Instructor: Dr. Saša Kocić
Office: Hume Hall 312
Office hours: TTh 10:00-11:00 am, or by appointment
Email: skocic@olemiss.edu Phone: (662) 915-7582

Course Information

H. Scott Dumas: The KAM story: a friendly introduction to the content, history and significance of classical Kolmogorov-Arnold-Moser theory

Time/Place: TTh 2:30-3:45 pm, Hume Hall 331

Course description

This is the second in the sequence of dynamical systems courses. Dynamical systems is a major mathematical discipline closely intertwined with many other areas of mathematics. The course will cover some topics in circle maps and Hamiltonian dynamics, and introduce students to KAM theory and renormalization methods.

Evaluation

Two tests will be worth 20% of your grade, homework 20%, participation 30% and the final exam will be worth 30% of your grade. The following scale will be used to determine your final grade. Your course grade will be based on your percentage score (S) and determined according to the following scale.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>90 ≤ S ≤ 100</td>
<td></td>
</tr>
<tr>
<td>A-</td>
<td>87 ≤ S &lt; 90</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>85 ≤ S &lt; 87</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>80 ≤ S &lt; 85</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>77 ≤ S &lt; 80</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>75 ≤ S &lt; 77</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>70 ≤ S &lt; 75</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>60 ≤ S &lt; 70</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>S &lt; 60</td>
<td></td>
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</tbody>
</table>

Homework

Homework will be assigned occasionally. If you have any questions about the homework, do not hesitate to stop by my office!

Midterm tests

Both tests will count equally. The lower test grade will be replaced by the final exam percentage grade if that improves a student’s overall grade. There will be no make-up midterm tests (except those authorized by the University). If a student has a valid reason for missing a test, documentation must be provided (e.g., a doctor’s note) and the final exam grade will be rescaled accordingly. Students may choose to do a project and an in class presentation instead of taking the tests.

Additional Policies

Any student who must miss a scheduled exam because of an official university function must reschedule with the instructor to take the exam at a time before the exam is scheduled to be given. Official documentation must be provided. An I grade will not be given without the permission of the Department of Mathematics. Every student must take the final exam at the time scheduled.

Attendance and Participation

Attendance is mandatory! Students may have at most two undocumented absences. Any additional absences not documented by a doctor’s note or an official letter from the University will result in the decrease of the student’s participation grade. Participation may include in class presentations.
Academic honesty

The following statement is the policy of Department of Mathematics regarding academic honesty: cheating on any exam, quiz, classwork, or homework, theft of exam questions or possession of exam questions prior to the time for the exam shall all be offenses subject to the appropriate penalties. The penalty for commission of any offense set out above is failure in the course, and subject to the approval of the Chancellor, dismissal or suspension from the university.

Withdrawal deadline

Withdrawal deadline for the 2017 Fall semester is Monday, October 2. After the Course withdrawal deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.

Important Dates

Test 1: Thursday, September 28.
Test 2: Thursday, November 9.
Final: Tuesday, December 5th, 2017 at 4 pm.

Academic needs

It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Contact will then be made by that office through the student to the instructor of this class. The instructor will then work with the student so that a reasonable accommodation of any disability can be made.