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**ELMHURST COLLEGE**  
**GEO 101-52 (Online)**

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*GEO 101-52 Introduction to Meteorology (Online)*

**GEO 101-52 Introduction to Meteorology (Online) – (1.0: IIST)  
 Fall 2009**

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**One-time Face-to-face meeting: Monday, Aug. 31: 6:00 PM SC 003**

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Professors:	Dr. Rich Schultz Asst. Professor, Geography	Teaching Asst.: Mr. Brian Firek firekb@net.elmhurst.edu
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 Voicemail: (630) 617-3128  
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Office Hours: M 9:00-10:30 AM;  
 T 9:30-10:30 AM;  
 W 9:00-10:30 AM  
 or by Appointment

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**INSTRUCTIONAL MATERIALS & RESOURCES:**

***Required Texts***

*Online Weather Studies (Textbook) and Investigations Manual 2009-2010/Summer 2009 (Lab Manual):* ISBN 13: 97818782200936 (packaged as a "bundle") Copyright 2009 American Meteorological Society.

In addition, you will be required to pay a required materials/technology fee (as per the College Catalog) on the first day of class to your instructor. The materials and technology fee is **\$25.00**. You may pay in cash or bring a check made out to "Elmhurst College" on the evening of the mandatory meeting at which time you will receive your course CD.

**COURSE DESCRIPTION:** Study of the major characteristics, patterns, and processes of dynamic change that distinguish the Earth's weather and climate

and its related influence on the biosphere. Topics addressed include: solar and Earth radiation, air temperature, air pressure and winds, precipitation, air masses and fronts, circulation patterns, severe weather occurrences, storms, and climate. The impact of human technology on weather and climate and the biosphere is discussed from the major social, ethical, and cultural perspectives. Two additional important objectives of this course are to fulfill the college's general education requirements for the ***Inquiry and Issues in Science and Technology*** category and to familiarize students with the discipline of geography.

**Overarching Goals as a Gateway to Liberal Learning:**

1. Instill a sense of lifelong learning
2. Promote effective communication skills
3. Learn to celebrate diversity in all of its forms
4. Appreciate the practical aspects of science affecting one's life in society

**COURSE LEARNING OBJECTIVES:**

After successfully completing this course, a student should be able to:

- a. Develop a fundamental understanding of the processes responsible for weather and climate, materials that form Earth's atmosphere, and the distribution on Earth of these processes, elements, and occurrences.
- b. Have a general understanding of the climatic regions of the U.S.
- c. Develop applied lab skills using various meteorological maps
- d. Have a basic understanding of environmental and climate-related issues as to how they relate to affecting culture of various peoples
- e. Have a sound comprehension of the various dimensions of human-environmental interactions, including cultural and socio-political implications
- f. Understand and develop an appreciation for the occupation of meteorological study
- g. Improve their information literacy and digital citizenship.

This course fulfills the students' requirement within the ***Inquiry and Issues in Science and Technology*** (IST) General Education category. In addition to these learning objectives for this course, the learning objectives for general education curriculum courses also apply. These include the following:

1. Develop critical thinking and problem solving skills through active exploration of natural science concepts and methods within a scientific discipline;
2. Identify and consider social, philosophical, and ethical questions associated with science and technology topics; and
3. Recognize the strength and power of scientific and technological knowledge as well as its limitations.

**ACADEMIC INTEGRITY:** The very nature of higher education requires that students adhere to accepted standards of academic integrity. Therefore,

Elmhurst College has adopted a Code of Academic Conduct and a Statement of Student Academic Integrity. These may be found in the current College Catalog and E-Book. Among the violations of academic integrity listed and defined are: cheating, plagiarism, falsification and fabrication, abuse of academic materials, complicity in academic dishonesty, falsification of records and official documents, personal misrepresentation and proxy, and bribes, favors, and threats. It is the student's responsibility to be aware of behaviors that constitute academic dishonesty.

**METHOD OF INSTRUCTION:** Audio-visual materials such as PowerPoint™ presentations, animations, Internet resources, and/or online readings will augment weekly online text-based lectures. Interactive laboratory exercises will emphasize practical hands-on experience and learning proper techniques for identifying weather occurrences, interpreting weather maps, storms, and other climatic data. Internet exercises will provide additional hands-on experience. All work will be accomplished and submitted *online*. This is a “paperless” course.

**COURSE PRACTICES REQUIRED:**

1. It is crucial that students read all assigned material and/or handouts when the week’s learning module is posted.
2. A late penalty will be assessed for homework turned in past the due date. ANY HOMEWORK MORE THAN ONE (1) WEEK LATE WILL NOT BE ACCEPTED, AND YOUR SCORE WILL BE ZERO. No questions asked.
3. Students are expected to take all online exams during the scheduled window of times. If you miss an exam, it is the student's responsibility to notify the instructor, so that he may make arrangements. YOU MUST MAKE PRIOR ARRANGEMENTS WITH YOUR INSTRUCTOR TO MAKE UP AN EXAM - DON'T JUST E-MAIL AND EXPECT TO GET A MAKE-UP EXAM. The exam must be made up within 1 week.
4. Exams and homework assignments in this course are largely based on lecture and lab material presented in class.
5. In the event that Internet access is not available to a student, for whatever reason, he/she is still responsible for course material, or information regarding schedule changes that were covered during the week’s posted learning module. Be sure to contact a fellow student to find out what you missed during your absence.
6. Students are expected to participate in online discussions and MUST login to the course via the BlackBoard course management system a minimum of **three (3)** times per week. Less than three (3) logins constitutes less than adequate time to be successful in the course.
7. You must make a face-to-face appointment with the instructor to discuss grades. Do NOT e-mail and inquire about grades. I cannot respond due to privacy considerations.

8. Although presented in an online format, this course is **NOT** synchronous (i.e., where everyone logs in at the same time). Everyone works on a weekly schedule of activities. Students learn during their own time, but are expected to meet weekly deadlines during the course (assignments, discussion questions, discussion responses, etc.).

**INTERNET AVAILABILITY OF CLASSROOM HANDOUTS:** Course materials for this course are posted on the Internet. Students of this class will be able to access, read, and/or print the materials from home or from any place where you are using a computer with Internet access capability. (All Elmhurst students have access privileges to use the computers at the College, under certain time and printer restrictions.)

**Course web site:** <http://bb.elmhurst.edu/>

**Textbook website:** <http://www.ametsoc.org/amsedu/login.cfm>

**Username:** **elmh248**

**Password:** **wx09fall**

**EVALUATION METHODS:** Your course grade will be based upon a numerical points system for: **THESE ARE APPROXIMATE - MAY CHANGE!**

- 1) ***Bio Post and BlackBoard Quiz*** (48 points)
- 2) ***Module Exams*** (100 points X 4= 400 points)
- 3) ***Comprehensive Final Exam*** (100 points)
- 4) ***Lab Assignments*** (20 X 10 = 200 points), lab assignments
- 5) ***Class Participation: CTQs*** (120 points)
- 6) ***Class Participation: Posted Responses*** (72 points)

for a total of approximately 940 possible points.

