Spring student orientation 2018

Mark Corner
Director, MS program
mcorner@cs.umass.edu
Orientation overview

Now...

- Focus on MS-specific issues
- Scheduling classes
- Terminal MS vs. PhD-preparation MS
Topics I’ll try to cover

- Advising
  - Advisors
  - Assistantships, etc.
  - Terminal MS vs. PhD-preparation MS

- Department life
  - Office space
  - Research talks
  - “Professionalism” seminars

- Courses
  - Requirements
  - Core courses
  - Planning your schedule
First, who is the MS program?

- Incoming class of 25 students
  - Mix of PhD, MS, Bay State students

- Joining 504 continuing students
  - 28% from US
  - 47% from India
  - Also China, Iran, Germany, Nepal, Russia, ...

- Where do MS students go (of 32 entering in 2015)?
  - 24 MS-only degrees were awarded in May & Sept
  - 6 moved into our PhD program (1 left for another PhD program)
  - 1 student is still active (part-time), 1 left the program
Topics

- Advising
  - Advisors
  - Assistantships, etc.
  - Terminal MS vs. PhD-preparation MS

- Department life

- Courses
Your academic advisor

- Mostly for coursework advising (unless you are a PhD student)
- Will cover almost everything later in this talk
- Advisor of record for all MS students is ... me
- To make an appointment
  - Email me: mcorner@cs.umass.edu
Research advisor

- A few of you will get involved in research
- Supervising faculty = research advisor
- Can provide academic advice, too
Professional v. research-track

- Professional MS means you stop after the MS
  - AKA “Terminal MS”
  - Bias toward 500-level courses
  - Likely to be focused on classwork rather than research

- Research track MS means you intend a PhD next
  - Bias toward 600-level courses
  - Will want research experience
    - Letters of reference
  - Look for project- and research-oriented classes
  - Consider research seminars in areas of interest
  - Independent studies sometimes possible
Funding

- Teaching assistantships (TA)
  - Only eligible for Graderships, not “full” TAs

- Hourly Positions
  - Check *Handshake (CICS Career Services)*
  - Check *UMass OSE Job Board* - http://www.umass.edu/umfa/seo/umass-amherst-student-job-board

- Fellowships
  - Look around for them
  - Harder to find for MS-only students, but they exist
  - NSF Fellowship for eligible research-oriented MS students
Topics

- Advising
  - Advisors
  - Assistantships, etc.
  - Terminal MS vs. PhD-preparation MS

- Department life

- Courses

Questions?
Topics

- Advising
- Department life
  - MS space
  - Research talks
  - “Professionalism” seminars
- Courses
- Refreshments
Office space: CS building and LGRC lowrise
LGRC lowrise, 3rd floor

- Computer Science occupies much of this floor
- Masters’ space is at northwest end
MS space: LGRC lowrise, 3rd floor, north end

- Rooms A313 and A317
- Keypad entry via A313
- A315 is kitchen / lounge
Topics

- Advising
- Department life
  - Office space
  - Research talks
  - “Professionalism” seminars
- Courses

Questions?
Research talks

- Usually there is at least one per week
  - Hiring, visitor, faculty, students, thesis defense, etc
- Some accessible, some not
- Some interesting to you, some not
- Some even have snacks

- Go to a few (or more)
  - Particularly if you’re thinking of a PhD somewhere
  - But even if you’re just curious
- Find out what research is
- If nothing else, a way to put off homework
Professionalism seminars

- By faculty (or others) for students
- Touch on issues of “professional life”
  - As opposed to research talks
- Some targeted to PhD students, if you’re interested
  - PhD portfolio (“admission to PhD candidacy”)
  - Research methods
  - Writing a grant
  - How to be a successful PhD student
  - Getting a faculty position
- Some more broad
  - Ethics
  - Fellowships
  - More, we hope!
2018 CICS Spring Career Fair
Thursday, 02/9/2018
10:00am to 3:00pm
Campus Center

Career Development

- Undergraduate and graduate students from computing disciplines (CS, ECE, CSE, Informatics, IT) will have the opportunity to connect with company members of the college's Industrial Affiliates Program (IAP) and get advice on careers in computing. Bring lots of resumes! Business professional attire.

- Internship Opportunities

- More Info. on Handshake
Topics

- Department life
- Advising

Courses
- Requirements
- Core courses
- Planning your schedule
Requirements for the MS degree

- 30 credits of coursework at the 500+ level
  - Most courses are 3 credits, so 10 classes

- Constraints
  - Must take 4 core classes (more on this in a moment)
  - **At least 12 non-independent study credits at 600+ level**
    - **Means 18 at 500-level or independent study**
    - Suggest <= 6 credits at 500 level for research track
  - At most 9 credits from outside CS
    - Those require approval
  - Need C or better in classes and have GPA of 3.0 or better

- Transferring credits
  - Can transfer 6 credits (12 under limited circumstances)

- https://www.cs.umass.edu/grads/course-requirements-ms
Concentrations

*Data Science & Security*

*Information with slides was emailed out.*
Core classes

- Fall into three areas
- Must take one from each area
  - A.I.
  - Systems
  - Theory
- Plus one more from any area

- In case it isn’t obvious, that’s four core classes
What are the course classes (for MS program)

- **Systems** examples
  - COMPSCI 590S (systems for DS), 621 (s.eng), 630 (systems), 677 (o.s.)

