

GEO 3510: Earth Resources Science Elective

Instructor: **Jose F. Longoria**
professor of geology

<http://www.fiu.edu/~longoria>

Syllabus

Printable version of the Syllabus

[Procedure to use the e-mail in this course](#)

Course Organization	Essays	Course Format
Course Policies		Prerequisites
Textbook		Course Plan
E-Mail Directory	Data Base	Participation Forum

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Have you visited all the sections in this syllabus? [YES](#) [NO](#)

Course Format: This is an on-line, Self-Paced mode course, [visit this site to learn about the self paced format](#). Three equally components are essential for a good performance: twelve short-answer assignments <list of unit abilities> (40%); (2) three written five- to seven- pages topic essays (50%); and (3) weekly posting of news in the Participation Forum (10%). The course is [divided into sections](#), corresponding to natural groupings of the topics covered in class. These divisions correspond to the presentation of the topics in the textbook. The course is [divided into sections](#), corresponding to natural groupings of the topics covered in class. These divisions correspond to the presentation of the topics in the textbook. [Every section will have an assignment](#) as well as a [written essay](#). Assignments should be submitted through the Internet at specified dates; they count 30 percent towards the final grade. [Essays](#) are to be submitted at scheduled dates, they count 50 percent towards the final grade.

Incompletes and extensions are not given in this course. Not submitted assignments and essays are given the grade of 0. There is a penalty of 5 points for every week of late submission of assignments and essays.

The course requires involvement, independent thinking, and a lot of time. This is a class in which you have to work hard in; but, it is also one you should enjoy and derive motivation from.

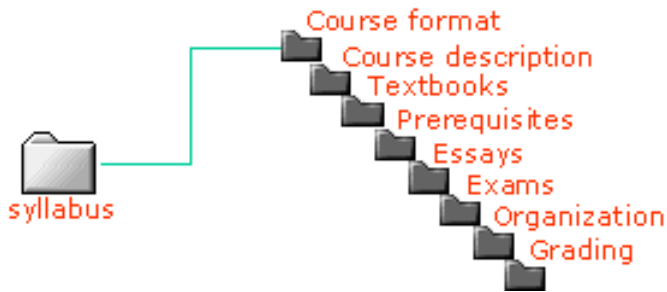
Students are expected to:

-  Work at full pace.
-  Do the reading assignments.

Do all the www assignments.

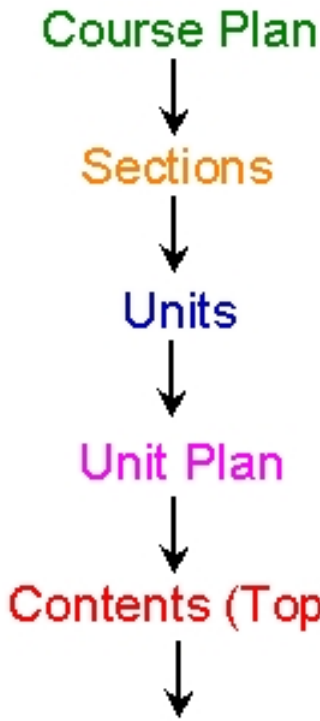
You should feel free to e-mail me at any time, if you have any questions about something you do not understand. You should plan to ask questions clarifying any point at least three days in advance. Please do not wait until the day of the work is due to ask questions!

Your are required to review the list of DO'S and DON'TS for this course.



Course Description: The course is structured according to the precepts of andragogy (see flow diagram) to help students maximize learning and mastering the subjects in each unit. The course contents is divided into large Sections, corresponding to natural groupings according to their occurrence in nature and their triggering mechanisms; for example, (1) processes and phenomena occurring in the hard surface shell of the Earth (the Lithosphere), (2) those that involve the water envelope of the planet, (3) occurring in the atmosphere, (4) disasters that affect the biota (the biosphere), (5) phenomena that result from

direct human activities, and (6) those that are triggered by phenomena or objects from out side planet Earth (extraterrestrial). Sections are divided internally into Units, representing individualized natural disasters that result from particular geological processes; for example, earthquakes, volcanoes and landslides are the units included in the section covering disasters involving the lithosphere.



