Faculty Sponsor: Marcus Roper
Research Mentor: Mike Lindstrom (instructor)
Office: MS 5622
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Weekly Group Meetings and Lectures: Mon 6-7 pm (MS 6229), Wed 6-7 pm (MS 6229), Thurs 9-10 am (MS 5117)

Course Description: Studying homeless movements in Los Angeles through data science, machine learning, and modelling

Expectations:

Researching and coding simulations:	4-6 h/week
Report Writing:	0-2 h/week
Weekly Meetings/lectures:	2-3 h/week

Grading Scheme:

Attendance and Research:	45% (attending meetings, task work and completion)
Oral Exam:	20% (individual questions about the math and work)
Final Presentation:	10% (presenting the work as a group to public audience)
Midterm Report:	5% (written report of overall findings mid-quarter)
Final Report:	20% (written paper of overall findings of the work)

Week	Research Activity
1	Research meetings and/or lectures
2	Research meetings and/or lectures
3	Research meetings and/or lectures
4	Research meetings and/or lectures
5	Research meetings and/or lectures **F: May 4th – Midterm report due by 5 pm**
6	Research meetings and/or lectures
7	Research meetings and/or lectures
8	Research meetings and/or lectures
9	Research meetings and/or lectures
10	W: June 6th Final research meeting & practice presentation **R or F: Final presentation**
Exam Week	**M-F: Oral exams** **R: June 21st – Final report due by 5 pm**

* Lecture topics could include: *logistic regression, topic modelling, artificial neural networks, convolutional neural networks, clustering algorithms, numerical approximations to partial differential equations, etc*. Not every week will have a lecture; some of these topics may be covered and others not listed may be relevant.