



**REQUIREMENTS FOR THE M.ED. WITH A MAJOR IN  
SECONDARY EDUCATION SPANISH – TEACHING FIELD SPANISH**

Core Curriculum .....	7 hours
PSYC 7010 Learning and Assessment .....	3 hours
RSCH 7100 Research Methodology in Education .....	3 hours
LEAD 7210 Ethics and Law .....	1 hour

Area of Concentration .....	29 hours
Content Courses (Guided Electives in Spanish) .....	21 hours
FLED 7100 Professional Development Seminar I .....	2 hours
FLED 7500 Theory and Practice in Second Language Acquisition .....	2 hours
FLED 7600 Research and Design .....	2 hours
FLED 7800 Professional Development Seminar II .....	2 hours

This program also requires students to prepare and present a professional portfolio.

Total Required for the Degree ..... 36 semester hours

The Department of Modern and Classical Languages evaluates the level of linguistic proficiency and cultural knowledge achieved by the students in the Master of Education degree program in Spanish by using a variety of assessment measures. The results of the assessment activities are used for continued curriculum development and revision.

**Outcomes Assessments**

1. Coursework and Comprehensive Examination: The Department of Modern and Classical Languages will assess students' listening reading, and writing proficiency through an examination administered upon the students' entry into the program. These skills will be assessed again upon their completion of the program through the Comprehensive Examination. Knowledge of content material related to Hispanic culture, linguistics, and literature will be assessed through a similar procedure. A Simulated Oral Proficiency Interview to assess speaking proficiency will be administered when students enter the program and upon their completion of the program. The corresponding department will evaluate core courses through written examinations, projects, papers, and presentations and through the Comprehensive Examination that is administered upon the students' completion of the program.
2. Student Portfolio: Students are required to maintain a professional portfolio containing goal statements, sample papers, research projects, course work, reflective self-assessment, and other specified items to be monitored as the students progress through the program. The portfolio will be submitted for partial fulfillment of the requirements for this M.Ed. degree.

**Proposed Requirements or Proposed Outcomes & Assessments (Show changes in BOLD):**

The Department of Modern and Classical Languages, in conjunction with the Department of Middle Grades and Secondary Education, offers the Master of Education degree with a major in secondary education-teaching field Spanish.

Students entering the program for this Master of Education degree have already met initial certification requirements and, consequently, have the necessary foundations in language, culture, literature, and professional education for advanced study. In their graduate work, the foreign language education (FLED) students take ~~21~~ at least **20** hours of guided electives at the graduate level within the content area of Spanish. Following an integrated approach, these courses are designed to promote competencies in the areas of language, literature, and culture at the superior level of proficiency and to provide students with a focused and in-depth program of study. Students take a course dealing with second language acquisition, in order to further their knowledge in the areas of instructional and learning strategies and their application in foreign language teaching, and a core of professional education courses that address ideas, concepts, and trends

associated with education and how these relate to educators. Finally, through a professional development seminar, students are required to perform self-assessment, determine areas of skill and knowledge in need of improvement, and design an effective career growth and development plan, as a preliminary step in expanding and modifying their personal teaching strategies.

## MASTER OF EDUCATION WITH A MAJOR IN SECONDARY EDUCATION SPANISH – TEACHING FIELD SPANISH

### Selected Educational Outcomes

1. Program graduates will demonstrate the ability to listen, speak, read, and write at the advanced or superior level of proficiency (as defined by the American Council on the Teaching of Foreign Languages Proficiency Guidelines) in the Spanish language and an in-depth knowledge of Hispanic cultures and representative authors and works of Hispanic literature.
2. Program graduates will demonstrate knowledge of and the ability to use innovative approaches to curriculum, instructional methods, resources, and assessment appropriate to the teaching of foreign languages.
3. Program graduates will develop and integrate personalized teaching strategies.
4. Program graduates will demonstrate an understanding of second-language acquisition and its relation to first-language development and the ability to create meaningful learning opportunities based on this knowledge.
5. Program graduates will demonstrate an understanding of research methods in language learning.