Breakdown of Points: Exams=54%; Class Participation/Discussion=21%; Labs=20%; Bio Post/BlackBoard Quiz=5%

#### **Class Participation and Preparation:**

Students will be assessed by the instructor on their level of participation and online response through online discussion questions ("Critical thinking questions" or CTQs). Included in this evaluation will be the level and quality at which students participate in online class discussions, cite reference sources, ask pertinent questions, and ask germane follow-up questions while supplying thought-provoking responses. This is a lab course and is designed as a practical hands-on experience. Your input and participation is important for both you and your fellow students - don't let them or yourself down. A student who does not actively participate in classroom activities and discussions can expect an average final grade of a **"C" at best**.

#### **Dates Exams must be completed by:**

**Exam I:** (Chapters 1-4, 9, & Geography): **Saturday, Sept. 26 , by 6:00 PM**

**Exam II:** (Chapters 5-8): **Saturday, Oct. 10, by 6:00 PM**

**Exam III:** (Chapters 10-12): **Saturday, Oct. 31, by 6:00 PM**

**Exam IV:** (Chapters 13-15 and App. III): **Saturday, Dec. 5, by 6:00 PM**

**Comprehensive Final Exam:** (Ch. 1-15, App. III): **Friday, Dec. 18, by 6:00 PM**

Note: All Module Exams are to be completed online by **individuals** (no group efforts) and are due on Saturdays at 6:00 p.m. (**NO EXCEPTIONS!**) Final Exam due on Friday of Finals Week (by 6:00 PM).

Letter grades for individual assignments are meaningless - only the total number of points earned count toward your final tally for the course grade. Final letter grades will be based upon a scale:

(89.5%=A, 79.5%=B, 69.5%=C, 59.5%=D, <59.5%=F).

You must earn at least 59.5% of the possible 930 points in order to pass the course. Exams will consist of multiple-choice questions involving critical thinking and analysis of maps/diagrams. Lab exercises will emphasize map/chart interpretation with practical "real-life" cases. There are no makeup exams because of the online format of this course.

In the past, some students have experienced technical difficulties with computers, the BlackBoard System, etc., especially during the online exams. My advice is the following:

- As a safeguard, when you begin the exam, highlight the entire exam with your cursor, copy it, and paste it into Microsoft Word or Notepad. Then, save the file as an .rtf file or .docx file. At least you will have a backup in case something happens. I WILL accept this in lieu of the online exam. You may use this method one (1) time only during the semester as an "emergency". The second time is a "0" on the exam.
- Dial-up Internet Service, Netscape, and AOL are somewhat unstable with BlackBoard, so avoid using those if possible. Suggestion: Internet Explorer 7.0+ or Mozilla Firefox 2.0+.
- Do NOT click on the "back" button during the online exams or the system will reset and you will be locked out. There are no "resets" for this.
- You may NOT confer with others in your class or group during the exam, but are allowed to use any books, notes, PowerPoint lectures, or other reference sources which were used in class. External websites, if not noted in class, should not be trusted.
- Close all other software applications and "pop-up blocker" software during the exam.
- Always click on "Submit" (**NOT** "SAVE") after completing the exam.
- Oftentimes, several students may be working on the online exam simultaneously. Therefore, the BlackBoard system slows down. Be patient and give it a few minutes. **Best practice:** leave yourself 5 hours to take the exam and don't wait until Saturday afternoon.

### **HOMEWORK ASSIGNMENTS:**

Because a science course requires you to learn a great deal of new vocabulary, your homework will consist of reading the associated chapters in the textbook as well as lectures on the CD and on the BlackBoard site. It is to your advantage to read the chapters as we discuss them online not waiting until the exam is posted to read all the covered chapters.

## **OTHER COURSE INFORMATION**

*Elmhurst College will make reasonable accommodations for persons with documented disabilities. If you have a disability, which may have some impact on your work in this course, please contact Ms. Maureen Connolly, Learning Center, Frick Center, (630) 617-3753.*

*Elmhurst College does not discriminate on the basis of race, color, creed, religion, national origin, disability, age, sex, sexual orientation, or marital status in admission to and participation in its education program, College activities and services, or employment practices. The College does not tolerate sexual harassment or sexual assault by or of its students or employees.*

### **Other Information:**

The following are a few key points to remember as part of this class:

1. I do NOT respond to e-mail regarding grades because of privacy reasons. You must visit me face-to-face to discuss anything having to do with grades.
2. Anything that is turned in for grading must be completed individually. Obviously, you may work with your fellow students on exercises and/or assignments, but each student hands in their own assignments. Most of the time, responses will be typed and submitted online via a “drop box”. However, in the event that something is hand written, neatness counts! If the instructor cannot read it, it is counted as wrong!
3. Calculators can be used for the minimal calculations that can be performed but you **must** show equations and/or your work. Full credit will **not** be given unless the work is present in the submission. Remember also that most calculations must have units attached.
4. Report any computer access problems with machines on campus (not personal computers) immediately to the instructor.
5. A detailed schedule of dates, course lecture topics, associated textbook chapters, videos, lab assignments, and lecture notes are posted on the Internet at:

**Course web site: <http://bb.elmhurst.edu/>**

**Your textbook website also includes valuable information:**

**Textbook website: <http://www.ametsoc.org/amsedu/login.cfm>**

**Username: **elmh248** Password: **wx09fall****

**Tentative Schedule as of 8/31/09:**

<u>Week</u>	<u>Dates</u>	<u>Topic</u>	<u>Text Chapter</u>	<u>Assignments</u>	<u>Due Dates</u>	<u>Points for Each Module</u>
1	<p><b><u>Mandatory Meeting</u></b> – Mon., Aug. 31 6:00 p.m. SC 003</p> <p><b><u>Module 1:</u></b> Aug. 31-Sept. 5</p>	<ul style="list-style-type: none"> <li>• Introductions,</li> <li>• Syllabus,</li> <li>• Online Course Format,</li> <li>• Share contact Info.</li> <li>• Pay technology fees</li> <li>• Distribute CDs</li> <li>• Module #1 assignments</li> </ul>		<ul style="list-style-type: none"> <li>▶ Post bio on Discussion forum entitled, "Bio" (16 points)</li> <li>▶ Read BlackBoard tutorial and take online BlackBoard quiz (32 points)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Bio post due by Thursday, Sept. 3 at 6:00 p.m.</li> <li>▶ BlackBoard quiz due by Sat., Sept. 5 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) bio posts by Sat. Sept. 5 at 6:00 PM</li> </ul>	<b>48</b>
2	<p><b><u>Module 2:</u></b> Sept. 7-Sept. 12</p>	<ul style="list-style-type: none"> <li>• Intro. to Science of Geography/Maps,</li> <li>• Monitoring the Weather</li> </ul>	<p>1. AMS PPT Lecture</p> <p>2. Text-Based Lecture (on CD)</p> <p>3. Ch. 1 in Textbook</p>	<ul style="list-style-type: none"> <li>▶ Read text-based lecture(s)</li> <li>▶ Read PowerPoint Lecture(s)</li> <li>▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>▶ Respond to at least three (3) CTQs by others</li> <li>▶ Lab 1: Latitude/Long.</li> <li>▶ Lab 2: Isoplething</li> </ul>	<ul style="list-style-type: none"> <li>▶ Answer assigned CTQs by Wednesday, Sept. 9 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) different CTQs by Saturday, Sept. 12 at 6:00 p.m.</li> <li>▶ Lab 1 due by Saturday, Sept. 12 at 6:00 p.m.</li> <li>▶ Lab 2 due by Saturday, Sept. 12 at 6:00 p.m.</li> </ul>	<b>36</b>
3	<p><b><u>Module 3:</u></b> Sept. 14-Sept. 19</p>	<ul style="list-style-type: none"> <li>• Atmosphere: Origin, Composition, and Structure</li> <li>• Solar and Terrestrial Radiation</li> </ul>	<p>1. AMS PPT Lecture,</p> <p>2. Text-Based Lecture (on CD)</p> <p>3. Ch. 2 in Textbook</p> <p>4. Ch. 3 in Textbook</p>	<ul style="list-style-type: none"> <li>▶ Read text-based lecture(s)</li> <li>▶ Read PowerPoint Lecture(s)</li> <li>▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>▶ Respond to at least three (3) CTQs by others</li> <li>▶ Lab 3: Temperature and Lapse Rates</li> <li>▶ Lab 4: Universal Coordinated Time Lab</li> </ul>	<ul style="list-style-type: none"> <li>▶ Answer assigned CTQs by Wednesday, Sept. 16 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) different CTQs by Saturday, Sept. 19 at 6:00 p.m.</li> <li>▶ Lab 3 due by Saturday, Sept. 19 at 6:00 p.m.</li> <li>▶ Lab 4 due by Saturday, Sept. 19 at 6:00 p.m.</li> </ul>	<b>36</b>

