GEOS 120/121: Dynamic Earth
Spring 2009 syllabus

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MWF 9:00pm - 9:50pm
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office hours: MWF 10:00–11:30 am and 3:00–4:30 pm, every other Wed., no pm office hours
Supplemental Instructor: Nicole Schoolmeesters: meeting times to be announced

Read this carefully and completely! This syllabus is our contract for the course. By remaining enrolled in this course you agree to the terms and policies put forth in it.

Required Textbook:

Earth: Portrait of a Planet
Third Edition
Stephen Marshak, University of Illinois, Urbana-Champaign

Packaged with a Geotours Handbook

Student site: http://www.wwnorton.com/college/geo/earth3/

Desire to Learn:

Most of the course materials (both lecture and lab) will be housed on Desire to Learn (D2L). Please get in the habit of visiting the D2L site often. I will make general announcements, post material you will need to print out and bring to class, some online quizzes, and announce for required reading and assignment deadlines. I will only email announcements if it is urgent or time sensitive. You will receive only an email to your university account with a subject line "visit D2L" and no body. Additionally, your grades will be posted there only. You are responsible to make sure the grade posted is the grade you got on what was handed back. When assignments are due on D2L, do not wait until the last minute as sometimes D2L is down. Printed copies will not be accepted.

D2L is currently not set up to figure your average or final course grades, so disregard all totals or average grade columns.

Course description:

The following is the course description from the course catalogue:

An introduction to geologic principles and the processes shaping planet Earth. Composition and distribution of earth materials; examination of internal processes and their relationship to the distribution of continents over time; surficial processes and environmental problems.

This class is an introduction to the materials that make up our planet, the features present on the surface, and most importantly the processes that are responsible for producing them. Our Earth is not a static planet and the processes at work shaping it are the result of a dynamic system that involves interaction between the Earth's surface and subsurface with the atmosphere, hydrosphere, and biosphere. The goal of this class is to gain a better understanding of the processes at work and the interaction of the parts in this dynamic system. It is not the intention of this class for you to just memorize a series of facts. Although there will be a significant amount of content you will be required to learn, it is my intention to give you experience applying the scientific method to geologic problems and for you to learn how the interactions within the parts of the system occur so you can make reasonable hypothesis beyond what is covered in the course, with an overarching goal of helping you become an informed and thoughtful citizen.
University Studies
This course qualifies as a University Studies course satisfying the outcomes of the Natural Science Category (including the laboratory requirement if GEOS 120). The University Studies outcomes as stated in the course catalogue areas follows.

The purpose of the Natural Science requirement in the University Studies program is to provide students with the tools to understand and be able to apply the methods by which scientific inquiry increases our understanding of the natural world.

These courses must include requirements and learning activities that promote students' abilities to...

- understand how scientists approach and solve problems in the natural sciences;
- apply those methods to solve problems that arise in the natural sciences;
- use inductive reasoning, mathematics, or statistics to solve problems in natural science;
- engage in independent and collaborative learning;
- identify, find, and use the tools of information science as it relates to natural science;
- critically evaluate both source and content of scientific information; and
- recognize and correct scientific misconceptions.

Courses that satisfy the laboratory requirement (if GEOS 120) in the Natural Sciences will additionally provide students the opportunity to practice scientific inquiry through hands-on investigations and to analyze and report the results of those investigations.

Course format
This class will meet three times a week for lecture and other activities. A projected schedule of topics and associated reading will be posted and updated on D2L. Changes to this schedule are likely, so please watch D2L for updates. These meeting times will include lectures, class discussions, announced or unannounced quizzes, and other activities that reinforce the content in the book. It is strongly recommended that you skim the book before we cover the topic. For consistency, most figures used in lecture will be from your book. These figures will be augmented by sketches drawn on the board, so a notebook will be necessary in class. It is often difficult to judge whether a large class understands the material, so please interrupt me with questions if you do not understand what I am discussing.

This course has a Supplemental Instructor. I strongly recommend you take advantage of this opportunity as students who participate typically receive ~10% better grades on average than those who do not. If you choose not to take advantage of the S.I., I highly recommend you assemble a study group. Learning through peer teaching is extremely effective.

