Submit one printed copy of this form with signatures and one printed copy of the syllabus to the Provost/VPAA's Office (Austin Building, Room 309). Initial submissions are due no later than February 15, 2013.

1. College: **Science and Mathematics**
2. Department: **Geology**
3. Course status: **new; requires new course approval**
4. Course prefix and number: **GOL 101**
5. Course title: **Fundamentals of Earth Science**
6. Course catalog description: **Fundamentals of Earth Science (GOL 101) - Three semester hours, two hours lecture, two hours laboratory per week. An introduction to the fundamental principles of Earth Science. Topics include the earth's structure and surface landforms; mineral and energy resources; geologic hazards such as volcanoes, earthquakes and landslides; water resources; and the unifying theory of plate tectonics. Required lab fee. No prerequisites.**
7. Number of semester credit hours: **3**
8. Estimated total course enrollment per year: **500**
9. Course prerequisites and/or required qualifications for enrolling in the class: **TSI Complete**
10. Course **is/will be** available online.
11. Foundational Component Area: **Life and Physical Sciences**
12. Explain why this course fits into this foundation component area: **Earth science is the study of the earth's structure and natural processes. In this course, students will be introduced to and apply the scientific method to evaluate hypotheses regarding the earth's structure, the distribution of natural resources, the immediate and long-term impact of geologic hazards, and anthropogenic influence on the natural world.**
13. Core Objectives
    - Critical Thinking - Students will be introduced to critical thinking skills in the form of the scientific method through laboratory exercises led by the instructor, writings and examples within the laboratory manual, and practical examples within the laboratory period. These skills will be reinforced in every laboratory exercise throughout the semester; they will use these skills to form hypotheses about the identification of geologic materials, the formation of geomorphic landforms, the causes and mitigation of geologic hazards, and the sources of Earth's energy available to the population. Students will demonstrate their critical thinking skills in embedded questions designed to help them analyze geologic data and express their observations and conclusions in written essay questions. As part of the group project, students will learn to collaborate with each other and analyze data to determine the correlation between earthquake intensity and tectonic plate boundary interaction.
    - Communication Skills - Instructions on oral, written, and visual communication skills will be introduced during the second week of laboratory exercises with a partnered exercise. Students will be required to work together and communicate with each other to complete laboratory exercises. Students will work with partners throughout the semester, enhancing collaborative communication skills through various laboratory exercises. Students will also be instructed on the presentation of scientific data in written and visual form by the laboratory instructor, by writings and examples within the laboratory manual, by group laboratory exercises, and by a handout, "Reporting Scientific Information". Students will demonstrate written and visual communication skills in various laboratory exercises, and as part of the group project in the Earthquakes and Plate Boundaries laboratory exercise. This project will help students create a digital representation of the data associated with earthquakes. Students will follow proper science format, which will include written paragraphs, graphic representation of the data, and evaluation and synthesis of the results.
    - Empirical and Quantitative Skills - Students will be introduced to empirical and quantitative skills during the second week of laboratory exercises and asked to determine the erosion rates of specific geologic materials. These skills will be reinforced throughout the semester with various laboratory exercises facilitated by the instructor and through embedded assessments in the Volcanoes and Volcanic Processes Laboratory, the Earthquake Laboratory, the Earth's Energy and Climate Laboratory, and the Fluvial Processes Laboratory. Students will demonstrate their empirical and quantitative skills through embedded questions that require them to manipulate and analyze data and then express their conclusions. Required activities will include

making proper measurements, performing calculations, and graphically representing their data in order to draw conclusions.
- Teamwork - Students will be instructed on working as a team during the second week of laboratory. Throughout the semester, they will work in teams of 2-4 to complete various laboratory exercises. Students will work practical exercises during laboratory, fostering good teamwork amongst the students. Instructor support, as well as written instructions in the form of handouts and writings in the laboratory manual, will foster communication within their respective groups as they work together to complete the assignments. Students will continue to work in teams throughout the semester in various laboratory exercises, and also within a group project during week 7 in the Earthquakes and Plate Boundaries Laboratory.

14. Email the syllabus for this course to brewersj@sfasu.edu. Please include the course prefix, course number and the word "Syllabus" in the file's title (e.g. PSC 141 Syllabus).
    - The syllabus must meet the SFASU Course Syllabus Guidelines as published by the Provost/VPAA. A link to these guidelines can be found at http://www.sfasu.edu/acadaffairs.
    - Student learning outcomes should be clearly specified in the syllabus. These are course objectives—describing what students who complete the course will know or be able to do. Required core objectives (see above and Appendix 2) should be represented in the student learning outcomes.
    - A course calendar should be included in the syllabus. The calendar should list the topics that the course will cover and indicate the approximate amount of time to be devoted to each, either by percent of course time or number of weeks. The outline should indicate which topics will be required in all sections of the course and which may vary. If time in the course is to be specifically devoted to the required core objectives (see above and Appendix 2), that should be indicated in the course calendar.

Contact person for questions about this submission:

a. Mindy Shaw Faulkner
b. 936-468-2236
c. mgshaw@sfasu.edu

A separate description of the institution-level assessment procedures to be used for the core curriculum will be distributed by the Core Curriculum Assessment Committee. Course acceptance by the Core Curriculum Advisory Committee does not guarantee acceptance by the Core Curriculum Assessment Committee. Approval by both committees is required for a course to be included in the core.

Department chairperson signature:
_____ Date:_____

College dean signature:
_____ Date:_____