4	<b>Module 4:</b> Sept. 21- Sept. 26	<ul style="list-style-type: none"> <li>• Heat, Temperature and Atmospheric Circulation,</li> <li>• Planetary Circulation: El Niño and La Niña</li> <li>• <b>Exam I</b></li> </ul>	1. AMS PPT Lecture, 2. Text-Based Lecture (on CD) 3. Ch. 4 in Textbook 4. Ch. 9 in Textbook	▶ Read text-based lecture(s) ▶ Read PowerPoint Lecture(s) ▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum ▶ Respond to at least three (3) CTQs by others ▶ Take Online Exam I (includes Ch. 1-4, 9, plus Geography and Maps)	▶ Answer assigned CTQs by Wed., Sept. 23 at 6:00 p.m. ▶ Respond to at least three (3) different CTQs by Sat., Sept. 26 at 6:00 p.m. ▶ Exam I due by Saturday, Sept. 26 at 6:00 p.m. ▶ <b>NO</b> labs this module because of Exam I	<b>116</b>
5	<b>Module 5:</b> Sept. 28-Oct. 3	<ul style="list-style-type: none"> <li>• Air Pressure</li> <li>• Wind</li> </ul>	1. AMS PPT Lecture, 2. Text-Based Lecture (on CD) 3. Ch. 5 in Textbook 4. Ch. 8 in Textbook	▶ Read text-based lecture(s) ▶ Read PowerPoint Lecture(s) ▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum ▶ Respond to at least three (3) CTQs by others ▶ Lab 5: Investigation 1A (Air Pressure and Wind) in your lab manual (including applications) ▶ Lab 6: Investigation 1B (Surface Air Pressure Patterns) in your lab manual (including applications) ▶ Lab 7: Investigation 2A (Surface Weather Maps) in your lab manual (including applications)	▶ Answer assigned CTQs by Wednesday, Sept. 30 at 6:00 p.m. ▶ Respond to at least three (3) different CTQs by Saturday, Oct. 3 at 6:00 p.m. ▶ Lab 5 due by Saturday, Oct. 3 at 6:00 p.m. ▶ Lab 6 due by Saturday, Oct. 3 at 6:00 p.m. ▶ Lab 7 due by Saturday, Oct. 3 at 6:00 p.m.	<b>46</b>

6	<p align="center"><b>Module 6:</b> Oct. 5-Oct. 10</p>	<ul style="list-style-type: none"> <li>• Humidity, Saturation, and Stability</li> <li>• Clouds, Precipitation, and Weather Radar</li> <li>• <b>Exam II</b></li> </ul>	<ol style="list-style-type: none"> <li>1. AMS PPT Lectures</li> <li>2. Text-Based Lectures (on CD)</li> <li>3. Ch. 6 in Textbook</li> <li>4. Ch. 7 in Textbook</li> </ol>	<ul style="list-style-type: none"> <li>▶ Read text-based lecture(s)</li> <li>▶ Read PowerPoint Lecture(s)</li> <li>▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>▶ Respond to at least three (3) CTQs by others</li> <li>▶ Take Online Exam II (includes Ch. 5-8)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Answer assigned CTQs by Wednesday, Oct. 7 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) different CTQs by Saturday, Oct. 10 at 6:00 p.m.</li> <li>▶ Exam II due by Saturday, Oct. 10 at 6:00 p.m.</li> <li>▶ <b>NO</b> labs for this module because of Exam II.</li> </ul>	116
7	<p align="center"><b>Module 7:</b> Oct. 12-Oct. 17</p>	<ul style="list-style-type: none"> <li>• Weather Systems of Midlatitudes (Mid-Latitude Cyclones)</li> </ul>	<ol style="list-style-type: none"> <li>1. AMS PPT Lecture,</li> <li>2. Text-Based Lecture (on CD)</li> <li>3. Ch. 10 in Textbook</li> </ol>	<ul style="list-style-type: none"> <li>▶ Read text-based lecture(s)</li> <li>▶ Read PowerPoint Lecture(s)</li> <li>▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>▶ Respond to at least three (3) CTQs by others</li> <li>▶ Lab 8: Investigation 4A (Temperature and Air Mass Advection) in your lab manual (including applications)</li> <li>▶ Lab 9: Investigation 4B (Heating Degree-Days and Wind Chill) in your lab manual (including applications)</li> <li>▶ Lab 10: Investigation 6A (Clouds, Temperature, and Air Pressure) in your lab manual (applications only pp. 6A5-6A10)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Answer assigned CTQs by Wednesday, Oct. 14 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) different CTQs by Saturday, Oct. 17 at 6:00 p.m.</li> <li>▶ Lab 8 due by Saturday, Oct. 17 at 6:00 p.m.</li> <li>▶ Lab 9 due by Saturday, Oct. 17 at 6:00 p.m.</li> <li>▶ Lab 10 due by Saturday, Oct. 17 at 6:00 p.m.</li> </ul>	46