Each unit contains a Unit Plan which is made of three components:

- (1) **Contents** (a list of topics to be studied). This component of the unit plan corresponds to the question of WHAT to study.
- (2) **Activities** (specific readings and web site links -browsing- you must do). An often worry that students have is: *How many levels of links should I do?* A very close indication that you have mastered the subject covered in the unit is when you are able to address the items listed in the abilities sections of each unit. So this component corresponds to the question of HOW to study in andragogy.
- (3) **Abilities** (a list of learning competencies that were acquired through the activities). This component can be viewed as a study guide and a preparation for the evaluation. They should guide you into how well prepared you are. The abilities component of the unit plan corresponds to the question of FOR WHAT purpose in andragogy.

[Click here to View an example of Unit \(Chapter\) Plan](#)

Activities || Abilities Below is the course outline, you must submit the [Acknowledging Syllabus Form](#) to receive the user name and password to access the website for the Course Plan containing a plan for each section.

Prerequisites:

Geology Prerequisites: This course does not have any geology prerequisites; however, you should be aware of the fact that Natural Disasters is a three thousand level class and a high degree of involvement is expected. Critical and independent thinking is also required.

Computer Literacy: Students are expected to be proficient in the use of computers including word processing, e-mail, posting attachments, and to have experience in browsing the Internet. Students need to be comfortable using a web browser, for students with limited web browsing experience, a tutorial on the use of the two most popular web browsers is provided as an activity for the first week of the semester; however, students are responsible to fulfill this deficiency.

Student Learning Agreement (SLA): Students are required to set their goals and discuss desired outcomes. You are required to submit a narrative (an electronic questionnaire) of your expectations in this class within the first two weeks of classes.

Course Policies:

[Exams](#) [Grading](#) [Cheating](#) [Office Hours](#) [General Provisions](#)

Exams: This course does not make use of exams or tests for the evaluations of students rather students' performance in the course is determined by the individual accomplishments and performance based on abilities acquired and research essays. The course is divided into sections, corresponding to natural groupings of the topics covered in class. These divisions also correspond to the presentation of the topics in the textbook. Every unit contains an ASSIGNMENT consisting of a set of abilities (a list of competencies) that the student should have acquired by doing the specified activities. Performance in the abilities will count 40 percent towards the final grade. Assignments are regarded as individual effort and are to be done individually. Assignments should be submitted electronically using the form provided at specified dates and are expected to be in depth (detailed answers); they should be submitted at any time but not later than the dates specified in the syllabus. Late submission of the abilities will incur in a penalty of reducing 5 points of the grade for every week being late. An example of the abilities is given here, and it is highly recommended that you view it as soon as possible.

Assignments and essays should be submitted electronically. DON'T send your work more than one time. DO check the classroll in the data base page of the website periodically. Grades will be posted within the following 8-10 days. Acknowledge of receipt of your work will be posted immediately and mark with an X in the corresponding column. The X will be replaced with the grade as soon as available. It is your responsibility to check with me if you did not receive it.

Work not completed is assigned the grade of 0. Any student missing a deadline must contact me the day before to explain the reason for the absence; verification will be required. You can always reach me by e-mail. If you do not contact me before the day before the due date, you will not be eligible for an extension.

Grades will be posted in the grade roll as soon as available (usually the following week).

Incompletes and extensions are not given in this course.

Also you are required to visit this site [DO's and DON'Ts](#)

Assignments (List of Abilities) are expected by the following dates and times:

Assignment	Due Date
Narrative	Immediately
Section 1	Set 30
Section 2	Nov 11
Section 3	Dec 09

NOTE:

Missing work is considered as not submitted.

Grading: Final grade in these courses results from the average of: (1) grades from twelve short-answer assignments <list of unit abilities> (40%); (2) three written five- to seven- pages topic essays (50%); and (3) weekly posting of news in the Participation Forum (10%).. All the work in this course should be submitted electronically through the Internet.