- **Theory** examples
  - COMPSCI 501 (formal languages), 514 (algorithms for DS), 611 (algorithms)

- **AI** examples
  - COMPSCI 585 (nlp), 670 (vision), 683 (a.i.)

For the MS, basically any “real course” (not X91, X92 or X96) is now sorted into Core groups. PhD cores differ and students looking toward a PhD should follow the PhD core listings.

- **Grade of B or better in one from each group (plus choice)**
  - Goal is to test for and/or develop a comprehensive mastery of the subject matter (breadth)
Placing out of core requirements

- Sometimes you can place out of a core
  - We want to know that you have good *graduate-level* background in broad areas of computer science.
  - **We do not want you to repeat work you have already done (at graduate level)**
    - Mostly for PhD-only students with an MS degree, but...
- Speak first to professors teaching the core courses about possibly placing out of them
  - Commonly asked to take a different course
- Placing out does *not* give you transcript credits
  - Only satisfies core MS core requirement
  - Must register for something else to get credits
Planning your fall coursework

- Seems easy, right?
  - Take 4 core courses this semester
  - Then get the other courses done
  - Get them out of the way

- Strongly recommend slow progress on cores
  - By and large, core courses are more time consuming
  - Taking more than one core is not recommended
    - Some are easier to combine than others
  - Proceed very carefully here
Possible coursework plan (two years)

- First year, spring
  - 9 credits: One core and two non-cores
  - Pick different levels (500/600) & different areas
  - Get used to graduate-level classes
- First year, fall
  - 9 credits: Two core (different areas) and one non-cores
- Second year, spring
  - 9 credits: One core and two non-cores
- Second year, fall
  - 3 credits: one non-core
  - You’re probably looking for a job

Full-time for Intl. students requires 9 credits in all semesters except your final semester. Students may elect to move their 3 credits to the summer and finish in three semesters.
Masters project (research track, usually)

- 6-credit masters project (CMPSCI 701)
- Takes time of two graduate classes
- Typically research oriented
- Requires independent effort and self-motivation
- Plausible follow-on to class or other project
  - Unlikely to be available without prior work

- We do not have an MS thesis option
Core courses scheduled this academic year

### Spring 2017

- 501, Formal Lang. Theory
- 514, Algo. For DS
- 535, Architecture
- 589, Machine Learning
- 590/690B, Ntwrk Interference
- 590C- HCI
- 590/690IV, Visual Computing
- 590M, Simulation**
- 590U, Ubiquitous Comp**
- 590V, Visualization
- 601, Computation Theory
- 603, Robotics
- 630, Systems

- 645, Databases
- 650, Applied Info. Theory
- 660, Security
- 677, Operating Systems
- 682, Neural Nets (extra offering)
- 683, AI
- 688, Graphical Models
- 690N, NLP
- 690P- Secure Systems**

Students have until the end of add/drop to switch courses

Course offering plan
https://www.cics.umass.edu/content/course-offering-plan
Classes, registering

- If you haven’t already, please register for classes
  - http://spire.umass.edu

- It is common to “shop around” for classes
  - Attend first few lectures

- **Space is tight in some courses, though, so may not be possible**
  - Register if you’re pretty sure you’ll take a class
  - If you change your mind, drop the class ASAP
    - February 5th to have no record on transcript
Helping us plan ahead for classes

- MS progress form
  - https://fmserver1.cs.umass.edu/fmi/iwp
  - Select “GraduateStudent”
- Form shows your progress toward degree

Summary
- Program: Ms
- Track: F 2013
- Status: Active
- CS Username:

Completed Credits Breakdown:
- Independent Study (max 6)...
- Level 500 (max: P18, R6)...
- Level 600 (min 12)...
- Non CS (max 9)...
- Pass/Fail (max 6 inc IdS)...

Alerts:
- *Must have a Core from each area: 13
- *Must take 4 core courses: 3
- *For a core to be complete, requires B or better: 0

Credits: 16 listed below
16 completed, 0 in progress, and 0 planned
Last Updated: 4/8/2014 11:29:12 AM
Helping us plan ahead for classes

- Also lists classes you have or are taken (purple)
- And provides way for you to list your plans (red)
Some words about academic honesty

- **Academic honesty is expected and required**
- **In coursework**
  - Everything you hand in must be entirely your own original work or have appropriate citations to sources
  - If collaboration is not permitted, do not collaborate
- **In research**
  - Everything you present or write about must be yours or your collaborators and/or be appropriately cited

- **Cheating/plagiarism will not be tolerated**
- **University has academic honesty policy**
  - Informal resolution is common (3 strikes policy)
Topics

- Department life
- Advising
- Courses
  - Requirements
  - Core courses
  - Planning your schedule

Questions?