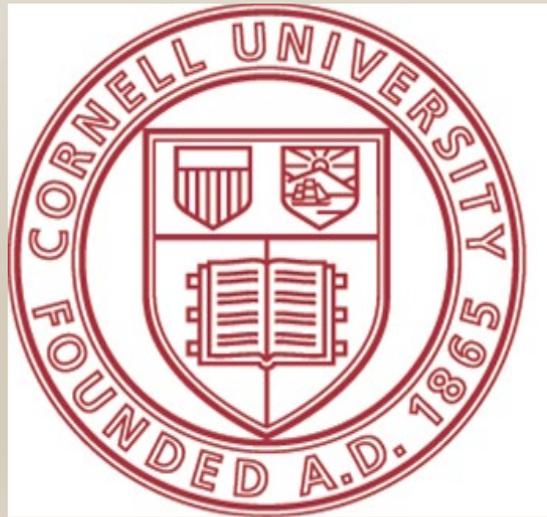


Welcome to Cornell University
Computer Science
Master of Engineering Program



What to expect today:

- **A brief introduction to the Department of Computer Science**
- **Overview of CS MEng Program and degree requirements**
- **A presentation on the administrative processes and requirements of the CS MEng Program**
- **Q &A**

Cornell

Computer Science Students

- We have about 100 CS MEng Students
- Currently there are about 900 undergraduate majors
- Currently there are about 150 PhD students and 10 MS students

Cornell Computer Science

- Computer Science is a Department in the “College” Computing and Information Science, or CIS
- The Dean of CIS is Greg Morrisett
- CIS is not a full college, so many academic functions are shared with Engineering
 - Including:
 - The College of Engineering Registrar
 - Engineering Career Services
 - Departmental and College Level IT support

MEng Program Overview

In order to meet degree requirements you must complete:

- 30 credits total (of course you can have more...just not less)
- 15 must come from Computer Science Courses
- Seminars and project credits do not count towards the 15
- 3-6 credits will be from a project (more on that later)
- Most courses are 4 credits so you will probably, over two semesters, complete six courses and a project

The fine print: more important than you might think

- At least 28 credits must be taken for a letter grade or only 2 S/U credits will count towards your degree.
- For a course to count towards your degree requirements, you must earn at least a “C-”
- For the project to count towards your project requirement, you must earn at least a “B”
- In order to remain in good standing and in order to graduate, you must maintain an overall GPA of 2.5 or higher.

Are there any rules for what courses I can take?

- All courses must be at the 4000 level or higher.
- Non-CS Courses (Electives) can be taken but must be:
 - Advanced (4000 and higher)
 - Technical (with some exceptions in the business school and Science and Technology studies.)
- Pre-approved Electives
 - There is a list (non-comprehensive) of pre-approved electives on the CS website
<https://www.cs.cornell.edu/masters/academics/preapprovedcourses>
 - If the course you want to take is not listed, send an e-mail to me with the course description, and a brief explanation of why you want to take the course.
 - Not all Non-CS courses are universally approved, and decisions are often made on a case-by-case basis.

Course Numbering

4000-level CS courses are typically for juniors, seniors and MEng students

- CS 4999, CS 4090 and CS 4998 do not count towards MEng degree credits.

5000-level CS courses are “classic” M.Eng courses.

- Note, some are doubly listed, e.g., CS 4740 and CS 5740. Usually exactly the same course. **Take the 5000 “version”.**

6000-level CS courses are typically for PhD students and exceptionally well-prepared* ugrads and MEng students.

***[this means A-level work in lower level version of the course]**

How long do I have to get all this done?

- The CS MEng Program is a two semester program.
- Some students begin the program while still undergraduates at Cornell and are able to finish in one MEng semester.
 - Those who begin as undergraduates are welcome to do a full two MEng semesters.
- If you feel the need to complete an extra (3rd) semester, you may do so with the following conditions:
 - You must request it prior to the pre-enrollment period for your third semester.
 - You must register as a full time student and enroll in no fewer than 12 credits.
 - You must take at least 8 credits of courses which could count towards your degree...i.e. 4000 level and above advanced and technical and for a letter grade.
 - In most cases where a student is unable to finish in two semesters unexpectedly, a third semester is allowed. Different conditions apply.

Balancing your course load = maintaining your sanity

- Try to balance the number of compute intensive courses with those that are less so.
- Limit the number of practicums you take each semester
- Pay attention to the work-load balance in the class:
 - Taking three courses each with a heavily weighted final project and little graded work the rest of the semester is not a good idea...review the syllabi before committing
 - A course with a limited number of graded work might sound great, until you find out the largest percentage of your final grade is based on the exam which covered stuff you missed while interviewing in the Bay Area and never quite mastered.
 - A course with a homework assignment due each week may sound like a drag, but there are more chances to bring up your grade after that disastrous pop-quiz the morning you arrived in on a red-eye from the Bay Area.

