## Proposal Form For Addition And Revision Of Courses

1. **Proposing College / School:** College of Science and Mathematics  
   **Department:** Department of Mathematics and Statistics

2. **Course Prefix and Number:** MATH 1133  
   **Effective Term:** Summer '14

4. **Course Title:** Precalculus: Trigonometry
   **Abbreviated Title:**

5. **Requested Action:**
   - [ ] Add a Course
   - [ ] Revise a Course
   - [ ] Renumber a Course
   **Current Course Number:**
   **Proposed Course Number:**
   **Type of Revision:**

6. **Course Credit:**
   **Weekly or Per Term?:** weekly
   **Credit Hours:** 3
   **Anticipated Enrollment:** 50

7. **Grading Type:**
   - [ ] Regular (ABCDF)
   - [ ] Satisfactory/Unsatisfactory (S/U)
   - [ ] Audit

8. **Prerequisites/Corequisites:**
   **P:** MPP score of 056 or MPA2 score of 056 or MATH 1120

9. **Restrictions:** List specific restriction in space above.

10. **Course Description:**
     Preparatory course for the calculus sequence. Basic analytic and geometric properties of the trigonometric functions. Complex numbers, de Moivre's Theorem, polar coordinates.

11. **May Count Either:**
    **MATH 1130** or **MATH 1133**
    (Indicate if this particular course cannot be counted for credit in addition to another)

12. **Affected Program(s):**
    **Program Type** | **Program Title** | **Requirement or Elective?**
    (e.g.: minor, major, etc.) | (e.g.: MS in Chemistry, Performance Option, Minor in Art) | (required or optional?)
    Core | N/A | both

13. **Overlapping or Duplication of Other Units' Offerings:**
    (If course is included in any other degree program, is used as an elective frequently by other unit(s), or is in an area similar to that covered by another college/school, attach correspondence with relevant unit)
    - [ ] Applicable
    - [ ] Not Applicable
14. Justification: This is a core level course used under many majors. Offering it online would allow for flexibility and easier accessibility to the students. (Include a concise, yet adequate rationale for the addition/revision of the course, citing accreditation, assessments (faculty, graduate, and/or external) where applicable)

15. Resources: No new resources required.

Resources already available:
- AU student code of discipline: https://sites.auburn.edu/admin/universitypolicies/Policies/CodeofStudentDiscipline.pdf
- Online netiquette: http://www.studygs.net/netiquette.htm
- AU online Bookstore: http://www.aubookstore.com/pretextbooks.asp
- AU digital library: http://diglib.auburn.edu/
- AU library: http://www.lib.auburn.edu/policies: https://sites.auburn.edu/admin/universitypolicies/default.aspx
- Accessibility Link: https://fp.auburn.edu/disability/index.asp
- Writing Center: https://fp.auburn.edu/writing/writingcenter.aspx
- Canvas for Auburn: https://auburn.instructure.com/
- Enhanced WebAssign: https://www.webassign.net/

(Indicate whether existing resources such as library materials, classroom/laboratory space, and faculty appointments are adequate to support the proposed addition/revision; if additional resources are required, indicate how such needs will be met, referencing the appropriate level of authorization -- i.e.: Dean -- where necessary; if no additional resources or shifting of resources will be necessary, respond "Not Applicable")

16. Student Learning Outcomes: 1. The student will use the unit circle to evaluate trigonometric functions and their inverses.
2. The student will solve triangles and related word problems.
3. The student will graph the trigonometric functions and their inverses.
4. The student will prove trigonometric identities and use these to solve trigonometric equations.
5. The student will convert to, and plot in polar coordinates.
6. The student will use the polar form of a complex number including DeMoivre's Theorem.
7. The student will use vectors to solve applications.

(State in measurable terms (reflective of course level) what students should be able to do when they have completed this course)

17. Course Content Outline: All assignments are due at the end of the week on Fridays.

- Week 1 - Introduction and algebra review
- Week 2 - Sections 6.1-6.3: Angles and Right Triangle trigonometry
- Week 3 - Sections 5.1-5.2: Unit Circle
Week 4 - Sections 5.3-5.4: Graphs of Trigonometric Functions
Week 5 - Sections 5.5, 6.4: Inverse Trigonometric Functions
Week 6 - Sections 6.5-6.6: Laws of Sine and Cosine
Week 7 - Sections 7.1-7.3: Trigonometric Identities
Week 8 - Sections 7.4-7.5: Trigonometric Equations
Week 9 - Sections 8.1-8.3: Polar Coordinates and Polar Form
Week 10 - Sections 9.1-9.2: Vectors

(Provide a comprehensive, week-by-week breakdown of course content, including assignment due dates)

18. Assignments / Projects:
The course will be set up in 3 components: modules, conference participation, and final exam.

Modules will be accessed through Enhanced WebAssign which is available with the text purchase. Each module will consist of practice homework, media assignments, and an exit examination. Modules are due at the end of the week. Module exams will be conducted online in a virtual testing environment (timed exam, browser lock-down, IP address lock).

Conference participation will be awarded for attending one of three online conferences per week. Conferences will be held through Canvas using Big Blue Button. These will be question and answer sessions in a small groups.

The final will be a paper-based comprehensive exam proctored on campus. It will be a multiple choice exam consisting of approximately 32 questions.

All communication will be conducted through Canvas with WebAssign communication as secondary. Students can contact the instructor through either. Grades will be posted in Canvas with a copy in WebAssign. By Summer 2014 / Fall 2014, WebAssign should be synced with Canvas.

(List all quizzes, projects, reports, activities and other components of the course grade -- including a brief description of each assignment that clarifies its contribution to the course’s learning objectives)

19. Rubric and Grading Scale:
Grades will be awarded based on the following.

Modules (10 units) 50%
Participation 10%
Final exam 40%
Total Awarded 100%

A = 90-100%
B = 80-89%
C = 70-79%
D = 60-69%
F = 0-59%

(List all components of the course grade -- including attendance and/or participation if relevant -- with point totals for each; indicate point totals and ranges or percentages for grading scale; for S/U grading, detail performance expectations for a passing grade)

20. Justification for Graduate Credit:
(Include a brief statement explaining how the course meets graduate educational standards (i.e.: rigorous standards for evaluation, development of critical thinking and analytical skills, etc.))
POLICY STATEMENTS

Attendance: Although attendance is not required, students are expected to attend all classes, and will be held responsible for any content covered in the event of an absence.

Excused Absences: Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please consult the Student Policy eHandbook for more information on excused absences.

Make-Up Policy: Arrangement to make up a missed major examination (e.g.: hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

Academic Honesty Policy: All portions of the Auburn University student academic honesty code (Title XII) found in the Student Policy eHandbook will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty Committee.

Disability Accommodations: Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).
Approvals

[Signatures and dates]

Dean of the Graduate School (for Graduate Courses)

Assoc. Provost for Undergraduate Studies (for Undergraduate Courses)

Contact Person: Regina Greiwe Jackson
E-Mail Address: greiwm@auburn.edu
Telephone: 4-4354
Fax: 4-6555