

Computational Modeling and Simulation

Fall 2011

9 MWF Lang 213

Mark Jacobson

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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.

Fall 2011 class schedule: 9:00 MWF, 11:00 MWF; 9:30 TTh; 12:30 TTh

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

Grading on exams, homework and quizzes.

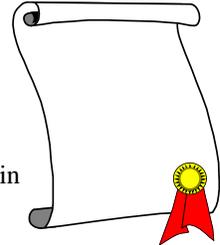
1. **Six quizzes will count for 30 %.** These will be 25 minute long quizzes, taking up just part of a class period. The first quiz will be sometime in September and will be announced well ahead of time in class and on the web page. The 5th and last quiz will be on November 16th.
2. **The final exam counts for about 15 % of your grade.** The final is scheduled for 10-11:50 a.m. Wednesday, December 14th. The final exam will be at least in part, if not completely, a take-home test.
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 a good model of a UNI Panther student citizen is part of class participation.
4. **The homework assignments and projects will be worth 50 % of the total grade.** Some of the homework assignments will be completed and checked off in class. Many of the assignments will be done within or submitted through UNI eLearning.

Where to use 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. 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 use your own PC or Mac. *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 ITT 328 classroom, 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.
- **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.
- **810:022** (Microcomputer Systems) is offered every fall. It will emphasize Excel VBA macros (VBA = Visual Basic for Applications). It does some Adobe Flash and Adobe Dreamweaver too.
- 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 will be offered again in spring of 2012. 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 and fall 2011).
- 810:088 Topics in Computing: Maya 3D Graphics might be offered again next semester, i.e. in the spring of 2012.
- 810:088 Topics in Computing: Visual Effects, Animation, and Motion Graphics will probably be offered again sometime in 2012.
- 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. At a certain point, we will use mostly UNI eLearning and Blackboard for all course materials, but <http://www.cs.uni.edu/~jacobson/025> will clearly communicate when that occurs and offer the link.
- I am also going to be teaching an online section of this class also offered this fall.
- There will be different required assessments during the semester that will be graded pass/fail to get full credit. Thus there will be no pressure to be perfect on them. In November the assessment questions you have received throughout the semester will be seen again to see if your quantitative thinking and problem solving ability has improved as a result of the class and how much.



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

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