8	<p><b>Module 8:</b> Oct. 19-Oct. 24</p>	<ul style="list-style-type: none"> <li>Thunderstorms and Tornadoes</li> </ul>	<ol style="list-style-type: none"> <li>PPT Lecture,</li> <li>Text-Based Lecture (on CD)</li> <li>Ch. 11 in Textbook</li> </ol>	<ul style="list-style-type: none"> <li>Read text-based lecture(s)</li> <li>Read PowerPoint Lecture(s)</li> <li>Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>Respond to at least three (3) CTQs by others</li> <li>Lab 11: Investigation 7A (Precipitation Patterns) in your lab manual (including applications)</li> <li>Lab 12: Investigation 11A (Thunderstorms) in your lab manual (including applications)</li> <li>Lab 13: Investigation 11B (Tornadoes) in your lab manual (including applications)</li> </ul>	<ul style="list-style-type: none"> <li>Answer assigned CTQs by Wednesday, Oct. 21 at 6:00 p.m.</li> <li>Respond to at least three (3) different CTQs by Saturday, Oct. 24 at 6:00 p.m.</li> <li>Lab 11 due by Saturday, Oct. 24 at 6:00 p.m.</li> <li>Lab 12 due by Saturday, Oct. 24 at 6:00 p.m.</li> <li>Lab 13 due by Saturday, Oct. 24 at 6:00 p.m.</li> </ul>	46
9	<p><b>Module 9:</b> Oct. 26-Oct. 31</p>	<ul style="list-style-type: none"> <li>Tropical Weather Systems</li> <li><b>Exam III</b></li> </ul>	<ol style="list-style-type: none"> <li>AMS PPT Lectures</li> <li>Text-Based Lecture (on CD)</li> <li>Ch. 12 in Textbook</li> </ol>	<ul style="list-style-type: none"> <li>Read text-based lecture(s)</li> <li>Read PowerPoint Lecture(s)</li> <li>Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>Respond to at least three (3) CTQs by others</li> <li>Lab 14: Investigation 12A (Hurricanes) in your lab manual (including applications)</li> <li>Lab 15: Investigation 12B (Hurricane Wind Speeds and Pressure Changes) in your lab manual (including applications)</li> </ul>	<ul style="list-style-type: none"> <li>Answer assigned CTQs by Wednesday, Oct. 28 at 6:00 p.m.</li> <li>Respond to at least three (3) different CTQs by Saturday, Oct. 31 at 6:00 p.m.</li> <li>Lab 14 due by Saturday, Oct. 31 at 6:00 p.m.</li> <li>Lab 15 due by Saturday, Oct. 31 at 6:00 p.m.</li> <li>Exam III due by Saturday, Oct. 31 at 6:00 p.m.</li> </ul>	136

				▶ Take Online Exam III (includes Ch. 10-12)		
10	<b>Module 10:</b> Nov. 2-Nov. 7	• Weather Analysis and Forecasting	<ol style="list-style-type: none"> <li>1. AMS PPT Lecture,</li> <li>2. Text-Based Lecture (on CD)</li> <li>3. Ch. 13 in Textbook</li> </ol>	▶ Read text-based lecture(s) ▶ Read PowerPoint Lecture(s) ▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum ▶ Respond to at least three (3) CTQs by others ▶ Lab 16: Investigation 13A (Weather Instruments and Observations) in your lab manual (including applications) ▶ Lab 17: Investigation 13B (Weather Forecasts) in your lab manual (including applications)	▶ Answer assigned CTQs by Wednesday, Nov. 4 at 6:00 p.m. ▶ Respond to at least three (3) different CTQs by Saturday, Nov. 7 at 6:00 p.m. ▶ Lab 16 due by Saturday, Nov. 7 at 6:00 p.m. ▶ Lab 17 due by Saturday, Nov. 7 at 6:00 p.m.	<b>36</b>
11	<b>Module 11:</b> Nov. 9-Nov. 14	• Climate and Climate Change	<ol style="list-style-type: none"> <li>1. AMS PPT Lecture,</li> <li>2. Text-Based Lecture (on CD)</li> <li>3. Ch. 15 in Textbook</li> </ol>	▶ Read text-based lecture(s) ▶ Read PowerPoint Lecture(s) ▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum ▶ Respond to at least three (3) CTQs by others	▶ Answer assigned CTQs by Wednesday, Nov. 11 at 6:00 p.m. ▶ Respond to at least three (3) different CTQs by Saturday, Nov. 14 at 6:00 p.m. ▶ <u>NO</u> labs for this module	<b>16</b>
12	<b>Module 12:</b> Nov. 16-Nov. 21	• Climate Classification	<ol style="list-style-type: none"> <li>1. AMS PPT Lecture,</li> <li>2. Text-Based Lecture (on CD)</li> <li>3. Appendix III (Climate Classification) in your Textbook</li> </ol>	▶ Read text-based lecture(s) ▶ Read PowerPoint Lecture(s) ▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum ▶ Respond to at least three (3) CTQs by others ▶ Lab 18: Investigation 15A (Visualizing	▶ Answer assigned CTQs by Wednesday, Nov. 18 at 6:00 p.m. ▶ Respond to at least three (3) different CTQs by Saturday, Nov. 21 at 6:00 p.m. ▶ Lab 18 due by Saturday, Nov. 21 at 6:00 p.m. ▶ Lab 19 due by Saturday,	<b>36</b>

				Climate) in your lab manual (including applications) ▶ Lab 19: Investigation 15B (Local Climate Data) in your lab manual (including applications)	Nov. 21 at 6:00 p.m.	
13	<b>Module 13:</b> Nov. 23-Nov. 28	<ul style="list-style-type: none"> <li>Atmospheric Optics</li> </ul>	<ol style="list-style-type: none"> <li>PPT Lecture,</li> <li>Text-Based Lecture (on CD)</li> <li>Ch. 14 in your Textbook</li> </ol>	<ul style="list-style-type: none"> <li>▶ Read text-based lecture(s)</li> <li>▶ Read PowerPoint Lecture(s)</li> <li>▶ Answer assigned critical thinking questions (CTQs) in the appropriate threaded discussion forum</li> <li>▶ Respond to at least three (3) CTQs by others</li> </ul>	<ul style="list-style-type: none"> <li>▶ Answer assigned CTQs by Wednesday, Nov. 25 at 6:00 p.m.</li> <li>▶ Respond to at least three (3) different CTQs by Saturday, Nov. 28 at 6:00 p.m.</li> </ul>	<b>16</b>
14	<b>Module 14:</b> Nov. 30-Dec. 5	<ul style="list-style-type: none"> <li><b>Exam IV</b></li> </ul>		<ul style="list-style-type: none"> <li>▶ Lab 20: Investigation 14A (Optical Phenomena) in your lab manual (including applications)</li> <li>▶ Take Online Exam IV (Includes Ch. 13, 14, 15, and Appendix III)</li> </ul>	<ul style="list-style-type: none"> <li>▶ Lab 20 due by Saturday, Dec. 5 at 6:00 p.m.</li> <li>▶ Exam IV due by Saturday, Dec. 5 at 6:00 p.m.</li> </ul>	<b>100</b>
15	<b>Module 15:</b> Dec. 7-Dec. 12	<ul style="list-style-type: none"> <li>Online Discuss./Debate: <b>Global Climate Change</b></li> <li>Study for Final Exam</li> </ul>		<ul style="list-style-type: none"> <li>▶ No reading assignments</li> <li>▶ Global climate change posts</li> </ul>		<b>0</b>
16	<b>Finals Week:</b> Dec. 14-Dec. 18	<ul style="list-style-type: none"> <li><b>Cumulative FINAL EXAM</b></li> </ul>	Chapters 1-15, Appendix III	<ul style="list-style-type: none"> <li>▶ Complete the online course evaluation</li> </ul>	<ul style="list-style-type: none"> <li>▶ Complete online course evaluation by Friday, Dec. 18 at 6:00 PM</li> <li>▶ Final Exam due by Friday, Dec. 18 at 6:00 p.m.</li> </ul>	<b>100</b>

**\*\*Final Course Grades will be posted on the BlackBoard and BlueNet sites by Mon., Dec. 21, 2009**

## **Online Learning Readiness**

Online learning is an exciting way to learn that offers an unparalleled combination of flexibility and interactivity. We have worked hard to ensure that your experience will be positive, but we also know that for the beginner, taking a course online can be a daunting prospect. We have put together this guide to help prepare you for learning online. Even if you have taken a course online, you may find some new material here. We hope that you, too, will take the time to read this material.

