A. COURSE INFORMATION

Course number/section: ATSC2301.001
Class meeting time: MW 2:00PM-3:15PM
Class location: ECDC Math & Science Addition 107
Course Website: http://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION

Instructor: Chuntao Liu
Office location: NRC3510
Office hours: MTW 09:00AM-11:00AM
Telephone: 36-825-3845
e-mail: Chuntao.liu@tamucc.edu
Appointments: by email

C. COURSE DESCRIPTION

This course is an introduction of the basic concept of meteorology. The focus is on the measurements of the atmosphere and weather related phenomenon. The principle of the instruments used to measure temperature, pressure, moisture, radiation, precipitation and other weather related properties of the atmosphere will be introduced. The differences among the observations from in situ, balloon borne, airborne, and satellite borne instruments will be examined and discussed.

D. PREREQUISITES AND COREQUISITES

None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook
None. There are plenty of materials online, which will be given during the class

Optional Textbook(s) or Other References

The cloud collector’s handbook, by Gavin Pretor
The AMS Weather Book: The ultimate guide to America’s Weather
Radar for meteorologists -by Ronald Rinehart, fourth edition
Supplies
Students may wish to buy a binder (in which to keep your notes and assignments), and a set of colored pencils and/or pens. (Many students find it helpful to add color to lecture notes.)

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT
Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

The goal of this course is to provide the students with an opportunity to learn about the history and principle of the measurements describing the atmosphere and weather phenomenon. Students should be able to coherently illustrate, explain, discuss, critique, etc. basic concepts of weather related observations. Students should attend and participate in lectures and the field trip.

By the end of this course, for all components that are examined within each topic in the schedule, students should be able to:

1. Demonstrate understanding of the mechanisms of the various instruments in weather stations, such as thermometer, barometer, hygrometer, and anemometer, as well as the principle of radiosondes and dropsondes.
2. Demonstrate fundamental understanding of meteorological observations from both surface and upper atmospheric in situ measurements.
3. Demonstrate ability to interpret remote sensing observations including weather radar reflectivity graphs and satellite visible and infrared images.
4. Communicate the research in a professional and effective manner

G. INSTRUCTIONAL METHODS AND ACTIVITIES
Lectures, instruments demonstrations, and field trips

H. MAJOR COURSE REQUIREMENTS AND GRADING
Your final letter grade will be based on the percentage you earn out of a possible 100 points, which are distributed as follows:
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<td>Quizzes</td>
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Statistical manipulations (e.g., curving) may be performed once—at the end of the semester—not for each examination. The final grading scale will also be determined at the end of the semester, but the cut-off for each grade will be no higher than the following: A $\geq 90\% > B \geq 80\% > C \geq 70\% > D \geq 60\% > F$

Lecture Examinations: In this course, one midterm and one final examination will be given.

Lecture examinations may consist of essay, short-answer, compare-contrast, fill-in-the-blank, multiple-choice, matching, making and/or labeling drawings, and/or various types of “flex” questions (i.e., anything is fair game).

Assignments: In this course, assignments related to the lecture content will be given. They will be due in a week. It is important to finish assignments and return your answers on time. Late hand in will not be accepted.

Quiz: Quiz will be given during the lectures to test on student’s understanding of the lecture and course related materials.

Bonus Points: Individual extra credit is not possible, but extra points are built into all examinations (as extra questions). At least 20 bonus points are available in the option of final project. Such opportunities may be announced only once, so be in class/laboratory, be on time, and stay for the entire period. Bonus points cannot be made up—period.

I. **COURSE CONTENT/SCHEDULE**

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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

ATTENDANCE POLICIES:
My attendance policy is the same as that stated in the University Catalog. Attendance is the student’s responsibility, and students are expected to attend, be on time for and remain the entire period in every class. Attendance is not used to determine grades. In lecture, even when I take roll, I do not give—per se—a bonus for attendance, nor a penalty for absence (except for missing an examination, bonus points, or an assignment). (Note that I may choose to have “pop” quizzes, and/or “attendance” quizzes as part of the bonus points.) Coming to lecture on a regular basis should result in a higher grade, and if you come to class often, it will help you do well in this course.

Absences: You are responsible for the material covered and assignments made in every lecture regardless of whether you attend it. “I came in late and didn’t hear about the assignment,” is never an acceptable excuse. It is always your responsibility to determine what happened in class during your absence. If you are absent, tardy, or leave early, I will provide you with copies of assignments (including “bonus point” assignments) and handouts if—and only if—you ask for them. (In other words, I will not, “track down” absenteeees to make sure that they know about assignments.) You must obtain class notes from other students. Because developing note-taking skills is a necessary skill, I do not “share” or “post” my notes or PowerPoints.

Points missed because of an unexcused absence (including tardiness and leaving early) cannot be recovered. An excused absence allows us to make alternative arrangements for completing assignments. The documentation required for an absence to be excused must be...
• from an appropriate source (e.g., doctor, dentist, funeral director) who states the
nature of the event that caused (or will cause) your absence.