Some more stuff about courses

- When planning your two semesters, you can usually assume that most spring 4000/5000 level courses, if taught, will not be taught in the fall semester and vice versa.
 - There are exceptions to this depending on demand and instructor availability (4410, 4700, 4820)
 - When the Department administration is mapping out courses, they occasionally have to switch a course from one semester to the other to manage teaching loads, faculty leaves etc.
 - We try to do so only when the impact will be minimal, however, sometimes there is no choice and the change must be made.
- Courses taught at Cornell Tech in NYC are not available to Cornell students in Ithaca
 - There are a select few 6000 level courses taught via remote classroom between the two campuses.
 - These are limited to CS PhD students or for M.Eng students with special permission from the instructor.

CS Colloquium

- **Colloquium** is a one credit speaker series where invited speakers give talks on the research they are doing or other interesting topics.
 - Spring CS 7090 Computer Science Colloquium TR 4:15-5:15 Gates G01 1 credit S/U only
 - Can be taken both semesters
 - You are welcome to attend any and all talks you are interested in whether you are enrolled or not, but since there are no requirements to pass, you may as well enroll.
 - Information on the scheduled speakers is available here:
 - <https://www.cs.cornell.edu/events/colloquium>
 - And/or sign up for the colloquium mail list by Send an email to: CS-Colloquium-L-request@cornell.edu
 - Subject = Join
 - Message field left blank

CS Weekly Seminars

- **CS 7190 - Seminar in Programming Languages**
- **CS 7290 - Seminar on Scientific Computing and Numerics**
- **CS 7490 - Systems Research Seminar**
- **CS 7493 - Computer Security Seminar**
- **CS 7690 - Computer Graphics Seminar**
- **CS 7790 - Seminar in Artificial Intelligence**
- **CS 7792 - Special Topics in Machine Learning**
- **CS 7794 - Seminar in Natural Language Understanding**
- **CS 7796 - Robotics Seminar**
- **CS 7890 - Seminar in Theory of Algorithms and Computing**

What you need to know about CS Seminars

- A meeting of students and faculty engaged in advanced study and original research in a certain area of study to exchange information and hold discussions.
- Some of the CS seminars welcome all students
- Some require that the student be actively engaged in research in the seminar's area – ASK!
- Some seminars require presentation of your research.
- Some consider attending and participating in discussion to be enough.
- Many can be taken only for S/U not for a letter grade.

Taking Business School Courses

- Some classes offered through the Cornell College of Business are approved as eligible for CS MEng Credit.
 - Check the Pre-approved Elective webpage here:
<http://www.cs.cornell.edu/masters/academics/preapprovedcourses>
- The Cornell College of Business has a course enrollment procedure separate from the Engineering Registrar.
 - If you plan on taking B-school courses, you are responsible for reading the instructions for adding each course as they differ from course to course.
 - Enrollment conditions can be found on the course roster course description <https://classes.cornell.edu/browse/roster/FA18>
 - Some courses can only be added by non-MBA students after the first two weeks of classes. Please note, you must be sure you want to continue in the course because you will not be allowed to drop it without paying a penalty.
 - You are **not** guaranteed enrollment in B-school courses even if you attended the first two weeks of class.

Administrative Stuff

- Overview of all the administrative details which are important to know, but tedious to go over.
 - Presented in more boring Power Point slides
 - All the information will be available to you for future reference.
 - Not knowing the information or where to find it is not an excuse for neglecting to fulfill academic or administrative requirements.
 - I will try to cover everything as quickly, concisely and lively as possible.

Course Enrollment

- Done on line through Student Center
 - studentcenter.cornell.edu
- You *do not* need advisor approval to add/drop courses during the add/drop period

When?

An Add period at the start of each semester

A pre-enrollment period about $\frac{3}{4}$ through the semester before

Course Enrollment

- Deadline for adding courses online is **February 6, 2019**.
- Deadline for dropping courses is **March 19, 2019**
- If you wish to change credit hours (on credit variable courses only) you can do so until **February 6, 2019**
- If you wish to change grading option (i.e. S/U to Letter or Letter to S/U) you can do so until **March 19, 2019**
- Last day to add a course using a paper form without a petition **March 19, 2019**
- If you drop a course after the **March 19, 2019** deadline, a “W” will appear on your transcript. No exceptions.

Course enrollment: Good to know

- Any changes which happen after the **March 19, 2019** deadline must be processed with a petition.
- All petitions and paper add/drop forms need to be completed with and signed by Stephanie before being processed by the registrar's office.
- You are responsible for ensuring that dropping a course will not effect the completion of your degree requirements. It is usually a good idea to check with Stephanie to insure you have a reasonable course plan which allows you to complete all degree requirements.

- You will need an enrollment pin to add any CS courses (4XXX and 5XXX which are full.
 - Be sure to add yourself to the waitlist and you will be sent a PIN
 - You will have a limited time to use your pin
 - If you decide not to use the pin, please return it to the sender letting her know so she can open the spot for another student.
- If you are having difficulty adding courses on line, please contact Stephanie so she can advise on instructor permission, time conflicts or classes that are full.
- You will be sent reminders about the add/drop deadlines and should be certain to make sure you have added what you thought you added and dropped what you thought you dropped. It is especially important to make sure that your grading option is correct (Letter or S-U)

Project Information

Choosing a Project: How and When?