My grading policy is as follows:

96-100	A
90-95	A-
86-89	B+
83-85	B
80-82	B-
76-79	C+
73-75	C
70-72	C-
66-69	D+
63-65	D
60-62	D-
<60	F

NOTE: Assignments (list of unit abilities) and essays should be submitted electronically. DON'T send your work more than one time. DO check the [classroll in the data base page of the website](#) periodically. Grades will be posted within the following 8-10 days. Acknowledge of receipt of your work will be posted immediately and mark with an X in the corresponding column. The X will be replaced with the grade as soon as available. It is your responsibility to check with me if you did not receive it.

NO TAPE RECORDERS - NO CELLULAR PHONES - NO BEEPERS IN CLASS

Statement of Understanding between Professor and Student

Every student must respect the right of all to have an equitable opportunity to learn and honestly demonstrate the quality of their learning. Therefore, all students must adhere to a standard of academic conduct, demonstrating respect for themselves, their fellow students, and the educational mission of the University. As a student in the College of Business taking this class:

I will not represent someone else's work as my own

I will not cheat, nor will I aid in another's cheating

I will be honest in my academic endeavors

I understand that if I am found responsible for academic misconduct, I will be subject to the academic misconduct procedures and sanctions as outlined in the Student Handbook

Failure to adhere to the guidelines stated above may result in one of the following:

Expulsion: Permanent separation of the student from the University, preventing readmission to the institution. This sanction shall be recorded on the student's transcript.

Suspension: Temporary separation of the student from the University for a specific period of time.

By taking this online course I promise to adhere to FIU's Student Code of Academic Integrity. For details on the policy and procedure go to [ACADEMIC MISCONDUCT](#).

Academic integrity is highly valued at FIU: CHEATING WILL NOT BE TOLERATED!!! Evaluation of students is based on individual (not group) efforts. You are encouraged to work in small groups (up to three people) for exams preparation but your exams are based on individual effort, misconduct during exams will not be tolerated. Students caught cheating or exchanging materials during an exam will be removed from the class and given an "F" for the course.

Office Hours and Appointments

Office: PC321

Office hours: T & Th 1:00 to 3:00 PM; W 1:00 to 3:00 PM or by appointment

The best way to get in touch with me is by e-mail: longoria@fiu.edu You are required to obtain an e-mail account from University Computer Services. Students are responsible for checking their e-mail before coming to class. I will post class notices and assessment results through the e-mail.

General Requirements

The following stipulations will apply during the course:

The World Wide Web (WWW) will be used extensively throughout this course, all the information and materials related to the course will be transmitted through the Internet and communication with me will be through e-mail.

All students in GEO 3510 are required to:

- 1.- Open an e-mail account with FIU (provided free to all FIU students, your FIU account is setup by computer services and I will use this account for all the correspondence in this course, please check the e-mail/chat page to view your FIU e-mail address) and to have access to an Internet provider, via Netscape or other browser.
- 2.- Students are responsible for making sure that their accounts are setup properly to be able to send/receive e-mail.
- 3.- Read in advance the corresponding chapter(s) for each session.
- 4.- Check in news media and post in the Participation Forum news on local, regional, continental or worldwide natural disasters.

5.- Submit work on time. No extra time will be given for activities.

6.- Visit the web sites assigned for each topic.

Textbooks:

Required text to be used during the course:

Resources of the Earth: Origin, Use, and Environmental Impact, by J.R. Craig, D.J.Vaughan; and B. J. Skinner (3rd edition).

Reference book to be used to fulfill deficiencies:

Understanding Earth by Frank Press and Raymond Siever (2nd. Edition).