Here is what you will find in this document:

- An overview of online learning, including a definition of online learning and comparisons between online and traditional courses.
- Computer basics: answers to questions that are general in nature and that pertain specifically to taking courses online
- The qualities of a successful online learner
- Study suggestions for the successful online learner
- A brief guide to participating in discussion forums

We hope that you find this information useful. If you think of anything else you believe we should have included in this document, please let us know at [richs@elmhurst.edu](mailto:richs@elmhurst.edu)

### **Online learning – an overview**

#### ***What is an “online course?”***

An online course is a course that uses the Internet to deliver course material to your computer. Online courses are available 24 hours a day, every day. In an entirely online course, there are no class (face-to-face or “f2f”) meetings. All work will be submitted online via the Internet and most interactions between class members and instructors will take place online, via discussion forums or email.

#### ***What are the differences between online courses and on-campus (sometimes called on-ground or “brick and mortar”) courses?***

Online classes require more involvement on the part of student than traditional classes. In an on-line course, there is no “back row” in which students can sit quietly and take notes. In an online class, students are constantly involved in the learning process. Some students find that online classes require much more self-discipline than regular classes. Since there is no class to attend, it can be easy to avoid sitting down in front of the computer to work.

Unlike traditional classes, with online learning you can “go to class” any time. Of course, no one is going to see you if you raise your hand. To communicate you must email your instructors, or, if the instructors are willing, contact them by phone.

Advantages to online learning include:

Advantages of learning online:

- Flexible schedule
- No driving or taking the bus to class, saving you money
- You can learn new computer skills
- You often get the chance to work with people from various geographical locations
- You will develop your non-verbal communication skills

### **Computer basics**

In this section, you will find helpful information concerning the general use of computers and the Internet, and material about computer use that pertains directly to courses offered via the web.

An “ISP” is an ‘Internet Service Provider’, which provides Internet access to companies or individuals. An ISP maintains connections to other networks and ISPs, and acts as a “router” for Internet traffic between a customer’s computer and any other machine also connected to the Internet anywhere else in the world. Your computer needs to have Internet access to access your course.

#### **What kind of computer do I need?**

You need a computer capable of accessing the Internet. Unless your computer is rather old, in all likelihood it will have a modem and will have a built-in Ethernet card. The latter will allow your computer to access the Internet at higher speeds than by modem (if you have signed up for high speed access with your Internet service provider).

You can use either a Macintosh or a PC with the appropriate Internet browser installed (see below). Macs and PCs all come with browsers pre-installed. Specifically, student computer systems for our online courses must be able to run at least Internet Explorer 7 (on a multimedia PC or Mac that includes a sound card, speakers, at least a 24x CD-ROM drive and a color monitor, 15” or larger). Other web browsers should work, but we cannot ensure compatibility. This usually requires at least a Pentium PC or a Power PC Macintosh. Minimum computer memory required is 256 MB RAM but more is preferable. Participants need access to the Internet with a minimum speed of at least 56.6 kps. A small color printer is also useful, but not required.

Students are responsible for purchasing, installing and maintaining all computer hardware and software required for their participation in these online courses.

Note too that in order to provide for a quality learning experience, you need more frequent computer access than can be provided by going to an "Internet café".

You must be able to turn your computer on and off, use a mouse, know how to start and end programs, create, open and save files, and use a web browser. Note that it is **NOT** the responsibility of your instructor or the Department of Geography and Geosciences to teach you these skills. If you do not have the required computer skills, find someone who can teach you these skills before you start the course or perhaps this course is not for you.

In addition to the above, you should also remember that you will be required to do a considerable amount of typing for your online courses. You do not have to be a keyboard maestro to enjoy the course, but be aware that if it has been a few years since you have done any typing, it may take a while for you to feel comfortable with the computer keyboard. If you would like to practice your typing, you can use online typing tutoring available at <http://www.learn2type.com>

In all likelihood, you will be using a Windows systems or Macintosh (OS 9 or X). Software requirements for online courses are minimal, but there are some programs that you must have to complete your course. You will need:

- 1) A web browser. A web browser contains the software that enables you to find, retrieve, view, and send information over the Internet. See "What kind of a computer do I need?" above for a discussion of which browsers will work well and how to get one.
- 2) A word processor. A word processor is software that enables you to create and format text documents, such as essays. There are a number of word processors available. Many computers come with a word processor already installed. Microsoft "Word" is the most widely used word processor. A number of PCs come with Word installed. Some of you may have Corel's "Word Perfect", which is also fine. Macintosh users may have a program called "Appleworks" installed. Microsoft Word is also available for the Macintosh. There are other word processors available, but the most important ability your word processor must have is the ability to save file in "rtf" (rich text format). It is a format for saving a text document that allows you to retain most of your layout and formatting even though you can't be sure what computer configuration is being used on the receiving end.  
If you are not sure that your word processor can save files in .rtf, see "My instructor wants me to submit an assignment in .doc, or .rtf format, or as a last resort, as a PDF. What does this mean?" below.
- 3) Presentation software. Some courses may require you to view (and possibly create) presentations created in Microsoft "PowerPoint." Many computers come with PowerPoint pre-installed. Macintosh users will have to purchase PowerPoint, or can use Apple's "Keynote" (you must purchase Keynote) to read PowerPoint presentations. PC users who do not have or wish to purchase PowerPoint, can currently download a free PowerPoint 2007 viewer from Microsoft at: <http://www.microsoft.com/Downloads/details.aspx?familyid=048DC840-14E1-467D-8DCA-19D2A8FD7485&displaylang=en>

### **General Information**

- A browser is a computer program used to access the World Wide Web. Common browsers are Internet Explorer, Netscape, both of which are currently available for both PC and Macintosh platforms. Safari is Apple's web browser. If you are having difficulty accessing pages or files on the net using Safari, try using one of the other browsers mentioned above. Note also that some functions in BlackBoard may not work well in Safari. Netscape for the Mac is available at <http://channels.netscape.com/ns/browsers/default.jsp> . Internet Explorer for the Mac is available at <http://www.microsoft.com/mac/> .

#### ***What is an email client?***

- An email client is the program used to send and receive email. Examples of email clients include Google's G-Mail, Microsoft's "Outlook," "Outlook Express", and "Entourage," Apple's "Mail", Netscape's "Mail," and "Eudora".  
*Note: some of you may not use a separate program to read your email, but instead use a web-based email service such as Hotmail or Yahoo! Mail. If you are having trouble accessing your email or sending attachments, consider using one of the above clients.*

- You might occasionally come across the term "interface." An interface is a device or a system that allows two unrelated entities (in this case, you and your computer) to interact in some way. To allow you to tell your computer to do something, programmers include an "interface," which for the majority of home users is the kind of interface called "a graphical user interface or GUI (pronounced "gooey")." When you use your computer's mouse to "push" buttons that are visible on your computer's screen, you are using an interface.

