

Syllabus: Math 204-A
Special Topics- Chaos Theory
Spring 2024

Instructor: Dr. Hundley

Office: Olin 222

Office Hours: Monday, Friday at noon, Wed and Thu at 3PM (or send an email to schedule at another time).

Contact info: *Office Ph:* 527-5151, *Email:* hundledr@whitman.edu

Class Website: <http://people.whitman.edu/~hundledr> . Occasionally I will put things on Canvas (and will let you know in class).

1. **Text:** A First Course in Chaotic Dynamical Systems: Theory and Experiment. By Robert L. Devaney.

Author's Website: <http://math.bu.edu/DYSYS/applets/>

The current plan is to cover most of this text, and I may possibly supplement with other material as well.

2. **Technology:** Experimentation is key to understanding the nature of dynamical systems. We'll be using Maple and Matlab, and we'll discuss how to use both of them on your home computers.

3. **Grading Criteria.**

- (a) **HOMEWORK (25%):** Homework that was marked with an asterisk will be due each Wednesday (for the week prior). For example, the homework assigned during week 1 will be due on the Wed on week 2. You'll upload these solutions to Canvas. Solutions to your homework should include a statement of the problem, and all statements you make should be in complete sentences.

Where appropriate, you should end the problem with a statement summarizing the solution. You're at the point in your mathematical education where we want to start looking at how you are communicating.

Homework is graded on a 3-point scale: 3 points is like 95%, 2 points is like 85%, 1 point is like 75%.

Late homework: If your homework is late, you'll receive a penalty. Once we've taken the exam, homework on that material may no longer be turned in.

- (b) Some homework will need to be typed up. We'll learn how to use LaTeX to do these, and this work will also be counted as "homework" (in the 30%).
- (c) **EXAMS (60%):** We will have two in-class exams, each will be worth 30% of your overall grade. A portion of the exam may be take-home.

- (d) **FINAL PROJECT (15%):** You'll do a full paper on a final topic in place of your final exam. The due date will be the starting time of the final, so be sure to plan accordingly.

GRADING: Grading is done on a standard scale:

$A = 92 - 100$ $A- = 90 - 91$ $B+ = 88 - 89$ $B = 82 - 87$ $B- = 80 - 81$
 $C+ = 78 - 79$ $C = 72 - 78$ $C- = 70 - 71$ $D = 60 - 69$ $F = 59$ and below

4. **Academic Honesty.** Academic standards will be *strictly* adhered to as outlined in the College's policies. This means that cheating will not be tolerated. Looking at another student's exam or quiz (whether or not you mean to copy answers) while taking it will be considered cheating. *Please don't test this policy!*
5. **Academic Resource Center (ARC)**
If you are a student with a documented disability who will need accommodations in this course, please meet with the Academic Resource Center for assistance in developing a plan to address your academic needs. Please contact me in advance of each session where you will need accommodations
6. **Please be courteous to your fellow students:** No electronic devices should be used during class (please put away your phone!), with the exception of tablets on which you're making notes. (NO laptops unless you've cleared it with me).
7. **Be sure to check your Whitman email at least daily.** I will occasionally send out important information about the class via email.

Religious Accommodations:

In accordance with the College's Religious Accommodations Policy (link below), I will provide reasonable accommodations for you if, because of religious observances, you have conflicts with scheduled exams, assignments, or required attendance in class. Please review the course schedule at the beginning of the semester to determine any such potential conflicts and let me know by the end of the second week of class about your needs for religious accommodations. If you believe that I have failed to abide by this policy, the link to the grievance policy is also included below, as per state law.

Link for the College's Religious Accommodations policy:

<https://www.whitman.edu/campus-life/diversity/intercultural-center/religious-and-spiritual-life/religious-accomodations>

Link for the College's Grievance policy:

<https://www.whitman.edu/human-resources/grievance-policy>

Link for the Washington State law:

<https://app.leg.wa.gov/RCW/default.aspx?cite=28B.137>