The textbook's website (http://www.wwnorton.com/college/geo/earth3/) has material to assist you in your understanding of the textbook content. I recommend looking at the “guide to reading” before you read the chapter and again after you read to make sure you understand the concepts. I also recommend taking notes while you are reading (Highlighting is a waste of your time—it does nothing to help learn the material). When you think you are prepared, do the “diagnostic quiz”. For each chapter we cover, I will require you take the quiz and submit your grades to me online. I will post on D2L the minimum number of questions I require you answer and the deadline for when I will be retrieving the grades. You are free to take these as often as you like and I suggest you retake them when studying for your exams. You are allowed to miss one online quiz without any impact on your quiz grade. Your score on these will combine to 10% of your final grade. No late quizzes will be accepted!
Also accompanying your text is a "Geotours" workbook. From time to time during the semester I will assign 3–5 of these as homework assignments. You will also be required to do at least 2 more of your own choosing, with additional "Geotour" problems serving as extra credit. These will be included with your "misc. assignments" category of your grade. The weighting on this is dependent on whether or not you are taking the lab (see below).

There will be four one hour in-class exams and a two part exam during the final period. This 2-part exam will consist of one hour exam V, covering the material post exam IV, and a cumulative final exam. Your grade on the cumulative final will substitute for your lowest grade from Exams I–V. Exams will cover material from the book and from lecture, with an emphasis on content covered in lecture. Specifics for exam dates and policies are discussed below.

**Exam Policies**

Exams are announced well in advance and students are obliged to take exams at the scheduled times. The obvious reason for the exam policy is fairness to the entire class. **The final exam is scheduled by the university and cannot be taken at any other time.** If you miss an exam, you are expected to take a make-up as soon as possible. If your missed exam is due to an unexcused absence, a penalty of 10% reduction in grade per class day after the exam was scheduled. If you miss an exam for an excusable reason, arrangements should be made by contacting the instructor before the scheduled exam date. If you miss 1 exam- you get a zero for that exam. Cumulative final cannot replace a missed exam. Miss two exams-you get an incomplete for the course. Obviously, if the absence is due to an unforeseen emergency or accident, arrangements to take the exam must be made on the day following the incident. If arrangements are not made in accordance to this policy the penalty described for the unexcused absence takes effect. I reserve the right to administer a make-up exam in any format, including an hour-long oral exam, in order to assess your understanding of the material covered on the exam or quiz you missed. **All decision with respect to this policy are ultimately subject to my discretion.**

Bring a *scantron answer sheet, 2 sharp pencils, and an erasure to the each exam!* I will not supply these items. We will use *form # 882-es.* More detailed exam instructions will be discussed before the first exam and posted on D2L.

**Cheating:**

In most circumstances I encourage working in pairs or groups on assignments, however, there will be assignments (and of course during exams) where I make it explicit that you must work alone, this includes during exams.

My cheating policy follows:

> **Cheating during an exam or quiz, plagiarism (which includes any instance where a person presents someone else’s work or ideas as their own) and any form of dishonesty will result in the minimum of a zero on that exam or assignment and reporting of the event to university authorities. This may well lead to a failure for the course and possibly expulsion from the university. I take the subject of cheating very seriously and have little patience for dishonest people.**

**To be clear, any communication between you and any human being (except me) by the use of cell phones, instant messaging, text messaging, verbal or non-verbal communication, coughing, eye-blinking or smoke signals is considered cheating.**
Exam Dates and grade calculation
(A 1-week notice will be given if an exam date needs to be changed)

<table>
<thead>
<tr>
<th>Item</th>
<th>Date</th>
<th>Material covered</th>
<th>Lecture only</th>
<th>Lecture w/lab</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam I</td>
<td>2/4/2009</td>
<td>Chapters 1-4</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Exam II</td>
<td>2/27/2009</td>
<td>Chapters 5-8</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Exam III</td>
<td>3/30/2009</td>
<td>Chapters 9, 10, &amp; 11</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Exam IV</td>
<td>4/17/2009</td>
<td>Chapters 16, 17, &amp; 19</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Exam V</td>
<td>5/5/2009</td>
<td>Chapters 18, 21, &amp; 22</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Final exam</td>
<td>5/5/2009</td>
<td>Cumulative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Chapter Quizzes</td>
<td>Dates TBA</td>
<td>TBA</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Misc. Homework or in-class assignments</td>
<td>Dates TBA</td>
<td>TBA</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>Lab assignments</td>
<td></td>
<td></td>
<td></td>
<td>25%</td>
</tr>
</tbody>
</table>

The final exam is scheduled by the university and cannot be taken at any other time.

All policies and plans related to the lab portion of the class will be covered on a separate syllabus and discussed during the first lab session.

Final grades are assigned as follows:

85%-100% = A   75%-84% = B   65%-74% = C   55%-64% = D   below 55% = F

These grades will be calculated offline by the instructor and any non-item grades on D2L are Bogus.

