1. **Minor Title:**
   
   Earth and Space Science

2. **Contact person:** James MacDonald
   
   **College:** Arts and Sciences
   
   **Department/School:** Marine and Ecological Sciences
   
   **Telephone:** 239-590-7429

3. **Briefly describe the proposed revision(s).**
   We are modifying the upper division electives of this minor so that students will have to take at least one upper division astronomy and geology course. See section (5) below for more information.

4. **Effective date:** Fall 2014
   
   Changes are effective in the fall of the year. Exceptions are approved only in unusual circumstances with adequate justification.

5. **Briefly explain the rationale for the proposed revision.**
   
   Link the proposed revision to assessment and institutional effectiveness activities (feedback from students, market demands, program evaluation, resource allocation, etc.).

   We are revising this minor so that it better reflect its original intent -- which is a combination of geology and astronomy at both the lower and upper course level. Most Earth & Space Science students currently take only one 2000-level astronomy course and fill out the minor with geology courses at the upper division level. The revisions to this minor will truly integrate astronomy and geology by requiring student that declare this minor to take upper division geology and astronomy courses.

6. **Describe additional library resources needed to support this revision? Explain rationale for response, even if answer is None.**
   
   Revision will not cause any changes to the existing library resources provided to the courses that fulfill this minor. The courses needed to fulfill this minor are already being taught on a regular 2-year rotation basis.

7. **Describe additional faculty resources needed to support this revision? Explain rationale for response, even if answer is None.**
   
   Revision to this minor will not require any additional faculty resources. Courses that are needed to fulfill this minor are already being offered on a 2-year rotation. Further, three additional faculty have been added since the inception of this minor, two ranked faculty, and an Eminent Scholar.

8. **Describe additional technology, facility, laboratory, or other resources needed to support this revision? Explain rationale for response, even if answer is None.**
   
   None; courses that are needed to fulfill this minor are offered on a regular 2-year rotation basis.

9. **What impact will the proposed revision have on other colleges, units, or programs?**
   
   None. This minor utilizes existing courses that are utilized by existing bachelor programs in CAS and as technical electives for Whitaker College of Engineering. Students enrolled in this minor increase the enrollment in these courses towards higher capacities.

10. **New courses:**
    
    - [x] New courses are needed. List prefix/number/title below. Complete a Course Add Form for each from the Curriculum Management System - [https://midas.fgcu.edu/acadaff/scns/](https://midas.fgcu.edu/acadaff/scns/).
Two courses (AST 3722C, Observational Astronomy; & GLY 3202C Mineralogy & Petrology) that were offered as astronomy and geology special topics courses, respectively, are being transitioned into "real" courses. This was by request of the CAS Dean's office due to a heavy reliance on special topics courses, and in an attempt to make the catalog more understandable for students. Existing faculty, who were hired to teach these specific courses, will continue to offer these courses as part of their two-year rotation. GLY 3202C has been accepted as an upper division elective in the Marine Science program; however, it it fall under "Electives in the Major", section "e" -- which requires no change to the Marine Science catalog.

11. Change to existing courses:
   □ Existing courses are being changed. List prefix/number/title below. Complete a Course Change Form for each from the Curriculum Management System - https://midas.fgcu.edu/acadaff/scns/
   No courses need to be modified for the revision of this minor.

12. Termination of existing courses:
   □ Courses are being terminated. List prefix/number/title below. Complete a Course Terminate Form for each course from the Curriculum Management System - https://midas.fgcu.edu/acadaff/scns/
   No courses need to be deleted for the revision of this minor.

13. Catalog copy:
   Attach an edited, tracked copy in color of the catalog display for this Minor showing all revisions using the online catalog copy from the current academic year - http://www.fgcu.edu/catalog/

   Reminder: The prefix/number for a new course is handled one way in the CMS and another way in the catalog copy. In the CMS, a new course is identified by entering the suggested prefix/number. In the catalog copy, the same new course is listed with the suggested prefix, the course level, and XXX (e.g., 2XXX or 4XXX). When final approval for the course prefix/number is received from SCNS, the catalog copy will be updated.

14. Additional remarks:

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APPROVALS (required prior to submission)

Department/Program Chair/Director

College Curriculum Committee Chair

College Dean

Does another department or unit provide related expertise or offer similar courses? □ No □ Yes (If yes, have the other department complete the following. Attach a separate sheet if needed.)

Department/Unit:
   □ Supports this proposal □ Does not support this proposal □ Defers Recommendation

Authorizing signature: ___________________________ Date ___________________________

Comments:

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Undergraduate Curriculum Team: □ Approves □ Approves w/conditions □ Does not approve

Signature: ___________________________ Date ___________________________

Comments/Conditions:

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Minor Revision Proposal – revised 3-10-10
Earth and Space Science Minor

General Requirements for a Minor

- Students must meet with a college advisor to declare a minor and review the course requirements.
- A grade of C of higher is required in all courses for the minor.
- A minimum of 12 credit hours of the minor must be completed at FGCU.
- Students desiring certification of a minor and designation on their academic transcript must:
  - Note the minor on their Application for Graduation.
  - Contact a college advisor to certify completion of all course requirements for the declared minor as listed below.

Program Specific Information

Complete the following:

- GLY 1000C Physical Geology (4)

Complete one of the following:

- AST 2100C Solar System Astronomy (4)
- AST 2004C Stellar Astronomy (4)

Complete the following:

- 3 to 4 additional credits from any 3000-4999 AST course

Complete the following:

- 3 to 4 additional credits from any 3000-4999 GLY course

Complete the following:

- 3 to 4 additional credits from any 3000-4999 AST or GLY course

**TOTAL SEMESTER HOURS REQUIRED: 17-20**

Transfer Notes and Acceptable Substitutes

Transfer credits will ordinarily be accepted from regionally accredited institutions and evaluated for appropriate credit towards requirements in the student's degree program.

GLY 1000 Physical Geology (3) and GLY 1000L Physical Geology Lab (1) can be substituted for GLY 1000C Physical Geology (4)

GLY 1010C Physical Geology or GLY 1010 Physical Geology and GLY 1010L Physical Geology Lab can be substituted for GLY 1000C Physical Geology (4)