### REQUIREMENTS FOR THE M.ED. WITH A MAJOR IN SECONDARY EDUCATION SPANISH – TEACHING FIELD SPANISH

Core Curriculum: .....	7 hours
PSYC 7010 Learning and Assessment .....	3 hours
RSCH 7100 Research Methodology in Education .....	3 hours
LEAD 7210 Ethics and Law .....	1 hour
Area of Concentration .....	29-30 hours
Content Courses (Guided Electives in Spanish) .....	20-21 hours
FLED 7100 Professional Development and Issues Seminar I .....	2 3 hours
FLED 7500 Theory and Practice in Second Language Acquisition .....	2 3 hours
FLED 7600 Research and Design .....	2 3 hours
FLED 7800 Professional Development Seminar II .....	2 hours

This program also requires students to prepare and present a professional portfolio.

Total Required for the Degree ..... 36-37 semester hours  
The Department of Modern and Classical Languages evaluates the level of linguistic proficiency and cultural knowledge achieved by the students in the Master of Education degree program in Spanish by using a variety of assessment measures. The results of the assessment activities are used for continued curriculum development and revision.

### Outcomes Assessments

1. Coursework: and Comprehensive Examination: The Department of Modern and Classical Languages will assess students' listening, reading, and writing proficiency through an examination administered upon the students' entry into the program. These skills will be assessed again upon their completion of the program through the Comprehensive Examination. Knowledge of content material related to Hispanic culture, linguistics, and literature will be assessed through a similar procedure. An Simulated Oral Proficiency Interview to assess speaking proficiency will be administered when students enter the program and upon their completion of the program. The corresponding department will evaluate core courses through written examinations, projects, and papers, and presentations and through the Comprehensive Examination that is administered upon the students' completion of the program.

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2. **Capstone experience: Student Portfolio:** Students are required to maintain a professional portfolio containing goal statements, sample papers, research projects, course work, reflective self-assessment, and other specified items to be monitored as the students progress through the program. The portfolio will be submitted for partial fulfillment of the requirements for this M.Ed. degree.

3. **Research:** Program graduates will successfully conduct investigative research on one or more topics relevant to the field of Foreign Language Education and report their findings.

Justification

- 1. This program's capstone experience is an online advanced portfolio, not a comprehensive exam.
- 2. FLED 7100 needs to be the introductory course in the program (where the portfolio is begun).
- 3. FLED 7100, 7600, and 7800 need be 3 hours courses to reflect the significant content within each class.
- 4. Graduate students need to be at least at the advanced level of oral proficiency (not superior). *How do you determine this?*
- 5. Investigative research linked to a FLED topic needs to be a listed outcome of the program.
- 6. Students may take an advanced conversation course or independent study (both two hour courses) as part of their guided electives in Spanish. Thus, the student would complete 20 hours (not 21) of guided electives in Spanish.

Approvals:

Department Head	<u>AW Sorely</u>	Date	<u>Mar 20, 2008</u>
Dean (s)/Director(s)	<u>Linda Caswell</u>	Date	<u>3/24/08</u>
College Executive Committee	<u>Linda Caswell</u>	Date	<u>3/24/08</u>
Graduate Executive Committee	_____	Date	_____
Academic Committee	_____	Date	_____

# Request for A Revised Course

Valdosta State University

**RECEIVED**

Date of Submission:

Department Initiating Request:

APR 03 2008

Faculty Member Requesting Revision:

VALDOSTA STATE UNIVERSITY  
GRADUATE SCHOOL

Current Course Prefix and Number:  Current Credit Hours:

Current Course Title:

Type an 'X' for all that apply:  Revised Title  Revised Course Number  Other  
 Revised Credit Hours  Revised Course Description

Semester/Term/Year to be effective:

Estimate Frequency of Course Offering:

Indicate (by typing an 'X') if Revised Course will be  Requirement for Major  Elective Course

=====**For the following items, type an 'X' and complete only those items being revised.**=====

     Revised Course Prefix and Number:   
(See Course Designation Abbreviations in the Catalog for approved prefixes.)

Revised Course Title:

     Revised Course Title Abbreviation (for Student Transcript) Limited to 30 characters and spaces:

Revised Total Contact Hours

     Revised Lecture Hours:       Revised Lab Hours:   Revised Credit Hours:

### Revised Course Description & Justification

Credit hours for this course will change from 2 to 3. This course will include the content from FLED 7800 (Professional Development Seminar II), which will be deactivated.

Justification: This course is designed to be the first course a graduate student in the program takes (where the electronic portfolio is begun). This course needs to be a standard 3-hour course, as it includes significant content.

Continue with Justification on the back if necessary.

