GEOG 413 – Applied Climatology

Section 001, 3 Credits
Fall 2009

Instructor: Dr. Darren B. Parnell
Office: Henson Hall 157E
Office Hours: MWF 10 – 11 a.m.; Th 9 – 11 a.m. (also by appointment)
Phone: 410-543-6459
E-mail: dbparnell@salisbury.edu
Class Meetings: MWF 9 – 9:50 a.m.; Henson Hall 156

Text: Russell D. Thompson and Allen Perry. *Applied Climatology: Principles and Practice*, 1st Edition. Routledge, 1997. ISBN 041514101X

Course Description: This course provides a detailed examination of the science of Applied Climatology. The objectives of this course are to introduce and discuss the fundamentals of climatology in order to understand how these concepts can be used to solve environmental problems. In addition, students will gain an understanding of how applied climatology is used in everyday planning and operations. Emphasis is placed upon many of the influences that climatic phenomena have on humans and various aspects of the environment.

Exams: This course has a total of three exams worth 170 points each. Exam questions will come from class lectures and the textbook. Each exam will be administered as scheduled. All exams count for a portion of the final grade; none can be dropped.

Make-up Exams: Any student missing an exam will be required to take an alternative examination. It is the **student's responsibility** to inform the instructor of the missed exam **within one class day** after the original exam is given in order to schedule a make-up exam. Anyone failing to comply with this policy will receive a zero for the missed exam.

Exercises: This course has a total of seven exercises worth 30 points each. The exercises are designed to reinforce the lecture material.

Class Research Project: As part of the requirement for the course, you will be required to participate in a class research project (field exercise) that involves collecting temperature data and albedo values for various building materials across Salisbury University. The data collected will be statistically analyzed to determine if significant differences exist between mean temperatures of the building materials and to determine the relationship between the collected temperature and albedo values. I will present the results of this group project during the final two weeks of the semester. Full participation in the class research project is worth 30 points.

Semester Project: As part of the requirement for the course, you will be required to undertake a research project applying actual climatological data toward the solution and/or improved understanding of some climate-related problem of significance. Upon completion of the research you will be responsible for a 10-20 page (typed, double spaced) paper and an approximately 10 minute oral class presentation (to be presented sometime during the final two weeks of the semester). The written portion will be graded based on the soundness and thoroughness of your research method(s) and the organization and overall quality of your writing. A hard copy and an electronic file of the final paper are due by the final day of classes. The semester project is worth 220 points and the semester presentation is worth 30 points.

Weather Forecasting Contest: All students in this class are strongly encouraged to enter the department's weather forecasting contest. The forecasting contest consists of two forecasts per week, submitted each Monday and Wednesday, that predict the weather for the following Tuesday and Thursday. The forecasting contest will begin on Wednesday, September 9 and end on Wednesday, December 9. You will receive more information concerning the contest in class.

Grades: This course has a total of 1,000 points. Each student's grade for this course will be determined by a percentage based on the total points accumulated by that individual, divided by the total number of points possible (1,000). Letter grades will be assigned as follows:

Letter Grade	Percentage of Points	Total Points
A	90.00 – 100%	900 – 1,000
B	80.00 – 89.99%	800 – 899
C	70.00 – 79.99%	700 – 799
D	60.00 – 69.99%	600 – 699
F	0.00 – 59.99%	Below 600

Attendance: Attending class is important. Coming to class, paying attention and taking notes is perhaps the best way to learn the course material. Most lectures will come from the textbook, but some material will only be presented in class.

Classroom Environment: Students are expected to contribute to an environment appropriate for learning that considers and respects the needs and rights of others. Any academic misconduct will be confronted and handled accordingly. **Please silence all electronic devices while in class**. Do not arrive late and do not leave early.

Academic Integrity: Cheating, plagiarism and other forms of academic dishonesty will not be tolerated in this course. Students should pay special attention to the expectations discussed in the Student Handbook and 2008-2010 University Catalog. As commonly defined, plagiarism consists of passing off as one's own ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of that person. Violating these rules will result in significant grade penalties up to and including a failing grade for the course. Extreme cases of academic misconduct can result in expulsion from the University.

Writing Across the Curriculum: All writing assignments, both formal and informal, are in support of Salisbury University's Writing Across the Curriculum Program.

Important University Dates for Fall 2009
Last day to drop/add – Friday, September 4, 2009
Last day to withdraw from course to receive a "W" – Friday, October 30, 2009
Commencement Exercises – Saturday, December 19, 2009

Changes to Syllabus: This syllabus may be modified or changed by the instructor as necessary. Students will be notified of the changes in class.

Approximate Schedule – Applied Climatology – Fall 2009

Week	Date	Subject	Chapter
1	M, 8/31	Introduction	1
	W, 9/2	Instruments and Statistical Methods **(Exercise 1)**	2 & 3
	F, 9/4	Instruments and Statistical Methods	
2	M, 9/7	**Labor Day – No Class!**	
	W, 9/9	Animal Responses to Climate **(Exercise 2)**	11
	F, 9/11	Animal Responses to Climate	
3	M, 9/14	Comfort, Clothing and Health	12
	W, 9/16	Comfort, Clothing and Health	
	F, 9/18	Comfort, Clothing and Health	
4	M, 9/21	Comfort, Clothing and Health	
	W, 9/23	Town Planning, Architecture and Building **(Exercise 3)**	13
	F, 9/25	Town Planning, Architecture and Building	
5	M, 9/28	Town Planning, Architecture and Building – Exam Review	
	W, 9/30	**Exam #1**	
	F, 10/2	Industry and Commerce	14
6	M, 10/5	Industry and Commerce	
	W, 10/7	Transport Systems	15
	F, 10/9	Transport Systems	
7	M, 10/12	Transport Systems	
	W, 10/14	Agriculture and Fisheries	16
	F, 10/16	Agriculture and Fisheries **(Exercise 4)**	
8	M, 10/19	Agriculture and Fisheries	
	W, 10/21	Water Budget: Concepts	
	F, 10/23	Water Budget: Concepts & Applications **(Exercise 5)**	
9	M, 10/26	Water Budget: Applications **(Exercise 6)**	
	W, 10/28	Water Budget: Applications – Exam Review	
	F, 10/30	**Exam #2**	
10	M, 11/2	Recreation and Tourism	18
	W, 11/4	Recreation and Tourism	
	F, 11/6	The Energy Sector **(Exercise 7)**	20
11	M, 11/9	The Energy Sector	
	W, 11/11	The Energy Sector	
	F, 11/13	Climate Extremes as a Hazard to Humans	23
12	M, 11/16	Climate Extremes as a Hazard to Humans	
	W, 11/18	Weather Modification	
	F, 11/20	Weather Modification	
13	M, 11/23	**A Day Off To Work On Semester Projects**	
	W, 11/25	**Thanksgiving Break – No Class!**	
	F, 11/27	**Thanksgiving Break – No Class!**	
14	M, 11/30	Class Research Project Presentation	
	W, 12/2	Semester Presentations 1	
	F, 12/4	Semester Presentations 2	
15	M, 12/7	Semester Presentations 3	
	W, 12/9	Semester Presentations 4	
	F, 12/11	Semester Presentations 5	
		Final Exam – Friday, December 18, 8:00 a.m.	