#### ***What's a URL?***

- An URL is a web address. URL stands for Universal Resource Locator. It is a unique address on the Internet and is composed of at least three parts:
  - After the final slash, there can also be any number of directory names, and a file name. For example: <http://det.ubc.ca/detsite/home/whatsnew.html>
  - *Note: if you enter a URL into your web browser, you must be precise. A URL must be spelled exactly. You must also reproduce upper or lower cases exactly. You can also paste a URL into your browser.*

### **What is a bookmark and why are they useful?**

- A "bookmark" in a web browser is in fact your web browser's way of recording the URL of a page on the World Wide Web. As you open WebPages, you may want to bookmark them so that you can quickly return to them. By book marking a page you can easily go to it again by clicking a bookmark icon in the Personal Toolbar or Bookmarks menu (Netscape), choosing it from the Bookmark menu bar (Safari), or by choosing the bookmark's name from the Favorites menu (Internet Explorer).
- To bookmark a webpage, open the page, and then choose Add Bookmark (or Add Page to Favorites) from the Bookmarks or Favorites menu. You can also click the Add Bookmarks/Favorites button in the address bar, if it is showing.
- Downloading a file from the Internet, like a picture or document, means you are creating a copy of the file down from the Internet to your computer. It may help if you think of the Internet as being physically higher than your own computer. This makes it easier to visualize downloading.
- *How do I copy and paste?*
  - Using the mouse, select the text (usually holding down the left mouse button), graphic, or picture you want to copy and choose Copy from the Edit menu. Choose where you want to paste the item by clicking your mouse to place the cursor and choose Paste from the Edit menu.

### **Course Related**

Do I need an email address to take this online course? **Yes!** You need to have an Elmhurst College email address so that your instructor (and others in the class) can contact you, if need be. If you are an EC student, you should already have an email account. Of course, you may always forward that EC e-mail address (mailbox) to your personal mailbox. If you have Internet access, then your ISP (Internet Service Provider) likely provides you with an email account. There are also free web-based email services, such as Google (Gmail), Hotmail, or Yahoo! Mail.

**IMPORTANT:** You MUST forward your EC e-mail address (if you are not using the EC e-mail address). Go here: <http://public.elmhurst.edu/elmhurststudents> and then type in your Elmhurst Technology account username and password to forward your e-mail.

You can access your course from any computer that has an Internet connection as long as you know your BlackBoard user id and password and the URL for the BlackBoard site (<http://bb.elmhurst.edu>).

### **The importance of logging in yourself**

It is important that you log into the course using your own user id and password. If you and a friend are taking the same course, you should **NOT** access the course from your friend's computer without logging in to the course using your own user id and password. Otherwise, every post you make on a discussion forum will be under your friend's name, not yours.

### ***Can I download the entire course to my computer and work on materials when my computer is not connected to the Internet?***

In a word, "**NO.**" You can compile course content and read it when your computer is not connected to the Internet, but you cannot do anything requiring any interactivity (engaging in discussions, chats, or linking to external URLs) without physically logging into the course online.

As tempting as it is to dive right into the course without reading this material, you should read it. You can avoid considerable frustration and needless time on the phone to BlackBoard support by reading this material. It can increase your enjoyment of the experience of learning online. Even if you are an old hand at online learning, knowing what is in this section can help to aid other classmates who may not be as experienced as you are.

### ***Why do I need Adobe's "Reader" for PDFs and, for that matter, what is a PDF?***

You may be required to read PDFs for a particular module. Adobe PDF is a format for electronic document exchange that preserves document integrity so that files can be viewed and printed on a variety of platforms, such as Windows and Macintosh. "Adobe Reader" is free software that lets you view and print Adobe Portable Document Format (PDF) files on a variety of hardware and operating system platforms. There is a good chance that your computer already has Adobe's Reader installed, but if it doesn't, use this link to get it: <http://www.adobe.com/products/acrobat/readstep2.html>. Follow the instructions once you get to the web page.

### ***My instructor wants me to submit an assignment in.docx, or .rtf format, or as a last resort, as a PDF. What does this mean?***

If you create documents in Microsoft Word 2007, you do not have to worry about creating a document in the ".docx" format, since that is Word's default file format. If you are using WordPerfect or AppleWorks, you can save your document either as a Word document, or in a format known as "rtf" (Rich Text Format). Otherwise, your instructor may not be able to open it. If you are using Office or Word 2003, please download and install the Compatibility Patch so that you can read .docx files: <http://www.microsoft.com/downloads/details.aspx?familyid=941B3470-3AE9-4AEE-8F43-C6BB74CD1466&displaylang=en> Elmhurst College officially uses Office 2007.

To save a document in Rich Text Format (.rtf), do the following:

1. Create or open your document.
2. Select Save As from the File Menu.
3. A window will appear prompting for a file type and destination to save the file.

4. Click the File Type pull-down menu and select Rich Text Format.
5. Verify that the file name and Destination is correct and click Save.
6. Most word processing programs can now read your document.

This process works for most word processing documents. However, it does not always work for files with a great deal of graphics or column formatting.

When saving a file as an .rtf does not work well, you might consider saving your document as a PDF, if your instructor approves. If you are using Windows, you need Adobe's Acrobat, which you also need to buy. If you are using a Macintosh and are running OS X, you can save files as PDF from within any program. This is a very simple process:

1. With the document open, choose Print from the File menu
2. Click Save As PDF.
3. Type a name for the document and choose where you want to save it.
4. Click Save.

If you are using a specific email client, to attach a document to an email message, do the following:

1. Start up a new message.
2. After typing in the recipient info and subject, select the "attach document" (or "attach" or "add attachment") option from the selection of buttons that appears near the top of your new message window.
3. A special window will open. From this window choose the document you wish to attach and click ok. You may have to "browse" to locate your document.
4. When you send the mail message, the document will be sent with it.

### **The qualities of a successful online learner**

What does it take to be a successful online learner? In many ways, the qualities that will lead to success are the same as those required to succeed in many other endeavors:

#### **General qualities**

- determined
- flexible
- positive outlook
- self-motivated
- able to work alone
- ability to follow instructions
- able to meet deadlines
- ability to communicate in writing
- ability to work with others to complete projects
- willing to ask for help when necessary

#### **Technology-related**

- possess, or be able to learn, basic skills required to operate a personal computer
- able to work with new technology
- able to use, or to learn how to use, email, including attaching files
- ability to search the web
- ability to copy and paste text or graphics from one program to another

#### **Other Tips:**

##### **Study suggestions for the successful online learner**

- Effective time management is a must. You must be able to determine - and follow - a realistic schedule to complete your assignments. **Do not procrastinate!** It is very easy to fall behind when you do not have to physically attend a class. Once you fall behind, it can be very difficult to get caught up. Get help when you need it. Resolving problems at a distance without the means that exist in a regular classroom can be challenging. Be sure to make use of the BlackBoard Support/help desk, available online.
- Research and writing skills are crucial for online classes. Knowing how to effectively research using the Internet and libraries and having strong writing skills are important.
- Knowing how to correctly cite materials taken from Internet published work. This course uses the APA format. Learn about the APA style of citation here: <http://www.elmhurst.edu/library/ecresources/writecite.html>
- The ability to work well cooperatively is an important skill. Many online classes require learners to participate in collaborative learning activities. Participate actively. Do the various learning activities, and participate in the discussion as much as you can in order to get the most out of a course.
- Remember, technology is far from perfect. If you lose your Internet connection, you may lose your work. Type and **save** all writing assignments in a word processor. By doing this, you have the ability to copy and paste into the message box or to attach the document to an email. It is also a very good idea to print out all your assignments as backup.