Approvals are to be noted on the back.

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Approvals:

Department Head(s)	<input type="text" value="AW Gentry"/>	Date	<input type="text" value="MAY 20, 2008"/>
Dean(s)/Director(s)	<input type="text" value="Linda Colandrello"/>	Date	<input type="text" value="3/24/08"/>
College Executive Committee	<input type="text" value="Linda Colandrello"/>	Date	<input type="text" value="3/24/08"/>
Graduate Executive Committee	<input type="text"/>	Date	<input type="text"/>
Academic Committee	<input type="text"/>	Date	<input type="text"/>

# Request for A Revised Course

Valdosta State University

**RECEIVED**

APR 03 2008

VALDOSTA STATE UNIVERSITY  
GRADUATE SCHOOL

Date of Submission:

Department Initiating Request:

Faculty Member Requesting Revision:

Current Course Prefix and Number:  Current Credit Hours:

Current Course Title:

Type an 'X' for all that apply:  Revised Title  Revised Course Number  Other  
 Revised Credit Hours  Revised Course Description

Semester/Term/Year to be effective:

Estimate Frequency of Course Offering:

Indicate (by typing an 'X') if Revised Course will be  Requirement for Major  Elective Course

=====For the following items, type an 'X' and complete only those items being revised.=====

Revised Course Prefix and Number:

(See Course Designation Abbreviations in the Catalog for approved prefixes.)

Revised Course Title:

Revised Course Title Abbreviation (for Student Transcript) Limited to 30 characters and spaces:

Revised Total Contact Hours:

Revised Lecture Hours:   Revised Lab Hours:   Revised Credit Hours:

### Revised Course Description & Justification

Credit hours for this course will change from 2 to 3.  
Justification: This course needs to be a standard 3-hour course, as it includes significant theoretical content.

Continue with Justification on the back if necessary.

Approvals are to be noted on the back.

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**Approvals:**

Department Head(s)	<i>W. W. W. W.</i>	Date	3/3/08
Dean(s)/Director(s)	<i>Linda Caldwell</i>	Date	3/24/08
College Executive Committee	<i>Linda Caldwell</i>	Date	3/24/08
Graduate Executive Committee		Date	
Academic Committee		Date	

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2-20-2008

**RECEIVED**  
APR 03 2008  
VALDOSTA STATE UNIVERSITY  
GRADUATE SCHOOL

Memorandum

To: Dr. Louis Levy  
From: Dr. Ransom Gladwin, MCL  
Date:  
Subject: Course Deactivation

The course FLED 7800 will no longer be taught.

Approvals:

Department Head(s)	<i>Dr. Somby</i>	Date	3/3/08
Dean(s)/Director(s)	<i>Lisa Caswell</i>	Date	3/24/08
Graduate School		Date	
VP Academic Affairs		Date	

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## Request for A New Course

### Valdosta State University

# RECEIVED

APR 03 2008

VALDOSTA STATE UNIVERSITY  
GRADUATE SCHOOL

Date of Submission: March. 4, 2008  
 Department Initiating Request: Physics, Astronomy and Geosciences  
 Faculty Member Requesting: Dr. Martha A. Leake  
 Proposed New Course Prefix & Number: GEOL 5400  
 See Course Designation Abbreviations in the Catalog for approved prefixes.

Proposed New Course Title: Planetary Geology

Proposed New Course Title Abbreviation (for Student Transcript)  
 Limited to 30 characters and spaces: Planetary Geology

Semester/Term/Year to be effective: Fall 2008

Estimate Frequency of Course Offering: Every two years

Indicate (by typing an 'X') if Course will be: \_\_\_ Requirement for Major     Elective Course  
 \*\*\*If this new course is to be included in the curriculum, be sure to initiate a Curriculum Change form.