Weekly Schedule: GEO-3519 EARTH RESOURCES

Instructor: Prof. LONGORIA

Week 1, 8/30-9/04:

Introduction || Course Setup || Head count

[An example of Unit \(Chapter\) organization](#)

Week 2, 9/06-9/11:

Chapter 1: Minerals: The Foundations of Society

Week 3, 9/13-9/18:

Chapter 2: The Origins of Mineral Resources

Week 4, 9/19-9/25:

Chapter 3: Earth Resources Through History

Week 5, 9/26-10/02:

Chapter 4: Environmental Impacts of Resources Exploitation and Use

September 30: Last opportunity to submit Abilities Chapters 1 through 4

Week 6, 10/03-10/09

Chapter 5: Energy from Fossil Fuels

Week 7, 10/10-10/16

Chapter 6: Energy for the Future - Nuclear Power and Other Possible Alternatives

Week 8, 10/17-10/23:

Chapter 7: Abundant Metals

Week 9, 10/24-10/30:

Chapter 8: The Geochemically Scarce Metals

**Week 10, 10/31-11/06:
no classes - field conference**

**Week 11, 11/07-11/13:
Chapter 9: Fertilizer and Chemical Minerals**

Novemebr 11: Last opportunity to submit Abilities Chapters 5 through 9

**Week 12, 11/14-11/20:
Chapter 10: Building Materials and Other Industrial Minerals**

**Week 13, 11/21-11/27:
Chapter 11: Water as a Resource**

**Week 14, 11/28-12/04:
Chapter 12: Soil as a Resource**

**Week 15, 12/05-12/09:
Chapter 13: Future Resources**

December 9: Last opportunity to submit Abilities Chapters 10 through 13

GEO 3510: List of Topics for Essays



Select the topics for your essays from the list below.

Deadline for the submission of Essays are:

First Essay; October 23

Second Essay, November 13

Third Essay, December 4

Essay	Topics
1	The Grreenhouse Effect
2	Acid Rain
3	Placer Deposits
4	The environmental impact of the automovil
5	The development and distribution of manganese nodules
6	The uses of silver
7	The modern fertilizer industry
8	Asbestos: pros and cons

[Review the guidelines for preparing essays](#) || [Back to Course Content](#) || [Back to Essay Submittal](#)

Essays:

READ THE GUIDELINES FOR THE PREPARATION OF ESSAYS BEFORE WRITING AN ESSAY

Essays topics for this semester are [shown here](#)

Essays should follow the format outlined below, and should be submitted by the due date. No delays will be allowed. They should be sent electronically by Internet e-mail. They should be typed and formatted according to the instructions below. All the illustrations should be included in the text. See instructions for [submittal of essays](#)

GUIDELINES FOR THE PREPARATION OF ESSAYS

Essay should be focused on the [designated topics](#). Topic essays can be viewed as technical writing exercises, that is, you should be precise and to the point. Illustrations are a must in your essay. The overall contents of the essay should be consistent, there is not a maximum page limit to the length of each essay, but it is important that you address all the five fundamental issues according to the [organizational scheme given below](#). Illustrations and visual materials should be included (inserted) in the written text, each illustration should be identified with a number, a figure caption or explanation should be given for all the illustrations included as well as a complete reference to the source. All the sources consulted should be cited in the text and listed at the end of the essay under Reference Cited. References listed should be complete, including author(s), title of the work, editor, publishing company, number of pages, and the location of the source, for example web site URL, library call number, etc. A title page should include the title of the paper, your full name, ss#, course and class #. This page should be followed by a table of contents under a separate page. Both title page and index of contents are expected for each essay submitted.

As stated in the course syllabus: Essays are to be prepared from the materials covered in textbook chapters, www browsing, video tapes, and journals. They will count 50 % towards your final grade. So you should consider presenting a good essay. Essays can be submitted at any time during the semester; however, there is a time limit to submit them, no extra time or extension will be allowed. Essays are to be typed using fonts 10 to 12, single-spaced, with no page limit per essay.