## Course Rubric: Discussion (Critical Thinking Questions)

Evaluation Criteria	Advanced (9-10 pts)	Proficient (6-8 pts)	Average (4-5 pts)	Below Average or Non-Existent (0 pts)
<b>Development of Ideas</b>	Well-developed ideas; introduces new ideas; stimulates discussion; posted in correct thread.	Developing ideas; sometimes stimulates discussion, posted in correct thread.	Poorly developed ideas, which do not add to discussion, mostly posted in correct thread.	Does not enter the discussion or posted in wrong thread.
<b>Evidence of Critical Thinking</b>	Clear evidence of critical thinking--application, analysis, synthesis and evaluation. Clarity of argument, depth of insight into theoretical issues, originality of treatment, and relevance characterize postings. Sometimes include unusual insights. Arguments are well supported.	Beginnings of critical thinking; postings tend to address peripheral issues. Generally accurate, but could be improved with more analysis and creative thought. Tendency to recite facts rather than address issues.	Poorly developed critical thinking	Does not enter the discussion
<b>Response to Other Students and Instructor</b>	Interacts at least three times with other students and/or instructor with clarity and thought-provoking analysis. (5-6 pts.)	Interacts 1-2 times with other students and/or instructor with some insight. (3-4 pts.)	Little interaction with no insight. (1-2 pts.)	Does not enter discussion (0 pts.)
<b>Working with Assigned Partner</b>	Effectively communicates with partner and collaboratively provides a well-thought out individual response. Each partner correctly and plainly labels their response(s) in a single post.	Interacts with partner mostly well, but in some instances communication breaks down. Each partner almost always labels their response(s) correctly and plainly in the single post.	Rather poor in terms of communication. Partners do not post together so overall meaning of collaborative work is lost. Two separate posts may result.	No communication at all and each partner posts separately or not at all. No evidence whatsoever of collaborative learning.
<b>Timeliness</b>	Individual message and at least two responses posted <u>before</u> deadline	Individual message posted before deadline, but not both responses	Postings made after the deadline	No messages posted
<b>Citation</b>	Correctly uses APA Citation Style and includes more than three (3) correctly cited sources. Does <u>NOT</u> use Wikipedia.org as a reference cited.	Cites correctly most of the time using APA style. Includes three (3) correctly cited sources. Sometimes uses MLA Style or does not cite correctly. Wikipedia.org used as a citation source without corroboration from other non open source sites.	Hardly ever cites correctly using the APA Style. Less than three (3) sources used. Uses Wikipedia.org as a source without corroboration from other non open source sites.	Does not cite at all. This constitutes <b>plagiarism</b> and student will be warned once. The second offense is punishable by a "0" on the assignment and a discussion with the instructor as well as referral to the College Dean. The third offense is punishable by failing the course and a referral to the College's Disciplinary Board.

Critical Thinking Questions (CTQs) are a **major** part of this course. Each weekly module includes one question worth ten (10) points assigned to each student (or group of students) in which a detailed response is posted by the student(s) in the correct discussion thread. Students must post their *individual* response to the question on time and reply (comment on) to others' responses by the end of the module. Timely interaction is most important. Class participation is what makes this work for everyone in the course.

**Welcome to Meteorology 101-52 Online**  
"Introduction to Meteorology"



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**THIS CLASS IS NOT EASY!** It will require self-discipline and dedication on your part. Many will enroll -- most will pass (but not all). OK - now that I have your attention, let me explain...

NONE of the GenEd classes offered at Elmhurst College are designed to be "easy" - or difficult for that matter. You may find some classes easier than others (some students are science-phobic for example). They are designed to give you an appreciation for the subject matter so that you leave the course with some knowledge of that topic. There really is no correlation between difficulty in a course and its course number. For example, 100-level courses can be more difficult than 400-level course. GEO 101 is no exception.

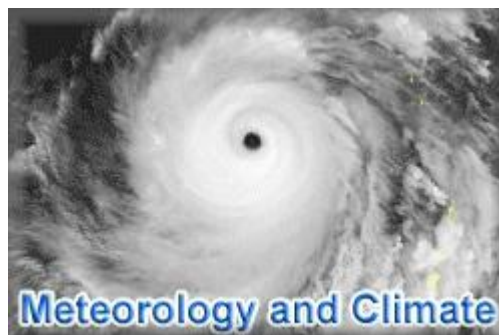
Many students assume that an online class will be easier than a regular class - **NOT TRUE!** We expect you to do **JUST AS MUCH WORK** as in a regular section. The only difference is that **YOU** get to decide **WHEN** to do the work (i.e., at 6 am or at 11 pm), and you have some flexibility about when you take the exams, etc. Keep in mind that there are weekly assignments and discussion posts, this is **NOT** a course that you can wait until the last week (or later) to complete.

You should **NOT** expect to happily surf your way to easy credits - you still have to put in serious hours to read the book, read the text-based lectures, do the lab exercises, study, answer the assigned critical thinking questions, reply to others' posts, and take the exams.

In a traditional "brick and mortar" 4-credit lab course, we expect and plan that you attend every class (that's 5 hours per week), PLUS put in another 8-10 hours a week (2 hours outside of class for every one hour in the classroom) reading and studying. The same is true with the online class - **YOU SHOULD BE PREPARED TO PUT IN A MINIMUM OF 13-15 HOURS PER WEEK TO GET A DECENT GRADE (B OR BETTER)**. If you find your grade in this class slipping, ask yourself if you're really putting in enough hours. Then, seek help from the instructor! I don't know if you are struggling if you don't communicate with me. I am glad to help, but you must ask.

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This Handout contains everything you need to know about how to succeed in this course.  
**READ THE ENTIRE Handout CAREFULLY!**



About this course...

Welcome to **METEOROLOGY 101-52 Online: Introduction to Meteorology**. This is a class in which we describe & explain Earth's Weather and Climate. We also discuss contemporary issues such as greenhouse warming; the bone-chilling cold waves in Russia in recent years, the ozone "hole", air pollution etc. The course is primarily descriptive ... no excessive math or physics background is needed (beyond what you had in high school), although there will be some simple mathematical calculations in the lab assignments and in order to respond to discussion questions.

METEOROLOGY 101-52 Online covers the same material -- and carries the same workload -- as the traditional “brick and mortar” lecture sections, but with the added flexibility of learning when it is convenient for you. The learning experience in the online section is heightened by Internet access to a wealth of current weather and climate data, provided by the American Meteorological Society (AMS). This course is licensed – that means over 200 colleges and universities in the U.S. are completing the same basic course, established by the American Meteorological Society (AMS).

Successful completion of this course fulfills the General Education Requirement in IST, and is certified by the EC General Studies under the General Education Guidelines. We have taken every precaution to ensure a problem-free experience, but we fully expect to encounter a few problems. Many of these are unique to the online teaching and learning experience. Student and instructor flexibility are important tools for addressing online class problems should they arise. We promise to make every effort to resolve any problem as quickly and fairly as possible.

Sincerely,  
Richard B. Schultz, Ph.D.  
Facilitator

---

Instructor Information:

Dr. R. B. Schultz

Fall 2009

Office: 316 Daniels Hall

Phone: (630) 617-3128

Email: [richs@elmhurst.edu](mailto:richs@elmhurst.edu) (best and quickest way to reach me)

You may send e-mail at anytime, and I check e-mail frequently on all days, but please be aware that faculty workloads may not permit an immediate response. In other words, don't expect an immediate response if you send a message at 3:00 a.m. Saturday morning! I'll do the best I can to answer your e-mail as fast as I can.