Total Contact Hours: 3    Lecture Hours: 3    Lab Hours: 0    Credit Hours: 3

### Proposed Course Description

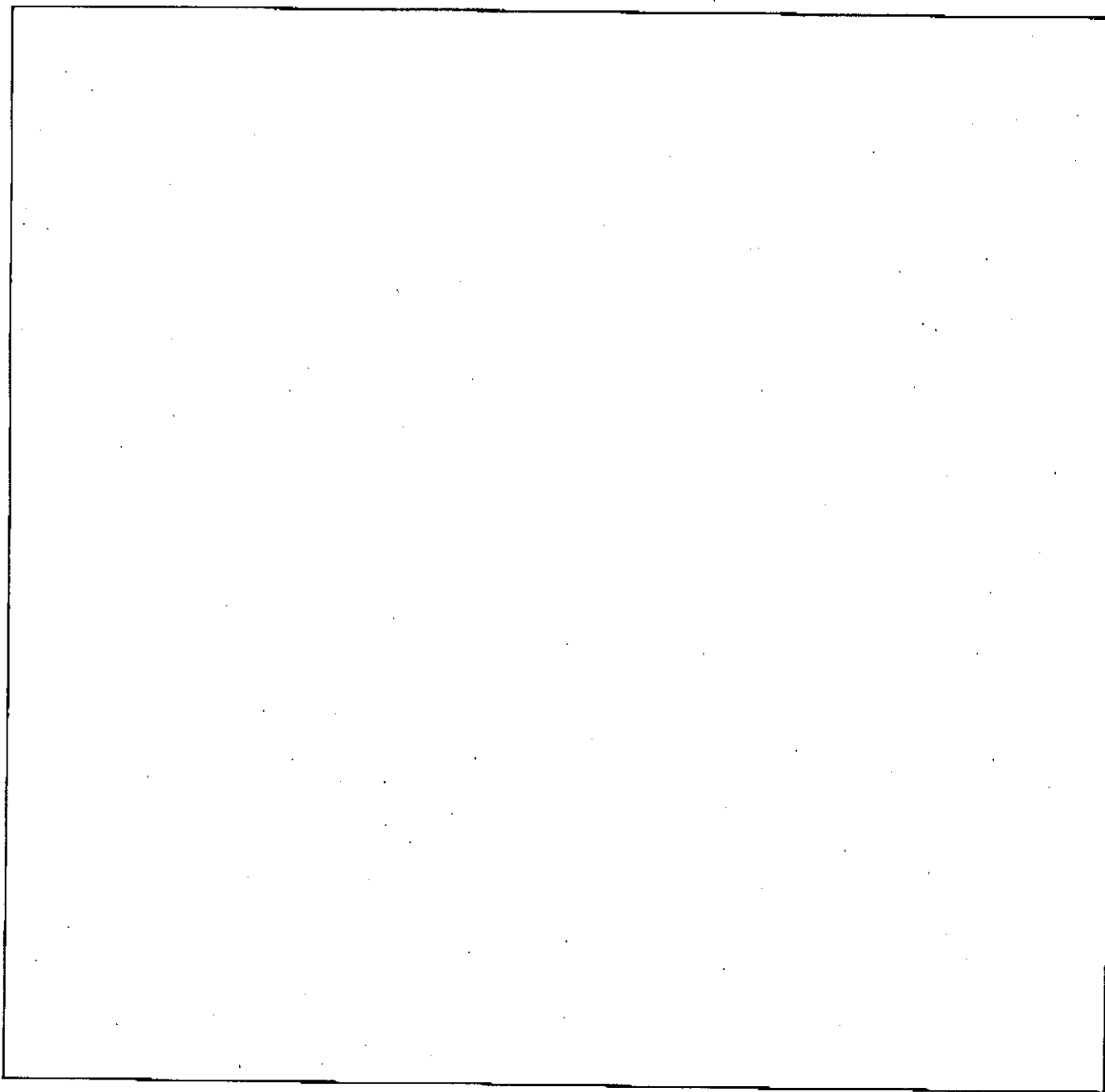
Also offered as ASTR 5400. Pre-requisite: ASTR 1010 or GEOL 1121 or GEOG 1113. Pre-requisite or Co-requisite: PHSC 1100 or PHYS 1111 or PHYS 2211. A study of the geology of the terrestrial planets and solid-surface moons, asteroids, comets and meteorites. The course will focus on comparative planetary geology, with emphasis on geologic processes on the surface (e.g. volcanism, impact cratering, tectonism, erosion, mass wasting, mineralogy and petrology), planetary interiors, and data collection methods such as remote sensing and image analysis.