- in writing, on official stationery, and signed. (I do not return excuses to you.) Telephone calls, FAXes, and e-mails are not acceptable.
- presented prior to the absence for a scheduled event (e.g., university-sponsored activity, recognized religious holiday, military service).
- presented no more than one week after the date of an unexpected absence.

There Are NO Individual Make-up Examinations: The grading formulas above give you three chances to earn points from lecture examinations: method 1 or 3 if you miss one lecture examination; method 1 if you miss more than one lecture examination; method 2 if you miss the final examination.

Miscellaneous Policies Regarding Attendance:

Unacceptable Excuses: Once enrolled in a class, it is the student’s responsibility to arrange his or her schedule (work and personal) so that no regularly scheduled class or examination time is missed. Only unavoidable absences are excused, so routine personal events (e.g., vacations, weddings, birthday celebrations, reunions, non-emergency medical or dental visits, parent-teacher conferences, household or auto repairs) should be scheduled to avoid conflicts with classes. Oversleeping is never an acceptable excuse. Employment conflicts and school or work interviews should be arranged to avoid conflicts with your classes and are not acceptable excuses for absences, tardiness, or leaving class early. Texas waives jury duty for students, so jury duty is not an acceptable excuse.

“Pre-Tests”: For some scheduled events (athletics, military duty, etc.), you may arrange to take a lecture examination before (but not after) its scheduled date. (You should take a test as close to its originally scheduled time as possible, but you may not take a test more than one week before its originally scheduled time. You must obtain your instructor’s approval at least one week before you wish to take the pre-test.) If you arrange to take any test at an alternate time and do not show for that appointment, then you forfeit the opportunity to take the test except at its originally scheduled time. Students who do not arrange to take examinations in advance will not be eligible for this special consideration. A written excuse from the university department involved or from the Office of Student Engagement and Success is required.

The instructor—in consultation with Dr. Don Albrecht, Vice President for Student Engagement and Success—will determine if circumstances warrant giving an individual a make-up test after the original test. A make-up test given after the original test will be all written (i.e., no multiple choice or matching), and it will be administered on the “Reading Day” for the semester.

Late Assignments: You may always turn in assignments early. Except for excused absences, late assignments will not be accepted. If you know in advance that you will have an excused absence when an assignment is due, you must turn in that assignment before its due date. You should turn in assignments that were missed because of an
unexpected, excused absence as soon as possible.

Any situations for which you cannot provide an acceptable excuse as outlined above (e.g., “I have an excuse, but it is too personal to discuss with you”) will be referred to Dr. Don Albrecht, Vice President for Student Engagement and Success.

**EXPECTATIONS:** You are adult university students. I will treat you as such, and I will expect you to act as such.

You will act with courtesy and common sense. I will not tolerate disruptive, disrespectful, or abusive behavior/language (including comments made on class assignments) directed toward anyone in this class (i.e., student or instructor). Violations range from talking during class to outright insubordination, and will result in penalties that range from the student being asked to stop to the student being “escorted” from the class—permanently. Cellular phones, pagers, and other “beepers” must be silenced BEFORE you enter the classroom. Children are not allowed in the rooms during lecture periods, or when the child’s guardian is working or studying “after hours.” Use of tobacco products (of any kind) is forbidden in lecture.

You will act like a responsible adult. You are responsible for your own education. You should not expect an instructor to take you by the hand, show you everything you need to know, and then have you regurgitate this information on an examination. This is not an effective way for self-motivated adults to learn. Students are responsible for all class and lecture notes; required assignments in the textbook and any additional handouts or assignments given by an instructor. This includes (but is not limited to)...

- Knowing and meeting university-imposed deadlines (e.g., withdrawal dates of various types). This information is found in the online University Catalog, Course Schedule or elsewhere on the University website.
- Knowing and meeting assignment dates and times—including any changes that may occur during the semester.
- Checking your answers against a key as soon as possible. By all means check for any clerical errors, but a test score is not the end of the learning process. Always review your tests to determine why you missed questions. Making—and correcting—mistakes is an effective, natural way to learn material. Educators have a fancy term, reflective learning, for this simple process.
- Keeping track of your progress (i.e., your grades, points you earn, and averages).
- Asking for help. Instructors are available for consultation and extra help, but it is the student’s responsibility to request help.