Example of Essay Organization

- ▶ Title Page (first page)
 - ▶ Index of Contents (second page)
 - ▶ Introduction (starts pagination)
 - ▶ [Synoptic Description of the Topic](#)
 - ▶ [Causes of the Resource](#)
 - ▶ [Occurrence of the Resource or Issue](#)
 - ▶ [Social and Economic Impact of the Resource](#)
 - ▶ [Personal Suggestions for Preservation and Recovery of the Resource Depletion](#)
 - ▶ [References Cited](#)
 - ▶ [An example from previous semesters.](#)
-

Essays must address the following issues: (These headings must be included in each essay).

1.- Synoptic description of the topic: Describe the specific disaster, DO NOT spend time and space giving generalities on the topic. For example, in preparing the Izmit Earthquake essay do not include general aspects about earthquakes, but go directly into the situation of the earthquake in Izmit. The same applies to all the essays. To address this issue, you should think as if you were asked the question of what happen in that particular case. You need to thoroughly describe the issue of the topic. Next, you should give any supporting statements that would help to enhance the description. But keep in mind that you should be as detailed as possible to give a complete description of that particular disaster. Make sure that you do not mix description with causes of the disaster.

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2.- Causes of the Resource: To address this point think as if you were answering the questions: "Why does the resource/issue happen?" and "What originates that particular resource?" These questions need to be focused on the particular resource or issue. You should address this point from general to specific. In some cases general means global, then a regional cause and finally you should include one or two local origins. Pay attention to course activities and discussions presented in the assigned URL's links, as often information and discussion in them are directly related to this issue.

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3.- Occurrence of the Resource or Issue: This point has to do with the question: Where does the resource/Issue occur? Usually this question needs to be answered from general (planet wide) to specific, or in other words from global occurrences to regional (continent wide to local). Note that this is a geography (locality) issue. You should also incorporate course material given in the activities of each unit and the information provided by specific cases. This is particularly important in citing occurrences in different localities, so do not hesitate to incorporate additional material you have found in you own browsing as well as other references.

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4.- Social and Economic Impact of the Resource: This point should also be addressed from general

(or global) views to specific, citing several examples such as those given in the activities section of each unit. It is likely that some links may contain data related to this issue, for example statistics, amount of damage, etc.

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5.- Personal Suggestions for Preservation and Recovery of the Resource Depletion: It is likely that several of the web links will present issues related to this topic. You should be able to take some ideas from those sites and elaborate your own suggestions on the way in which this type of disaster can be prevented and how the public can recover from that particular disaster.

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In summary:

- 1.- The essays (a total of three) are worth 50% of your final grade, and you should work accordingly.
- 2.- There is no page limit, however, I would say that you will need about 5 to 10 typed pages (without illustrations) to do justice to the topic. Nonetheless, you may squeeze a good essay in five pages. Just think that: a good essay = a good grade.
- 3.- Essays are to be presented at you own pace; however, they are due at defined deadlines (click here to view [the deadline for the submission of Essays](#)). NO EXTENSIONS ARE GIVEN. Essays not submitted will receive the grade of 0 (Zero).
- 4.- Essays will be graded on presentation (20%), [organization](#) (20%), and contents (60%). I expect some originality and I highly discourage lifting verbatim information directly from sources.

Additional information on the topics assigned for the essays can be gather at you local public library, where you can also find an extensive collection of video tapes on specific disasters. A list of journals and magazines commonly discussion natural disasters include:

National Geographic
Earth
Discovery
Science Spectra
Popular Science
American Scientific
Science
Nature

GENERAL INSTRUCTIONS: To help me quickly and accurately evaluate your essays, I ask you to follow the few rules outlined below.

Essays must be written in Microsoft Word (only): Make the page setup of your Microsoft Word processor letter size (margins: 1 inch top and bottom; 1.0 inch left and right), using Arial 10 points or a similar sans-serif font (e.g. Arial or Helvetica), all text must be justified (DO NOT hyphenate words); text should be formatted to line space at exactly 10 pt., indent 3 spaces the first line of each paragraph.