### Justification (continue on back if necessary)

This graduate level lecture course, co-listed as GEOL 3400, is originally designed for Astronomy, Environmental Geosciences, or Physics majors as an elective in their major curricula, provides an overview of geological concepts, observations, and related astronomy of solid bodies in our solar system. It is also offered for graduate credit to returning teachers in Earth and Space Science. Through problems, discussions, exams and assignments, students will demonstrate their knowledge of broad geological concepts, how geologic processes depend on parameters which vary planet to planet, interactions of surfaces with varying atmospheres and solar illumination (insolation), the evolution of those surfaces, external and internal factors in that evolution, and reasoned estimates of future geological events. They will also study the mechanisms used to collect geological and geophysical data about the planets, and use and apply those techniques to a planetary surface. Graduate students will perform and document with a laboratory report and poster paper an experiment simulating some aspect of planetary geology, where conditions on two worlds are compared.

NOTE: ATTACH A COURSE SYLLABUS WITH COURSE OUTCOMES/ASSESSMENTS  
 AND GENERAL EDUCATION OUTCOMES/ASSESSMENTS

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Approvals:

Department Head(s) Edward E. Chatham Date 3/18/08

Dean(s)/Director(s) Linda Combs Date 3/24/08

College Executive Committee Linda Combs Date 3/27/08

Graduate Executive Committee \_\_\_\_\_ Date \_\_\_\_\_

Academic Committee \_\_\_\_\_ Date \_\_\_\_\_

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## Planetary Geology

GEOL 5400

FALL 2008

**Course Description:** A study of the geology of the terrestrial planets and solid-surfaces moons, asteroids, comets and meteorites. The course will focus on comparative planetary geology, with emphasis on geologic processes on the surface (e.g. volcanism, impact cratering, tectonism, erosion, mass wasting, mineralogy and petrology), planetary interiors, and data collection methods such as remote sensing and image analysis.

**Course Pre-requisites:** ASTR 1010 or GEOL 1121, or GEOG 1113 and Pre-Requisite or Co-Requisite: PHSC 1100 or PHYS 1111 or PHYS 2211. Students with a background in astronomy, solar system studies, and/or geology, geomorphology, or geophysics, with some physics, should be eligible. Please note that algebraic formulas and some calculus-based expressions will be used to illustrate, derive, and supplement physical concepts.

**Course objectives and justification:** This lecture course, designed for Astronomy, Environmental Geosciences, or Physics majors as an elective in their major curricula, or for returning students as enrichment in the multidisciplinary planetary science, provides an overview of geological concepts, observations, and related astronomy of solid bodies in our solar system. Through problems, discussions, exams, assignments and projects, students will demonstrate their knowledge of broad geological concepts, how geologic processes depend on parameters which vary planet to planet, interactions of surfaces with varying atmospheres and solar illumination (insolation), the evolution of those surfaces, external and internal factors in that evolution, and reasoned estimates of future geological events. They will also study the mechanisms used to collect geological and geophysical data about the planets, and use and apply those techniques to a planetary surface.

**Your instructor and guide:** Dr. Martha A. Leake

**Her headquarters and office hours:** Nevins Hall 2105: 11:00 - 12:00 noon Monday through Friday. It's safest to make an appointment. The Department of Physics, Astronomy and Geosciences is in Nevins Hall 2006. You may leave messages for Dr. Leake there.

**How to get in touch:** Office phone: 229-333-5756; Department office 229-333-5752; Home phone and message machine: 247-7932 (dire emergencies, etc.)

**Email:** [mleake@valdosta.edu](mailto:mleake@valdosta.edu) Please email me with any questions, comments or problems concerning your assignments and the course. I will respond as soon as possible.

**Course Numbers:** ASTR 5400.

**Credit Hours:** 3 quarter credit hours.

**Class meetings, lecture:** TBD; two 1h 15m sessions weekly.

**Our required text:** Exploring the Planets, by W. Kenneth Hamblin and Eric. H. Christiansen., Second Edition, 2003, Macmillan Publishers.

**Other optional textbooks and references are:** The New Solar System, 4<sup>th</sup> Ed, by Beatty, Petersen, and Chaiken (Eds); Planetary Landscapes, by Greeley; The Planetary System, by Morrison and Owen; Planetary Geology, by Short; Moons and Planets, by William Hartmann; Introduction to the Solar System, by McBride and Gilmore; Introduction to Planetary Geology, by Glass; Physics and Chemistry of the Solar System, by Lewis; and Planetary Science, by de Pater and Lissauer..

**Policies on Attendance:** Regular attendance at lectures is expected. Those who miss more than twenty percent of the lecture periods (nine periods) could receive a failing grade, as outlined in the current Bulletin (p. 76-77).

