3 | 2 | CIS210 or MATH170 | Average of the Final Programming project score and HW/Quiz score | 70% | Mastered |
| 2. Collaborate and Communicate | | | | | | |
| 2.1 Communicate and Cooperate | 2 | 2 | MATH302 | Mathematics History Paper | 70% | Mastered |
| 2.2 Value others | | | | | | |
| 3. Engage Culture and Be Creative | | | | | | |
| 3.1 Demonstrate cultural awareness | | | MATH302 | History Exam #1 | 60% | |
| 3.2 Demonstrate creativity and appreciation for arts, beauty, and ideas | 2 | 1 | MATH312 | Total HW Grade | 60% | Developed |
| 4. Demonstrate Faith and Learning in Action | | | | | | |
| 4.1 Recognize worldviews | | | | | | |
| 4.2 Apply Christian values | | | | | | |
| 4.3 Respond to God | | | | | | |
| 4.4 Maintain healthy self-regard and a growth-focused lifestyle | | | | | | |