The first page of your essay should be its title page, which should be in bold, Upper and Lower Case, and Flush Left with the Margin. After the title skip several lines and type your name first, followed below by your SS#. Capitalize the LAST NAME, FIRST NAME and MIDDLE NAME or INITIAL.

Next type the course and reference #. Suggestion: You can be creative with the title page inserting a color image between the title and your name lines.

Start the text of your essay in a separate page. You can start with an introduction or introductory paragraph of your own but after this short introduction you must use the headings given in the guidelines for preparing essays. Indent 3 spaces the first line of each paragraph.

ONLY ELECTRONIC SUBMITTAL IS ALLOWED. All essays should be sent to Prof. Jose F. Longoria, clearly indicating the sender's e-mail address. You should be notified of the receipt of the essay, you should contact me if you did not receive a receipt of the essay notification within the following three days.

Essays should be submitted in a Microsoft Word files as attachments of an e-mail following this procedure:

After writing your essay according to the specifications given above, save it as a Microsoft Word .doc file.

GO to your e-mail program and send it as an attachment of your e-mail message (**only Microsoft Word .doc files will be accepted**). In the subject line of your e-mail write only the reference number of your course. In the body of your message write a short message identify yourself including your name, ss#, course and reference # as well as indicate that you are submitting an essay. Make sure that the attached file is written in Microsoft Word and identify it as a .doc file. This method of submittal is preferred because it will preserve all your formatting including bold, italics and other special characters. Visual materials (illustrations, charts, photos, etc.) can be incorporated in the text as .bmp, .jpg or .gif files or sent separately as individual attachment files.

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



Illustrations:

All **visual materials** (illustrations, pictures, etc.) should be sent as .bmp, .jpg or .gif files. Only video clips can be attached separately. Always keep a copy of your essays and visual materials.

Procedure for the use of e-mail in this course:

- 1.- You are required to use your FIU e-mail address or the WebCT mail if you are taking a fully online section of this course, for all the correspondence in this course. The hybrid section visit the e-mail page of the website to see your e-mail address. In case of missing your password visit this site <http://webmail.fiu.edu>. For the fully online section get your WebCT e-mail address.
- 2.- You must place the class number of your course (for example 15940, 11106, 16644) in the subject line of ALL your e-mail to me. Do not write anything else on this line.
- 3.- In all correspondence with me identify yourself, including on the first line of text of your message your full name, ss#, and class number (e.g., Pepe Longoria, 000-00-0000, Gly3034-01, 2123). I DON'T reply anonymous or inadequately identified e-mails. See diagram below:

File Edit View Insert Format Tools Actions Help Type a question for t

Reply Reply to All Forward       

From: Jose F. Longoria [longoria@fiu.edu] Sent: Sat 6/12/2004 4:55 PM
 To: 'Jose F. Longoria'
 Cc:
 Subject: 5810

Jose F. Longoria, 0000-11-0911, GLY3034-SP, 5810

Participation Forum Entry: With hurricane season among us, I found this list on FEMA's website. It helps us to prepare in the event a hurricane should hit us.
<http://www.fema.gov/areyouready/hurricanes.shtm>

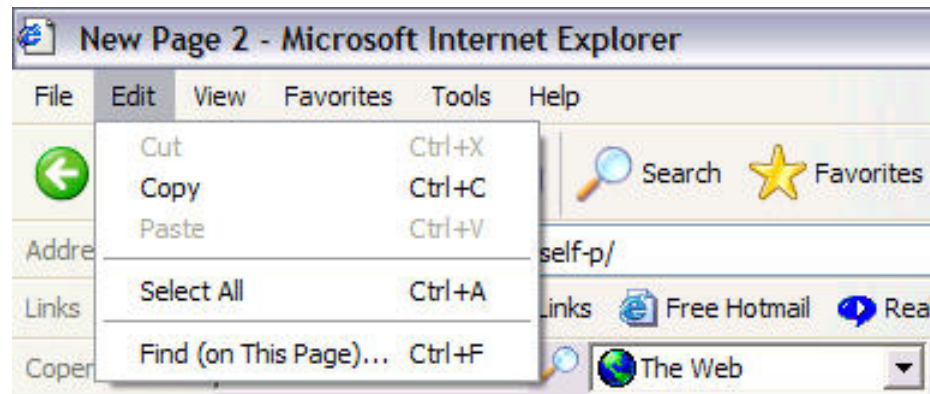
Jose (Pepe) Longoria, Ph.D.
 Professor of Earth Sciences
 Florida International University
<http://www.fiu.edu/~longoria/self-p>

