

# Computational Modeling and Simulation

Spring 2011

ITT 322 9:00 a.m. MWF

Mark Jacobson

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**Office hours: 1:00-3:00 MWF;**

*and by appointment almost anytime*

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Computer Science department: 273-2618

URL: **<http://www.cs.uni.edu/~jacobson>**

**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.**

Spring 2011 class schedule: 9:00 MWF; 11:00 MWF; 09:30 TTh; 2:00 TTh

Textbooks: **Turtles, Termites, and Traffic Jams by Mitchel Resnick**

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## Grading on exams, homework and quizzes.

1. **Four quizzes will count for 20 %.** These will be a 25 minute long quizzes, taking up just part of a class period. The first quiz will be sometime in early January and will be announced ahead of time in class and on the web page.
2. **The final exam counts for about 25 % of your grade.**
3. **The laboratory and lecture sessions and class participation/citizenship/attendance will count for 10 % of your grade.** Taking notes and having your notebook out is part of class participation. Being an active, helpful part of group exercises and a good model of a UNI Panther student citizen is 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 the lab classes.

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## Where to use Adobe After Effects, 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. You will be able to get a free 30 day trial of Adobe After Effects, so I will have all of the assignments occur during a 30 day window, so you can work on your laptop or desktop and not have to come to campus. You can also use After Effects in this building: 108 ITT is the Production House. Its hours are 8 a.m. until 5 p.m.
- **Adobe Flash** - We will also use Flash for some of the assignments. Like After Effects, its free for 30 days.
- **Ventana Vensim is FREE** and easy to install. Vensim is available in all of the CNS (College of Natural Sciences) computer labs. Wright Hall labs, ITT 335 lab just down the hall from ITT 328 classroom, the StudioIT ITTC labs, 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 here are probably where most of you would access it. It is also on the StudioIT labs computers, for our hands-on lab classes on 2<sup>nd</sup> floor in StudioIT 1 ITT 134 classroom/lab.
- **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, very reasonable prices through the MyUniverse. It is \$65 last time I checked, but that includes Publisher, Excel, Word, PowerPoint and Access. 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.
- **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. Lots of demonstrations will be shown in class too.

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### 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.
- **810:022** (Microcomputer Systems) is offered every fall. It focuses on Adobe Dreamweaver, Adobe Flash and Adobe Fireworks and will emphasize web publishing, motion graphics and computer graphics. It will introduce students to Excel VBA macros. It will also cover some Photoshop and Illustrator.
- 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 **810:021, 810:022, 810:023** and **810:030** give you **microcomputer certification** from the computer science department. 12 hours of credits is required. I will allow 810:025 to substitute for 810:021 or 810:030, so you would only need 3 more classes and 9 credit hours to get the certificate.
- 810:088 (Topics in Computing: ???) also counts for certification. It is offered almost 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, and Fall 2009) or as Visual Effects, Animation, and Motion Graphics (summer 2009, spring 2010, fall 2010).
- 810:088 Topics in Computing: Maya 3D Graphics will likely be offered again in the Spring of 2012.
- 810:088 Topics in Computing: Visual Effects, Animation, and Motion Graphics will be offered again in the Fall of 2011.
- 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, and more.



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<http://www.cs.uni.edu/~jacobson/025/>

<http://www.cs.uni.edu/~jacobson/025/r/>

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<http://www.cs.uni.edu/~jacobson/studioITfall2010.txt>

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StudioIT 2 (room 136) is reserved for 810:025 EVERY FRIDAY THIS SEMESTER, except for February 25<sup>th</sup> (We will meet on February 23<sup>rd</sup> instead that week).

**StudioIT 2 ITT 136 on 2<sup>nd</sup> floor reserved on 14 Fridays and one Wednesday.**

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