How to be successful (in this class and in life)

- **Show up!**: This means mentally as well as physically. Participate in discussions and activities, pay attention, stay engaged, and don’t distract yourself with other things.
- **Sit up front**: Typically the highest grade earners sit near the front.
- **Read the assigned pages**: I will not cover everything in the book during lecture; however, you are responsible for it. Reading before the discussion of a subject will make the discussion in class more interesting. Bring your questions to class.
- **Take notes while reading**: will promote retention better than highlighting
- **Reread/rewrite your notes**: If you take ½ hour before each lecture and look over the notes from the previous class, you will be well prepared to learn new material.
- **Do all the assignments**: will increase your grade on other assignments as well as that particular assignment
- **Do more than what is required**: The extra effort will naturally bring higher grades, but extra effort is recognized, and commonly in life it is rewarded.
- **Work in groups**: form study groups for assignments and to go over your notes. Quiz each other. But hand in your own work. No one ever learned anything from copying others work or watching someone else do something.
- **Come to the S.I. study sessions**: These are typically held one to two days a week. Check with the S.I. Nicole Schoolmeesters for times and room.
Classroom policies

Respect! I will respect you; you will respect me and your classmates. This includes respecting people’s right to an education, to not be disturbed during class, and their right to exist and speak without ridicule. This includes in class, in email communication, and during discussions on D2L.

Class is over when I’m done. Do not start fumbling with stuff five minutes before lecture is over. This is a form of disrespect. If I need one minute beyond to complete a thought, sit and listen. It won’t kill you. I will not repeat things if you walk out on me.

Email communication: I will only email to your WSU account. I am not your peer; do not start email with “Hey Dude”. I will not respond to email if it is not written professionally, doesn’t come from your WSU account, or doesn’t have your name on it. If your answer is on the syllabus, D2L announcements page, or announced in class, I will respond only where to look for your answer.

D2L Discussions: To reduce the number of email I receive, I will post discussion sessions on D2L where you can ask and answer each other’s questions. I or my TAs will monitor to make sure questions are being answered. If you have a question, I recommend you check there before you email me as it may have already been asked and answered. Your participation helping answer your classmate’s questions will be monitored and will be factored into your final grade.

No Cell Phones – ever! If your phone goes off, or if I see you using it in class (even texting), you will be asked to leave. If it is during an exam, you will get a zero for the exam-same consequences as if you didn’t show up. If you have an emergency need for a cell phone (i.e.: your wife is about to go into labor) then sit in the front row and make me aware of your situation.

Laptops. I will not ban the use of laptops for note taking in class. (Although you should know, cognitively, writing notes leads to greater content retention). Use of a laptop for any other reason, or if you are distracting to those around you, I will ask you to close it or to leave. I reserve the right to stiffen this policy if misuse becomes a problem.

Attendance: You are adults; whether you attend or not is your choice. Class time will be spent reinforcing content from your text, focusing on what I believe are the most important concepts, and adding content I feel is relevant, but not in your book. Statistics show that the more class periods you attend, the higher your grade; however, attendance without full attention to the discussion is on no value. If you are going to surf the web, IM friends in other classes, play movies or video games, or other unrelated activities, then stay home!

Don’t be disruptive! If you arrive late, come in quietly and sit in the back. If you are chatting loudly with your neighbors, I’ll ask you to leave. It is very distracting to me to try to talk over others. I reserve the right to ask you to leave if I feel you are disruptive to the class for any reason.

If you abide by the above, I will be more pleasant, and perhaps even enjoyable to be around. If Dr. Allard is not happy, trust me, no one will be. I work very hard to try to make the material accessible and relevant, but an effort is required of you for the course to go well and for you to do well. Please make it clear by your actions that my efforts are worthwhile.
GEOS 120: Dynamic Earth Lab
Spring 2009 syllabus

Dr. Stephen T. Allard
Office: Pasteur 132
Room: SLC 178
E-mail: sallard@winona.edu

Tues. 11:00am – 12:50pm (sect. 1) or 1:00pm – 2:50pm (sect. 2)
office hours: MWF 10:00–11:30 am and 3:00–4:30 pm, every other Wed., no pm office hours
T.A.s: Aaron Magnuson (sect. 1) and Molly Partridge (sect. 2)

Read this carefully and completely! This syllabus is our contract for the lab portion of GEOS 120. You are also responsible for the content of the syllabus for the lecture portion of this class posted separately. By remaining enrolled in this course you agree to the terms and policies put forth in it.

Required Textbook:

Laboratory Manual in Physical Geology
(8th Edition)
by AGI/NAGT American Geological Institute
Edward M. Tarbuck and Richard M. Busch


Desire to Learn:

As with the lecture portion of the class, I will use D2L to communicate and post relevant materials, including grades. Lab materials will be housed on the same D2L site as the lecture materials. Announcements specific to the Lab portion will begin with D.E. Lab in the title.