Learning is more than just reading, taking notes, and memorizing. Reading and taking notes puts information in short-term memory where it is forgotten quickly unless you do something with it. Memorizing, though important, is but the first step in the learning process. As university students, you should be able to link, combine, and synthesize the bits of data that you memorize into useful concepts.
Scholastic dishonesty will not be tolerated. It will be prosecuted to the full extent of university regulations. All students are expected to be familiar with the Academic Honesty Statement found in the University Catalog. In addition, the following procedures will be enforced:

- You must be prepared to present a photo ID at all examinations.
- Different test forms may be prepared for a single examination. To ensure that the appropriate key will be used to grade your answer sheet, always follow instructions on the test or answer sheet, or given orally by the instructor.
- If you leave an examination room—for any reason—you must hand in your answer sheet and you will not be allowed to resume the examination. Attend to personal matters (e.g., rest room visits) before the examination.
- Be on time! Anyone arriving after the first test-taker has completed an examination and left the room will not be allowed to take that examination.
- Cheating and plagiarism are unacceptable behaviors.

Students are not to give or receive help during testing
Students are not to submit any work that is not their own product

IMPORTANT MISCELLANEOUS NOTES:

- Follow instructions! The most common mistakes that cost students points result from failure to follow instructions.
- Bring two #2 pencils to each lecture examination (including the final examination); I neither provide nor sell pencils. (I will provide Scantron sheets for you.)
- Bring paper and a writing implement to each class period. Handwritten assignments will be accepted only if they are written in pencil, blue ink, or black ink. (You will get a permanent “zero” on the assignment if you write with anything else.)
- Grammar counts—period! Poor grammar will cost you points—especially on assignments and presentations.
- Spelling counts! To even be considered for partial credit, your answer must phonetically sound like the word that you are trying to spell. Examples of answers that are incorrect:
  - Grossly misspelled words (e.g., “crevurfian pleat” for “cribriform plate”).
  - Ambiguous answers (e.g., “tibula”—could be “tibia,” could be “fibula”).
  - Illegible answers (e.g., “ep-squiggle-squiggle-squiggle” for “epididymis”).
- After an assignment is returned, you have one (1) week to notify me of clerical, mathematical, and/or other errors. I will rectify any such errors, but I will not change a legitimate grade just because you “need” it.
- I will not change a legitimate course grade just because you “need” it either (for financial aid, to get into professional school, etc.). The grading section of this syllabus describes how I assign grades. Please be sure you earn enough points to get the grade you want. There will always be someone who just missed a D, or a C, or a B, or an A. Although I reserve the right to curve, doing so is usually not necessary. (Curves are based on statistical analysis of the entire class’s performance, not on the needs of individual students.) I have to draw lines between grades, and no matter where I draw them, someone is on the wrong side. Don’t let that someone be you. You have plenty of help in my class. Take advantage of the resources I offer.
reasons for receiving a grade of “I” (incomplete) are clearly defined in the University Catalog; this “grade” cannot be used simply to prevent a student from receiving an unwanted grade in a class.

- I only discuss grades in person (i.e., I do not discuss grades or matters relating to grades over the telephone or by e-mail). If you wish to know your final grade before the official grade report is mailed to you, please see me in person or provide me with a self-addressed, stamped envelope.

**COMPUTER ACCESS:** Use of a computer is important to this course (and many others). Students will need a computer to access e-mail, listservs, the worldwide web, the Bell Library catalogs and databases, and to prepare written assignments and slide/poster presentations. Computers are available for student use in Computer Laboratories around campus. Computer Laboratories are staffed with helpful personnel, and have generous operating hours. The University sets up a computer account for each student, and it is available from the first day of classes. Call the Student Computer Helpline at (361) 825-5618 for more information.

**GENERAL DISCLAIMER:** We reserve the right to modify the information, schedules, assignments, deadlines, and policies in this syllabus if and when necessary. Whenever possible, we will announce such changes in a timely manner during regularly scheduled lecture or laboratory periods. We will not attempt to contact students who were absent when an announcement was made. Nevertheless, all students are responsible for abiding by all announced changes, and it is a student’s responsibility to obtain this information. In rare cases, some modifications may be implemented without prior warning.

**K. COLLEGE AND UNIVERSITY POLICIES**

- **Academic Integrity (University)**
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

- **Classroom/Professional Behavior**
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students
engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

• **Statement of Civility**
  Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• **Deadline for Dropping a Course with a Grade of W (University)**
  The grade of W will be assigned to any student officially dropping a course. Please consult with the instructor before you decide to drop to be sure it is the best thing to do. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Should dropping the course be the best course of action, visit the Office of the University Registrar for the Course Drop Form that must be submitted. No student is eligible to receive a W without completing the official drop process by this deadline. Please consult the Academic Calendar ([http://www.tamucc.edu/academics/calendar/](http://www.tamucc.edu/academics/calendar/)) for the last day to drop a course.

• **Grade Appeals (College of Science and Engineering)**
  As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at [http://www.tamucc.edu/provost/university_rules/index.html](http://www.tamucc.edu/provost/university_rules/index.html), and the College of Science and Engineering Grade Appeals webpage at [http://sci.tamucc.edu/students/GradeAppeal.html](http://sci.tamucc.edu/students/GradeAppeal.html). For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• **Disability Services**
  The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning
environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

L. **OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.