

# **MET1010 - INTRO TO METEOROLOGY**

**4 credit hours**

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## **Course Description**

A study of the structure of the atmosphere, weather processes, systems and phenomena; climate and climatic change, and economic impact of weather.

## **Course Prerequisite**

None.

## **Course Materials**

Textbook: The Atmosphere: An Introduction to Meteorology, 13th edition, Frederick K. Lutgens and Edward J. Tarbuck, Note: supplemental study materials will be provided by your instructor.

This course employs lecture capture software to provide you with videos of your instructor's lectures, PowerPoints, notes, demonstrations, etc. These videos can be viewed with a standard Internet connection. If your home Internet connection is not adequate, please remember that any NWFSC open lab is available to you. You need only take your own headphones with you. Your local library, Panera, and McDonalds have free wifi too.

### **REQUIRED MATERIALS:**

- Internet Access (broadband is recommended)
- Activated NWFSC E-mail Account

- Textbook

## **Contact Information**

I strongly prefer students contact me through email. If you wish to correspond with me via email, I will only respond to an official NWFSC email address. Please indicate the course name and section (**MET1010 M/W a.m.**, for example) in the subject line of your email so that I can identify which course you are taking. It is my policy to respond to all emails requiring a response, so if you sent a critical or important request to me and I did not respond within a few days, check to be certain that you sent it to my correct (and correctly spelled) email address and did so through Raidernet or D2L.

## **Student Learning Outcomes (SLOs)**

### **NWFSC DEPARTMENT OF NATURAL SCIENCES SLO'S**

NS-1: The student will demonstrate an understanding of the scientific method, distinguishing between fact, scientific law, hypotheses, and theory; and recognizing the difference between scientific and non-scientific explanations.

NS-2: The student will interpret data, given in problem form or obtained experimentally, in order to demonstrate problem-solving skills (critical thinking), develop testable explanations, or distinguish the difference between correlation and causation.

NS-3: The student will demonstrate fundamental knowledge of the terminology, major concepts, and theories of at least one field within the physical sciences, and in the biological sciences.

NS-4: The student will relate scientific discoveries and theories to broader areas of human concern.

### **COMPREHENSIVE (WHOLE COURSE) OBJECTIVES FOR MET1010**

MS-1: The student will demonstrate an understanding of vocabulary terms from each chapter covered by the instructor.

MS-2: The student will cite examples of meteorology-related events and their impact on humans and the environment.

MS-3: The student will demonstrate a basic understanding of scientific evidence supporting major concepts from meteorology and climatology.

MS-4: The student will demonstrate a fundamental understanding of the scientific approach to problem solving, including the interpretation of scientific data, either collected by the student or provided by the instructor, to determine relationships between causation and/or correlation of events.

## **Grading**

A = 90%-100%   B = 80%-89%   C = 70%-79%   D = 60%-69%   F = <60%

FA=Failure for not finishing or non-attendance

Grades will be based on total points earned from three sources: module exams, a comprehensive final exam, and lab-like activities, aka, "lactivities" which are your homework assignments.

## **MODULE EXAMS**

The course is divided into 5 instructional modules, most of which cover 3 chapters each. Each module will be assessed by a 100-point exam. Students are allowed two attempts at each exam, but the first attempt must be proctored by the instructor. If two attempts are made, the average of the two scores will be recorded in the gradebook. Following the first attempt, the student will be able to see their graded exam (a video demonstrating how to see previous attempts for exams is available under the Course Information section of the Content area). Some of the exam questions are selected randomly from the test bank by the computer, so your second attempt will not be identical to the exam from the first attempt, although the subject matter will be similar. At the end of the semester, the module exam with the lowest grade will be dropped when calculating the final grade for the course. Missed exams cannot be made up without a physician's note or other similarly valid written evidence. This grade will become the dropped grade.

*Note: If you want to retake a module exam, do not do so immediately after taking it the first time. Your instructor has seen this done hundreds of times, and almost never does a student's grade go up, and sometimes it goes down. The reason for a retake is so that a student can take a day or two to study the items they didn't understand from the first attempt. If you are not going to re-study this material, do not bother with the retake. Obviously, to be successful, you will also need to take your first attempt at least a day before the exam deadline to give yourself time to study.*

To discourage “cheating” and encourage “studying”, a time limit will be imposed on the second attempt for module exams since they are taken without a proctor. The time limit will be checked after each exam deadline and any student with questionable overtime will be asked for justification. The instructor may issue a grade of zero (0) for exams that are deemed to have abused the time limit. Discuss with the instructor any issue you may have with such time limits in advance of the first module exam.

## **LABTIVITIES**

Students will also be participating in at approximately 9 hands-on activities, called labtivities. Each labtivity will require you to either complete a short worksheet and upload it to the course drop box in D2L, take an online quiz to report your answers to a worksheet, perform a data gathering exercise, take a Google Earth tour and show what you have learned through an accompanying quiz, or write a short report. Labtivities are usually worth 10-25 points, but some may be worth considerably more. The grade for these labtivities will be included in the calculation of your final grade. Specific file formats are required for submitted work, and are usually listed with the assignments. Video tutorials for some computer operations, such as copying and pasting of graphs, are provided in the Content-->Course Information section of D2L.