**Policy on Cheating:** Cheating will not be tolerated. Students who cheat in class will receive a failing grade in the course.

**Audit:** If regular enrollment permits and if I concur, the student may audit the class. Students should see me at the beginning of the semester to confirm audit status and determine my expectations of the auditor. "Students are not permitted to change from audit to credit or from credit to audit after the last day for course changes as specified in the official calendar" (Bulletin, p. 77). Auditors will not receive a letter grade for the course. Auditors who fail to meet attendance requirements (noted above) will be withdrawn from class.

**Withdrawal from the course:** "Students may withdraw from courses following the drop/add period until mid-term [March 1] by obtaining the instructor's signature on the withdrawal form available from their major department... Instructors may assign a "W" on the proof roll for students not attending class. However, it is the responsibility of the student to complete the withdrawal process.... Any student who discontinues class attendance after mid-term and does not officially withdraw may be assigned a grade of 'F'. Students receiving financial aid should be aware that withdrawal from courses may affect continued financial aid eligibility." (Bulletin, p.74-75)

**Special Services:** Students requiring classroom accommodations or modifications because of a documented disability should discuss this need with me at the beginning of the term. Students not registered with the Special Services Program should contact the Special Services Office in Nevins Hall Room 1115. The phone is 245-2498.

**The Final Exam:** The final is scheduled for Wednesday, May 2, 2007, from 5:00 – 7:00 p.m. Exam preparation day (no classes) is May 1. Grades will NOT be posted, but will be available by phone, one week after finals. Check with the Registrar's office for the official phone number (229-245-2200).

**Grading Policy:** Your grade in this course will depend on your performance in a number of areas--tests, problem sets, presentations, discussion, projects, assignments, and final exam. The points for each area of evaluation are listed on the next page.

**Grade Assessments:**

Three hour-long Tests, 50 points each	150	Problem sets	90
Presentation/Project/Poster	50	Quiz and Web Assignment	20
Final Exam	100	Discussion/Panel Discussions	20
Group Project	50	Journal	20
Grads: Experiment and write up	50	Experiment Presentation	20
<b>TOTAL POINTS POSSIBLE</b>	<b>570 POINTS</b>		

**Tests:** The 50-point, one-hour exams are a combination of multiple choice, short answer or short problems, and essay.

**Web Assignments:** Students in the class will discuss and determine the general topics of the two web assignments. These are meant to allow the student to investigate topics related to planetary geology. Although material from the web will be included in the assignment, you must submit a one-page summary of the material, in your own words.

**Journal:** This is a journal of information, references, thoughts, breaking news, ideas to explore, and feedback on teaching/learning. Entries should be made each class day, or at least weekly, and turned in the last week of class.

**Project/Presentation:** Select some aspect of planetary geology that intrigues you during this class. Present that information orally to the class and as a poster presentation. If the information is delivered as a power-point presentation, give the outline and an electronic copy to Dr. Leake.

**Panel Discussion:** topics: Extrasolar planets. The possibilities of life on other worlds. The exploration of Mars: How should it be conducted. The Exploration of Europa: What Next? Mining the asteroids and comets: Considerations, Difficulties, and Benefits. The connection between terrestrial and jovian planets. Why study the geology of the planets? Mission to the Moon and Mars: Planetary Geology. Faculty and students may be invited to the discussion.

**Group Project:** The class will work together to develop and explore a simulation of some geological process present on the planets. Students will do the background examination, develop the experiment, build it (or obtain equipment), run the experiment, analyze the data, and write the results. The students will develop a poster and write up the experiment in a journal style, with each student contributing to the effort in equal amounts. The poster presentation will be considered for the April Student Research Symposium.

**Graduate Student Experiment:** Graduate students will perform an experiment in comparative planetary geology, similar to that above, but, will investigate a different topic. They may form a group with another graduate student, or lead the investigation if undergraduates are involved. They will write up the experiment as a lab report, and also present it as a poster paper, suitable for the April Research Symposium.

**The Final Grade for the course:** The final grade will depend on the total number of points you collect in the class, as specified below. These same percentages can be used to estimate your grade anytime during the term. (Points below are rounded off.)