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Getting Started

- After Aug. 31, There are **NO** ON-CAMPUS MEETINGS!! We are 100% online!
- You will use your Elmhurst College e-mail address assigned to you. You may use your personal e-mail address as long as your Elmhurst College e-mail account is forwarded to it.
- To access BlackBoard, use your Elmhurst College username and password. If you do not know your BlackBoard username and password, contact Linda Selvik at: (630) 617-3699.
- I must be able to contact you, and in this "virtual" class, the only way is by email! I send out a number of important and interesting announcements and bits of information by email - you will not want to miss these!
- I will also post on the course site under “Announcements”. BE SURE TO READ THE “ANNOUNCEMENTS” SECTION EVERY TIME YOU ACCESS THE SITE!!

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**Textbook**

The following textbook is required:

*Online Weather Studies (Textbook) and Investigations Manual 2009-2010/Summer 2010*; ISBN 13: 97818782200936 (packaged as a “bundle”)  
Copyright 2007 American Meteorological Society.

If ordering from another source online, pay close attention to shipping time - you need the book NOW - not in 2-3 weeks! You may also be able to find the text at a used bookstore that stocks college-level texts.

Be sure to get the 4th Edition. A student study guide for the text is also available (not required, but recommended).

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#### Computer Hardware and Software Requirements

The following minimum hardware is required:

- Pentium-generation with at least 1 Gb of RAM (more is better)
- Obviously, the above is for a Windows-type machine, but any newer Mac is fine too (e.g., iMac, G4 etc.)
- 56K modem or broadband Internet access. Dial-up is NOT recommended. Elmhurst College has a T1 line that is much faster. You may want to consider using that if your personal computer is too slow.
- Equally important is software. We suggest you use either Internet Explorer (IE) or Mozilla Firefox as your browser. Netscape does not work well with BlackBoard. In the past, students using AOL have had problems taking the course (for example they couldn't take the exams!). Avoid dial-up access at all costs!!
- If you need to upgrade (or change) your browser, you have 2 options: using your current browser (including AOL), go to either Microsoft or Firefox, and find, download or install the newest browser version. Unfortunately, unless you have a high-speed connection, this will take a while (you could leave the process running overnight, for example). Otherwise from the same sites, order the updates on a CD (usually costs \$5-10).
- This course requires Internet access; it is very important that your access be reliable. Loss of access while accessing the course site will result in significant problems and may adversely affect your grade. Therefore, it is strongly recommended that when you access the site, you do it at a location with a reliable network connection. This may include: Elmhurst College, a place of business with a dedicated Internet connection (your employer?), or a public library.
- If you find that you have technical troubles, it will be YOUR responsibility to access the site from a more reliable location. **There are NO makeup exams because of AOL logging you off or if your computer crashed!!**
- Occasionally, we have had students enrolled in the class who have been unable to log in from work. This is almost always due to security protocols with their workplace computer systems. YOU will need to make other arrangements if this happens!
- Finally - pop-up blockers will sometimes prevent exams and other pages from displaying (many sites from the course open in a new window). You may have to disable your pop-up blocker to fully enjoy the class! Sorry.

#### Security Issues

Every student has his or her own account for the online course. To prevent others from accessing your account, it is very important that you follow these three guidelines:

- Always exit IE or Firefox after each use. If you do not completely exit the program, another user will be able to access your account without having to enter a User ID or Password.
- Upon logging in, if IE or Firefox asks whether or not to remember your Login and Password, be sure to select NO. Selecting "yes" will allow another user to access your account without having to enter your User ID or Password.

- Never reveal your User ID or password to anyone.

This is especially important if you use the computer with somebody else - a roommate, younger sister, embittered spouse or significant other, etc. who might be inclined to hack away.

We take cheating seriously -- cheating is grounds for dismissal from the class, and possibly from the College. This rule applies to online courses as well as regular courses. Unless it is instructed for you to complete a group project, all work is to be done on an individual basis. Of course, you may collaborate with others in the class via e-mail and the discussion board, but "copying" is not allowed. **Any two assignments with too similar wording will be flagged and examined closely for copying. Collaboration and discussion – YES! Copying –NO!**

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### **Course Mechanics: How Does This Online Stuff Work?**

Meteorology 101-52 Online is completely online! You will find supplementary textbook information, links related to the material, exercises, discussion questions, and exams all on the course web site. All of the course activities are self-contained in courseware called BlackBoard, which runs through your browser.

Bottom line: if you are comfortable surfing the web, you should have very little difficulty navigating the course. If you are more of a novice, don't worry - by taking this course online, you'll quickly become experienced!

#### **BlackBoard**

When you first log into the course on BlackBoard, you'll be at the course homepage. Look around...from here you can go to one of several locations, including the modules, where the lecture material supporting the study unit is located. Look around and familiarize yourself with all the options available!

#### **Grading and Exam Timetable**

Your overall course grade will be earned (BY YOU!) by completion of the following:

- Weekly lab exercises
- 4 exams
- Comprehensive Final exam
- Participation in online discussion (Important part of your grade in this course)
- Grades will be posted after each week (usually Sunday night) so you can see your status in the course

In order to pass this course, you are expected to participate in online discussions. The topics of the discussion are assigned to each student (one question to answer per student each week or partners may also be assigned, but individual grades are given) and will be posted every week. They will generally focus on interesting weather, recent scientific articles, or other hot topics. They are referred to as "Critical Thinking Questions" (CTQs) because the answer will not necessarily be written in plain English in the text. They may require some investigation on your part. Many do NOT have right answers, but leave room for discussion. You are not graded on whether your response is technically right or wrong, but based on HOW you answer the question and if you have some evidence to justify your response. Your participation will be graded based on the quality of your work (including English style and level of scientific understanding). I have developed rubrics (see syllabus for the rubric) for you to examine. This tells you HOW the discussion posts will be graded. The level of your participation will also "count"...students who respond to other student's postings and who make interesting contributions are SURE to get higher grades than those who post, say, just one sentence. **Do NOT just post "I agree" or "good point!" That is NOT a viable post and you will NOT receive credit for those posts! Again, become familiar with the grading rubric.**

Put thought and effort into your responses. Quality is important here, not just quantity! Your grade for participation is based upon the frequency and content of your postings. Post often, but post well. Frequent posts with little or no substance will earn no credit. I strongly encourage each of you to check the discussion board contents regularly to see what your classmates think - it's a good way of keeping in touch with each other.

You must cite your sources correctly. A minimum of five (5) sources is required for full credit. Three (3) resources is an immediate "C". Use APA citation style. See rubric for further details.

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### **Class Policies**

All assignments, exercises, and exams must be completed by the given due date to receive credit. You must notify me in advance if you are unable to take an exam on time--and if you have a good reason. Otherwise, there will be NO make-ups on any assignment, exercise or exam. During the exams, you may not discuss, post, or comment on any exam question with anyone other than the instructor. This includes postings in the discussion area or via email. Students who violate this policy are cheating and will be dealt with as harshly as permitted under College Guidelines. This may include expulsion from the College. Again, you may, of course, discuss concepts with your peers, but **NOT** copy or share exam answers. Keep in mind each exam is different. You will NOT have the same exam questions as others in the course.

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I'm sure there will be questions as we move forward in the class, so please let me know via e-mail (if it is a private issue) or on the discussion forum, so that everyone may profit from your question.

The key to success in any online course is self-discipline, making sure you adhere to the agenda, and communication.

I wish you the best of luck. Remember, I'm here to help.

See you online.

***Dr. Schultz***

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