- 4.- Keep a copy of all your correspondence to me, you may be asked to resubmit.
- 5.- Do not resubmit any work unless you are asked to.
- 6.- I will not be responsible for e-mail sent without complying with this procedure.

Participation Forum: Review the rules before sending your entry

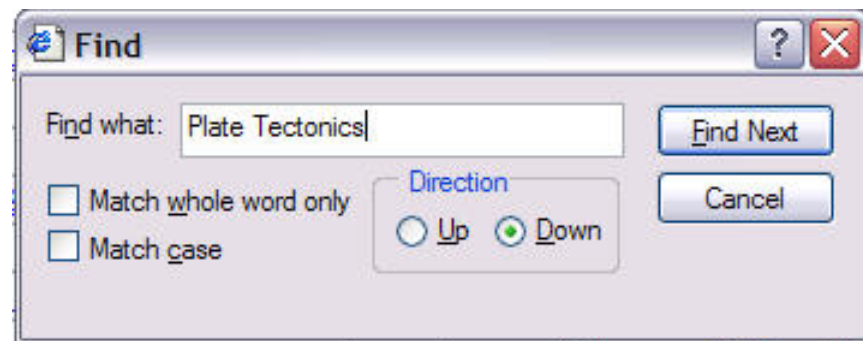
- Ten percent of your final grade in this course will be derived from your weekly postings in the Participation Forum. Late submission of weekly entries will count against your grade.
- The Participation Forum should be viewed as a way to expand your knowledge beyond the Course Plan. You can choose the topics and sites that best suit your scientific curiosity but corresponding to the topic of the unit. Thus giving you an opportunity to expand your horizons in Earth Sciences.
- Entries for the Participation Forum consist of a website containing materials relevant to any of the topics in the Course Contents that you have found in searching the WWW. Sites on any aspect of Natural and Human Induced Disasters (geology, biology, chemistry, physics) are considered; however, only sites by government, universities, scientific associations, research organizations; exceptionally excellent site operated by private corporations or individuals are included. News sites are not considered entries for the PF but can be submitted for extra credit or group discussion in this class. News from web news channels such as cnn, pbs, national geographic, or discovery are not allowed since those sites have a short time existence.
- You should submit your entries by e-mail to the Instructor. You only need to send the URL (Internet address) of the site; and a short narrative of the site highlighting the relevant points; however, must follow the instructions for the use of e-mail in this class.

- Before submitting your entry, visit the Participation Forum. Review the posting by other students in the class since you are not allowed to post the same entry. Website used in your essays and in any of the units of your course should not be used as your entries for the PF, you will not receive credit for those.
- To check if your entry has already been submitted do the following: Using Internet Explorer open the Participation Forum page. Locate the cursor on the Participation Forum frame (the lower right frame), then, go to Edit (Find on This Page),



The Find drop menu will appear.

In the Find What box write the key words of the URL of the page you are interested in submitting to the PF.



If the topic or entry is already in the PF you should go back to your search and find another entry, do the same procedure until you find one that is not posted.

- I will post your entry in the Participation Forum after reviewing it. Also I will rate and link your entry on the Participation Forum page of the Data Base for you class. I will try to do so within the next week after the receipt of your posting. **DO NOT RESUBMIT ANY ENTRY UNLESS I ASK YOU TO DO SO!** Keep in mind that entries are rated (from one to three stars) according to the scientific or technical significance of the entry, the more triple stars you receive the better.

[Click here to view an example of PR entry](#)