## **MAJOR EXAMS**

The final exam will be worth 150 points. It will consist of questions pulled from the test bank for the previous module exams.

## **STUDY POINTERS**

Students are expected to do the assigned readings from the textbook. An excellent approach to this course is to read the assigned pages from each chapter, taking notes about key ideas or concepts that you think may be important. A video tutorial is provided in the Content --> Course Information section of the course's D2L website that will provide an orientation for effectively reading your textbook. After the textbook, watch the full lectures for each chapter which are provided in the Content section (under Lectures, listed by chapter) and, if available, study the supplemental materials that cover subtopics from the chapter. Topics and concepts covered in lectures are more likely to appear on exams than are those that the instructor does not address. In addition, concepts covered by labtivities are also more likely to be addressed in exams.

## **Incomplete Grades**

At the discretion of the instructor, an incomplete grade (“I”) may be awarded when the student is unable to finish the required work because of unforeseen extenuating circumstances such as illness or TDY assignment. To receive an “I” grade, the

student must have successfully completed a significant portion of the required coursework and be able to finish the remaining work without attending class. An “I” grade will automatically convert to a grade of “F” if the student does not complete the remainder of the coursework by the established deadline.

## **Make-Up Work**

The course follows a directed path with specific deadlines. If you need to deviate from the published calendar due to work or family emergency, notify your instructor as soon as possible to make arrangements for adjusting the calendar.

## **Class Attendance**

Students are expected to attend all of their scheduled classes, as attendance is one of the strongest predictors of success. To discourage tardiness and leaving early, attendance may be taken at the beginning of class and/or, if the instructor chooses, re-taken at the end of the class period. Therefore, arriving late or leaving class early may result in an absence being recorded. Three missed classes may result in a penalty of one letter grade (10%). Further missing classes may result in a lowering of the final grade by 5% for each absence beyond three. A student missing 25% or more of classes will receive a grade of FA.

I will try to finish each class on time, but occasionally we may need to stay a minute or two late. Attendance can be taken at any time, so arriving late or leaving early may result in being counted as absent. Leaving the classroom early without prior notification of the instructor will count as an absence.

Excessive absences, as defined in this course syllabus, may be reported to the Office of Financial Aid. Federal regulations require that students receiving Title IV aid must attend classes and have verified attendance in order to receive financial aid funds. This general policy applies to the student absent from class traveling as a member of a college group, or club or for personal reasons.

## **Assignments**

A calendar is provided in the Course Information area of the Content section. We will try to stay close to the schedule, but the pace of a course is difficult to anticipate. Also, should a “teachable moment” occur, such as a major disaster, it may serve us best to suspend the schedule and look into the scientific aspects. Therefore, consider the schedule tentative. If the class gets off schedule, a revised schedule may be handed out to replace the old one.

## Minimum Technical Skills and Special Technology Utilized

Students need to be familiar with using a computer, beyond just turning it on and surfing the web. We make extensive use of MS Word documents or Rich Text Format documents, Portable Document Format (pdf) files, and use MS Excel. You should be able to open these types of files, fill them in, and save them in the same format to complete assignments. If you do not have MS Office, be sure that the word processor and spreadsheet programs on your computer will open and save your files in these formats. Mac users can use iWorks programs, but will need to convert their files to non-Mac formats from the list below (Your instructor uses a Mac, but D2L Brightspace has a problem with these types of files). Also, Google Docs is free to use and will save (download) your files in .docx or .pdf formats. If you do not know how to save files or open them in the correct formats, "Google" it or send a help desk request to Distance Learning from the login page. Handwritten and scanned files are not acceptable for submission.

Thus, some homework assignments (worksheets, etc.) will need to be uploaded to the D2L Brightspace dropbox and must be in a format that can be read by computers other than your own. To assure your work can be viewed and graded, you will be directed to upload your work in one of these formats:

- .doc or .docx (MS Word compatible)
- .pdf (Adobe Reader compatible)
- .rtf (Rich Text Format, a universal format for all word processors)
- .xls or .xlsx (MS Excel compatible)

We may also taking a narrated virtual field trips around the world using the free software Google Earth. A link for downloading this software is provided below. The files we will be using with Google Earth will only run on actual computers (not tablets or phones) with good, fast, reliable internet connections. If you do not have this, you may come to campus to use computers or possibly find suitable computers at the local library. If you simply cannot use Google Earth, a low-resolution alternative is provided in the form of streaming videos of the tours we will be taking using this software.