A	499 - 570 points	87.5% - 100%
B	428 - 498	75.0% - 87.5%
C	356 - 427	62.5% - 75.0%
D	285 - 355	50.0% - 62.5%
F	below 250	below 50%

**DON'T PANIC!** If you need help, please ask me. Drop by or make an appointment.

Above all, **develop good study habits.** Preview the material before class, take good notes during the lecture, read the assigned reading thoroughly after the lecture and write down any questions you have. Be sure to ask those questions the next day or during lab. Be sure to study the pictures – in most cases, that is all we have from the field.

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## Planetary Geology

GEOL 5400

FALL 2008

### COURSE TOPICS: Proposed Weekly Schedule

- I. Solar System Inventory and Definitions: The scope of our study.**
- Planetary Science: Comparative Planetology; Planetary Geology; Planetary Astronomy; Planetary Atmospheres; Terrestrial Planets; Jovian Planets; Moons and satellites; asteroids; comets; meteoroids; dust**
- Planetary Geology Fundamentals: Formation of the Elements**
- II. Fundamentals, continued: Origin of the Solar System—precursor to “geology”**
- Star Formation, Disk formation, protostar, condensation, accretion, planetesimal formation, protoplanets, giant planet formation, T-Tauri phase and sweep up, main sequence star with planets and debris: dynamics, chemical differentiation, formation time (ages of objects and events), differentiation of planets.**
- III. Tools of Planetary Geology**
- Remote Sensing: tools, techniques, analysis, ground truth**  
**Remote inspection from earth, fly-by, orbiter**  
**In situ inspections by lander, rover, human exploration**  
**Image analysis using GIS, NIH Image, ISIS**  
**Spectroscopy—remote geochemistry**
- IV. Planetary Morphologic Processes**
- Extra-terrestrial influences:** **Impact Cratering**  
**Solar Radiation and Insolation**  
**Accretional Heating**  
**Tidal Heating**  
**Electrical induction heating**
- V. Internal Processes:** **Heating by radioactive decay (radiogenic heat)**  
**Accretional Heating**  
**Tectonic processes**
- VI. Surface Processes:** **Erosion: wind, water, ice**  
**Mass Wasting: (gravity)**  
**Brecciation: in impacts and faulting**  
**Weathering**  
**Thermal alteration**  
**Hydrothermal alteration**
- VII. Surface Processes** **Volcanism**  
**Tectonism**

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- VIII. Planetary Interiors**  
 Core: Inner and outer core, if applicable  
 Mantle: Asthenosphere to lower mantle  
       Lithosphere  
 Crust: compositional, phase, and structure differences
- IX. Planetary Lithospheres:**  
 Igneous rocks and volcanism, metamorphic rocks and thermal, hydrothermal alteration, sedimentary rocks, clastic and non-clastic; rock cycle and connection with internal heat.  
 Laws of Relative Age  
 Laws of Absolution Age  
 Effects of the atmosphere and hydrosphere on a planet's surface
- X. Meteorites and Asteroids**  
 Samples of solar system debris on Earth  
 Correlation to minor solar system objects and planets  
 Age, chemistry and dynamics of early to present to future solar system  
 Related objects: Comets and meteor showers, meteoroids, KBOs, etc.  
 Planetesimal building blocks
- XI. The Moon: our first extraterrestrial geologic study**  
 Earth-based observations of the lunar surface  
       Stratigraphy, time stratigraphy, relative age  
       Crater density and cumulative counts  
       Spectroscopic studies of mineralogy  
       Time studies of changes  
 Lunar exploration: determine ground truth for calibration of age, chemistry  
       Satellite  
       Landers and impactors.  
       Rovers  
       Apollo Program  
       Clementine, Prospector, SMART, and others  
 Geologic Mapping of the Lunar Surface
- XII. Mercury: Comparisons to the Moon**  
 Venus: Comparisons to Earth
- XIII. Mars: comparisons to Earth, Moon and Venus**  
 Martian Exploration Rovers: ground truth and more questions
- XIV. Satellites of the Giant Planets:**  
 Io and volcanism  
 Europa and Ganymede: water in lithosphere? rocky core?  
 Callisto: comparison to Moon  
 Enceladus: another active world with subsurface water  
 Titan: surface processes on a primitive object, liquid methane  
 Small worlds: still active if tidally heated: Miranda, Triton, and others
- XV. The future of the solar system**  
 Planetary Geology  
 What does Earth tell us about them?  
 What do they tell us about Earth?  
 Which processes continue and which end?

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