D2L is currently not set up to figure your average or final course grades, so disregard all totals or average grade columns.

Course description:

The Labs each week will be times where the content from the lecture course can be put to use in hands on activities. Although there will be some instructor lead discussion for the most part you will be working alone or in small groups to answer geologic questions. The first ½ of the course will be Earth materials and the second half will cover map skill building and geologic processes and landscapes. Typically there will be some reading you should do to prepare for the lab. If you do not read ahead of time, you will most likely need to read this in class, possibly forcing you to spend additional time outside of lab finishing the work. So please read when you are assigned reading.

Course format

Each week we will work on problems in lab where you can work with others. While your Teaching Assistant and I are there to guide you to finding the answer. We typically will not give you any answers, we will ask you questions or direct you toward the information that will help you figure it out yourself. No one learns from watching others. If that were the case I would be a professional hockey player as I spent many hours as a kid watching Bobby Orr and other helmetless hockey greats play.
The first half of the lab course will focus on Earth materials, how to identify them, and what can we learn/interpret from them. The second half will focus on geologic structures, map reading skills, landforms, and earth-water interactions. It is my intent to incorporate lots of maps into these labs to build your map interpretation skills.

Labs will be due at the end of the lab period, or in some cases if additional time is needed to finish, due by noon on Friday. This is so we can return them to you the following Tuesday at the beginning of lab. 50% of the grade for each lab will be based on completion of all that was asked. The other 50% will be 2–4 questions from the lab that will be graded for correctness. My absence policy for labs is as follows:

- Late labs will be docked based on the number of days late and other considerations.
- Please see the lecture syllabus for my policy on missed exams as late lab policy is similar.
- Unexcused labs cannot be made up.
- Excused labs have a 1 week time period to be completed. I will not accept labs handed in after I have returned the graded labs.
- Miss 1 lab- you get a zero for that lab.
- Miss two labs- you get an incomplete for the course

There are two lab exams, a mid-term covering the minerals and rocks portion of the lab on the Tuesday before spring break, and a final covering the balance of the course the Tuesday before final exam week. Each will be timed, and comprehensive. It will be a combination of content knowledge and application of skills, with an emphasis of the latter. For the mid-term I will expect you to identify minerals, name rocks based on their mineral assemblage, and predict how they formed and by what processes. For the final, I will test your geologic knowledge and map reading skills simultaneously by having you identify surface features on maps and interpreting the processes responsible for these. I will repeat, I am look to help you develop applied skills used to describe and interpret geologic materials and features.

In addition to this will be other graded materials and assignments. These will not be numerous but will help me assess your progress during the semester. These might include quizzes on D2L associated with your reading assignments, or short worksheets to be completed before you come to class to help you prepare, or they may be short pop quizzes given in class. The number and difficulty will be inversely proportional to how I estimate the groups effort to be. This means if you all come prepared all the time and work hard and are engaged, I will require fewer to assess who is making progress and who is not.

**Grade calculation**

Your lab grade is worth 25% of your course grade (See course syllabus).

Grades will be posted on D2L.

To arrive at this grade I will weight lab assignments as follows:

- All Labs combined 40%
- Misc. Assignments 10%
- Mid-term grade 25%
- Final exam grade 25%

Your numeric score will be averaged into you course grade. If you do not pass the lab (grade <55%), you do not receive credit for the entire course.

These grades will be calculated offline by the instructor and **any non-item grades on D2L are Bogus.**
### GEOS 120/121

#### Projected course schedule for Spring 2009

Subject to adjustment as necessary

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<thead>
<tr>
<th>Monday</th>
<th>Tuesday--Lab</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/12/2009</td>
<td>Intro to class: what is a geologist? geology: Why should I care?</td>
<td>1/13/2009 intro to lab: Intro to tectonics: Lab #2</td>
<td>1/14/2009 Chapter 1</td>
</tr>
<tr>
<td>1/26/2009</td>
<td>Chapter 3</td>
<td>1/27/2009 finish Lab #3, work through some of Lab #4</td>
<td>1/28/2009 Chapter 4</td>
</tr>
<tr>
<td>2/16/2009</td>
<td>Chapter 6</td>
<td>2/17/2009 yes Class: Assessment day Lab #7: M/M rocks</td>
<td>2/18/2009 Chapter 7</td>
</tr>
<tr>
<td>Monday</td>
<td>Tuesday-Lab</td>
<td>Wednesday</td>
<td>Friday</td>
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