Download Google Earth here:

<http://www.google.com/earth/download/ge/agree.html>

In addition, students may need one or more of the following plug-ins:

- Adobe Acrobat Reader:
  - <http://www.adobe.com/products/acrobat/readstep2.html>
- Windows Media Player:
  - <http://windows.microsoft.com/en-US/windows/download-windows-media-player>

- QuickTime Player:
  - <http://www.apple.com/quicktime/download/>
- Adobe Flash Player:
  - <http://get.adobe.com/flashplayer/>

Be sure that the word processor and spreadsheet programs on your computer will save your files in the formats listed above. Mac users can use iWorks programs, but D2L does not upload/download these files sometimes, so either compress the file into a zip file or save in a MS Office format. For PC users, there is a free alternative to MS Office is Open Office (<https://www.openoffice.org>). Also, Google Docs is free to use and will save (download) your files in .docx or .pdf formats. If you do not know how to save files or open them in the correct formats, “Google” it or send a help desk request to Distance Learning from the login page. Handwritten and scanned files are not acceptable for submission. This is the digital age, so learn how to complete these tasks. In some cases, your instructor may provide a brief “How to” video to assist you with a task. Look under Course Information for tutorial videos if you need some assistance.

## **Videos**

This course employs lecture capture software to provide you with videos of your instructor’s lectures/PowerPoints/notes/ demonstrations, etc., and you are required to watch these. These videos can be viewed with a standard Internet connection. If your home Internet connection is not adequate, please remember that any NWFSC open lab is available to you. You need only take your own headphones with you. Public libraries may also have provide good connectivity. If you have a laptop, consider other public sources for WiFi.

## **Cell Phone/Electronic Devices**

Cell phones, pagers, and other such electronic devices must not distract from learning. Courtesy to the professor and other students requires that phones be on vibrate or silent mode during class. No student should initiate conversations, including texts, during class activities. Use of electronic communication devices during examinations or other graded activities may constitute grounds for disciplinary action; such devices must be completely out of sight during exams or other assessments. Where emergency or employment situations require access to electronic communication services, arrangements may be made in advance with the instructor.

## **Emergency College Closure**

In the event of unusual or extraordinary circumstances, the schedule, requirements, and procedures in this course are subject to change. If the college closes for inclement weather or other emergency, any exams, presentations, or assignments previously scheduled during the closure period will automatically be rescheduled for the first regular class meeting held once the college re-opens. If changes to graded activities are required, students will not be penalized as a result of the adjustments, but will be responsible for meeting revised deadlines and course requirements.

## **Student Rights, Responsibilities, and Academic Integrity**

Students are responsible for adherence to all college policies and procedures, including those related to academic freedom, cheating, classroom conduct, computer/network/e-mail use and other items included in the Northwest Florida State College Catalog and Student Handbook. Students should be familiar with the rights and responsibilities detailed in the current Northwest Florida State College Catalog and Student Handbook. Plagiarism, cheating, or any other form of academic dishonesty is a serious breach of student responsibilities and may trigger consequences which range from a failing grade to formal disciplinary action.

## **Resources**

### **The Academic Success Center (ASC)**

The ASC is located in the Activities Center on the Niceville Campus. The ASC provides free learning support services such as tutoring, ESOL, and writing assistance for all NWFSC students. Individual and group tutoring is available in a wide range of subjects on a walk-in-basis and by appointment. For more information, call the Academic Success Center at (850) 729-5389 or visit our website at: [Free Tutoring](#).

### **Reading to Learn (R2L)**

R2L is a project of Northwest Florida State College designed to support students' learning through direct instruction of reading strategies. Students may access R2L at our website: [Reading to Learn](#).

### **Math Labs**



Math Labs are located in the Math Building L, Room L-131, on the Niceville Campus and in Building 7, Room 702 on the Fort Walton Beach Campus and Room 131 at the Crestview Center. The math labs are open to all students and provide free walk-in tutoring for all mathematics courses. For lab hours, students may call the Math Department at (850) 729-5377 or visit our website at: Math Lab.

### **Smarthinking**

Smarthinking is an online, real-time tutoring offered free to students, who may access this service via RaiderNet.

### **Open Computer Labs**

There are numerous open computer labs throughout the Northwest Florida State College campuses. Students may access our website for lab locations and hours at: Computer lab location and hours.

### **Testing Center**

Testing Centers administer college admissions tests, placement tests, proctored exams, ACT/SAT, GED, CLEP, and DSST (formerly known as DAN TES).

Testing Center hours may be accessed on the Testing Center website at: Testing Center. Makeup exams may be taken in the Testing Center, depending upon instructor policies on late work.

### **Library, Online Reference Materials, and Resources**

The library is a comprehensive, learning resource center providing information in print, digital, and multimedia formats to support the educational objectives of the College. In addition to in-house materials, online services and resources can be accessed through the LRC website. Library hours are posted each semester at the building entrance and on the LRC website at: Learning Resource Center.

### **Assistance for Military and Veterans**

Northwest Florida State College supports our military and veterans students. You may contact NWFSC Eglin AFB Education Services Building at 850-200-4180 or NWFSC Hurlburt Center Educational Services Building at 850-200-4190 or visit our website at: Support Our Military.

## **Students with Disabilities**

Northwest Florida State College supports an inclusive learning environment for all students. If you have disabilities for which accommodations may be appropriate to assist you in this class, please contact the Office of Disability Support Services on the Niceville Campus, or call 850-729-6079 (TDD 1-800-955-8771 or Voice 1-800-955-8770).

Follow this link for information on accessibility features in NWFSC's Learning Management System (LMS), Desire2Learn.