

Computational Modeling and Simulation

Fall 2016 – Modern Tools for Exploring Data

CS 1025 01 8 MWF

CS 1025 02 12 MWF

ITTC 134 (*StudioIT 1*)

Mark Jacobson

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Office hours: 9–11 MWF in 307 ITT;

9–12 T WRT 338A; 2–4 MW in 338A

and by appointment almost anytime

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VIP: Please notify in advance by email or after class whenever possible! Appointments are best and can also be arranged almost anytime outside of office hours and on weekends too. Note that I have two offices (ITTC 307 and WRT 338A).

Fall 2016 class schedule: 8:00 MWF; 12:00 MWF; 8–9:50 Th; 10–11:50 Th; 1–2:50 Th

Grading on exams, homework and quizzes.

1. **Two tests will count for 40 %.** The first test will be tentatively scheduled for Friday, October 14th. The second test will be tentatively scheduled for Friday, November 18th.
2. **The take-home final exam period project/activity for about 10 % of your grade.** The final is scheduled for 8-9:50 a.m. and for 1–2:50 pm on Monday, December 12th. The final exam will be a take-home test and an in-class final exam period activity (Ghostbusters, Pretty Woman, Dances With Wolves, Much Ado About Nothing wrap up rap and class discussion).
3. **Class participation/citizenship/attendance will count for 5 % of your grade.** Taking notes and having your notebook out is part of class participation. Being an active, helpful part of group exercises and an EXCEL-lent model of a UNI Panther student citizen in the hopefully lively DAYS OF OUR CLASSES is an essential part of class participation.
4. **The homework assignments and projects will be worth 45 % of the total grade.** Some of the homework assignments will be completed and checked off in class. Some of the assignments will be done within or submitted through UNI eLearning.

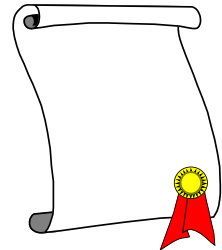
Where to use Scratch, Autodesk Maya, Adobe After Effects, Adobe Flash, NetLogo, Excel and Vensim at UNI:

- **Adobe After Effects is FREE** for a 30 day trial period. Labs that will have Adobe After Effects on campus: Lang 213 lab has it on PCs. The KAB labs have After Effects on Macintosh computers. The Production House on 2nd floor of ITTC has After Effects. **Adobe Flash** is available in all of the SCC computer labs (*Library, Maucker Union, Towers, Redeker, Roth, Campbell, Lawther, Schindler and the Wellness Center.*
- **Ventana Vensim is FREE** and easy to install. Vensim is available in all of the SCC (Student Computer Center) labs. Also the CNS (College of Natural Sciences) computer labs. Wright Hall labs, ITT 335 lab just down the hall from my 307 ITTC office, McCollum Science, and all CNS labs have Vensim.
- **NetLogo is FREE** and easy to download and install. NetLogo is available in all the CNS labs. Wright Hall and ITT 335 are probably where most of you would access it. It is available in the Union, Redeker, Towers, Campbell, Lawther and all of the SCC labs.
- **Microsoft Excel** is not free but is available in every lab on the UNI campus. It is available to UNI Panthers (students, staff, and faculty) at very low prices through the CCC (Computer Consulting Center) on ground floor of the ITTC building (old East Gym). We won't do too much Excel, so you certainly will be able to easily complete those assignments in an SCC lab (Student Computer Center) such as the Rod Library or Maucker Union or any CNS lab or any lab on campus. Microsoft Office is available everywhere at UNI.

- **Scratch is FREE.** We may or may not get to the Scratch software. It is very easy to use and learn.
- **Autodesk MAYA is FREE** for a 30 day trial and free for 36 months to students and faculty. It will be available in many labs at UNI.
- **This class has no prerequisites. No previous computer experience is assumed in this LAC course.** You will be given extensive lab and hands-on experience and support material with each software package for the things you need to do with it. The support material will include handouts, examples very similar to what you are assigned, online video demonstrations and tutorials.

Miscellaneous topics:

- Any student who requires some modification of seating, testing, or other class requirements should speak with the instructor at the beginning of the semester.
- When sending email, sign with your first name at the end of the note. *Sign your first name to email notes, always!!!!*
- Feel free to leave early for an appointment or whatever as that is never a problem but it is always nice to be told before class starts.
- The four classes **CS 1000, CS 1010, CS 1020 and CS 2880** give you **computer applications certification** from the computer science department. 12 hours of credits is required. There are lots of options besides these classes that can be substituted. You will be allowed to use this CS 1025 Modern Tools for Exploring Data / *Computational Modeling and Simulation* class to substitute for CS 1000.
- CS 2880 (Topics in Computing: ???) also counts for certification. It is offered every semester. It can be substituted for 810:021 or 810:023 or 810:030 or can be taken as an extra class in addition to the 021, 022, 023 and 030 certification classes. It can be repeated as a different topic. It is offered regularly as Maya 3D Graphics (Fall 2008, Spring 2009, Fall 2009, Fall 2012, Spring 2013, Fall 2013) or as Visual Effects, Animation, and Motion Graphics (summer 2009, spring 2010, fall 2010, fall 2011 and spring of 2012).
- CS 2880 11 Topics in Computing: Maya 3D Graphics will be offered again in 2017, i.e. in the spring of 2016. Maya has won 3 academy awards and is extensively used in the movie and game industry. This counts toward the certificate in computer applications!
- CS 2880 12 Topics in Computing: Visual Effects, Animation, and Motion Graphics will probably be offered again in Spring of 2017. This class counts towards the certificate in computer applications.
- Check the web site for our class often. It will have class lecture and lab reviews, links to the free downloadable software, details about assignments, announcements and reminders of quizzes, a class calendar, video tutorials and more.
- It is best to email me or talk with me before or after class to let me know you want to stop by, even if it is office hours. I have other appointments so if we arrange ahead of time a certain day and time and office (WRT 338A or ITTC 307), it is guaranteed that I am there in the office and there are no other appointments at the same time.
- Some extra credit is available after you take the 2nd exam. There are NO exams after the 2nd exam. That means you have a less stressful finals week! ☺
- I have taught Chemistry, Sociology, Tae Kwon Do, Mathematics and Computer Science at UNI. I have taught classes at University of Iowa in the School of Social Work, the Computer Science department, and Weeg Computing Center.



<http://www.cs.uni.edu/~jacobson/1025/12/>

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“Colonel Cathcart was a slick, successful, slipshod, unhappy man of thirty-six who lumbered when he walked and wanted to be a general. He was dashing and dejected, poised and chagrined.” Catch 22 by Joseph Heller (in honor of August 22nd, your first day of classes at UNI!

Question: How does this relate to focus on grades and GPA versus focus on excellence and education and engagement? Monday 8/22 is Catch 22 day and Friday 8/26 is national dog day. Something to remember 4 and 5 and 20 years from now.