Professor: Jim Hoste, F210, x73258, jhoste@pitzer.edu

Office Hours: M 3-4, W 11-12, F 1-2 and by appointment

Class Time and Place: MW 1:15-2:20, BH 110

Texts:

1. Chaos, Fractals, and Dynamics, Robert L. Devaney
2. HTML, XHTML, and CSS, Sixth Edition (Visual Quickstart Guide), Elizabeth Castro

Our primary text will be the book by Devaney, and we will try to cover Chapters 1-10. Additional topics from other sources may be included if time permits. We will be using the computer program Mathematica to perform all the necessary calculations for the course. Students will need to write simple Mathematica programs and modify more complicated ones provided by the instructor. No previous programming experience is expected. The Claremont Colleges have a site license, so Mathematica should be available in student computer labs on every campus. The terms of the site license allow students to obtain a copy of the software to install on their own computers. Ask your campus IT staff about this.

In addition to learning how to use Mathematica, students will be expected to make a web page and display there some of the pictures we will be making of fractals. We will use the Castro text to obtain a basic knowledge of HTML code. No previous experience writing HTML or making web pages is expected. In order to make your web page “live” on the internet, you may need to talk to your IT staff. (The instructor will take care of this for Pitzer students.)

There will be 10 weekly homework assignments due every Wednesday, except March 7, March 14, April 18, April 25 and May 2. These assignments will comprise 40% of the course grade. Each homework assignment will be done in the form of a Mathematica Notebook and e-mailed to the instructor when done. Homework is due by midnight on the due date. Late homework will be penalized according to the following schedule:

<table>
<thead>
<tr>
<th>hours late</th>
<th>penalty</th>
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<tbody>
<tr>
<td>0–24</td>
<td>25%</td>
</tr>
<tr>
<td>24–48</td>
<td>50%</td>
</tr>
<tr>
<td>&gt;48</td>
<td>100%</td>
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</tbody>
</table>

There will be one midterm exam given in class on Monday, March 5. This test will count for 25% of the course grade. There will be a written individual project due on April 23 that will count for
20% of the grade. The project may be about any topic related to the course. In addition to the written component, the project will include a 15 minute oral presentation to the class sometime during the last two weeks of the semester. The oral presentation will be worth 10% of the class grade. Each student must choose a topic and have their project approved by March 28. More information regarding what is expected will be given in class in March. The final 5% of the course grade will be based on attendance. Up to two class meetings may be missed without penalty.

THERE WILL BE NO MAKE-UP EXAMS! If a student misses the midterm for a good reason (illness, family matters, athletic events, etc.) they will not be penalized. Exams missed without a good reason will earn a score of zero.

More information related to the course, including the homework assignments, will be posted on the course webpage. The webpage may be found at the Instructor’s website,

http://pzacad.pitzer.edu/~jhoste.