- Students must complete a Master of Engineering Project worth at least 3 credits, but no more than 6 credits.
- The Project can be done in the fall, the spring or both.
- A student can complete one project in one semester or two projects (one in each semester or two in one semester.)
- A student can work on the same project over two semesters or two separate projects one each semester.
- Whether you do one project or two, no more than **a total of six credits** will be counted towards the degree required 30 credits.
- The CS MEng Project does **not** count as part of the required 15 CS course credits.

Choosing a Project: How and When?

- How do you find a project?
 - Check out the list projects on the project portal
 - For CS Only Projects:
 - <https://csmeng-projects.coecis.cornell.edu/index.cfm>
 - For Projects offered to all M.Eng students:
 - <https://meng-projects.coecis.cornell.edu/index.cfm>
 - Come up with a project on your own or with a group, write a proposal and contact faculty members in the subject area to discuss if they would be willing to serve as your project advisor.
 - Check out the many Project Teams active throughout the College of Engineering, many need and want Computer Scientists to help with software development.
 - It is possible in some project-based courses to extend your course project to count as a separate MEng project.
 - Keep in mind that an additional and substantial amount of work will need to be done, your course project cannot “double” count as your MEng project. It is most reasonable to choose to do this sort of project the semester after the course, so the “starting point” of your MEng Project is the end point of your course project.
 - This option needs the support of the instructor teaching the course, and he/she should agree to this before the end of the course.

Adding Projects

- You can enroll in your project online until February 6th.
 - After the 6th, enrollment is done via paper add form and/or through Stephanie.
- To enroll in a project you need to sign up for CS 5999 under the section assigned to the faculty member who will serve as your project advisor.
 - If your advisor does not have a section, you should sign up under the “staff/Meik” section, but only if your advisor is a CS field or IS Professor without a CS 5999 section or has been pre-approved to serve as a “stand-alone” project advisor. Check with Stephanie.
 - If your project advisor is not a CS faculty or researcher, (and not pre-approved to serve as a “stand-alone” advisor you will have to find someone who has a CS 5999 section number to serve as an “in-house” CS advisor who will ultimately confer with your outside advisor and assign your grade.

- If your project is part of a project course in another field (ex. CUAUV or CU Air) you should enroll in the Project course associated with that project in the field it is offered.
- Be aware that some Project Team courses require a two semester commitment (usually fall followed by spring,) and you will have to complete work for both semesters to receive a grade.



- Do not enroll unless you have decided on a project and have a CS Faculty or researcher who has agreed to serve as your project advisor and has signed your project agreement form.



What is a Project Agreement Form?

A form that outlines your project work, signed by both you and the project advisor agreeing to what the expectations for a finished, grade-able project are.



CS M.Eng Project Approval Form

Name _____ Net ID _____ Date _____
Project Advisor's Name/Field _____ Advisor Net ID _____
CS Advisor (if different) _____ CS Advisor Net ID _____
Project enrollment course _____ Total # of Project Credits _____
Project Title _____

Expected Completion Date of Project: December _____ May _____ 20 _____

Brief Description of Project/Expectations/Time commitment: *(this is intended to be an agreement between student and project advisor, so please be in agreement on the details below.)*

Student's Signature _____ Date _____
Project Advisor's Signature _____ Date _____
*CS Project Advisor's Signature _____ Date _____
*(*If you are working with someone outside of CS but are enrolling under a CS faculty member's section, please have both sign.)*

Note:

1. Projects must be taken for at least 3 credits and for no more than 6 credits.
2. All projects must be taken for a letter grade.
3. Make sure you enroll in the correct course section (this will be the section associated with your project advisor's name).
4. If you are unsure how to enroll, please ask the M.Eng Office; this will prevent hassles later.
Your project will be considered complete when all of the following steps have been taken:
 - You submit any required documentation to your project advisor. (as determined by the advisor.)
 - You submit an electronic copy (PDF) of both your report to the CS M.Eng Office.
 - You receive a grade.

Please return this form to the CS M.Eng Office 110D Gates Hall before October 15, 2014
Completing and submitting this form is not a replacement for enrolling in your project.

Why a Project Agreement?

We are required to have documentation that we are aware of the projects being offered by faculty and completed by the students.

The form insures you and your advisor agree on the work required for the project and the time frame in which it should be completed.

When the end of the semester arrives and you “present” your final project work to your project advisor, you don’t want her to say you have additional work before being graded.

Once again...The form insures you and your advisor agree on the work required for the project and the time frame in which it should be completed.

Additional info:

- The form does not automatically enroll you in your project. You need to either add through student center, paper add form or through Stephanie
- Submit the signed form to Stephanie by March 1st.
- If you are working with a CS person who is not a CS field member and does not have a section, (i.e. a post-doc, PhD student or researcher,) you will need to enroll under the field member responsible for that individual (i.e. the PhD student's advisor, the faculty member the post-doc works with etc.) You will need the signature of both persons.
- Ask Stephanie if you do not know who to enroll under or who should sign your form.

Forms

- **Student Information Sheet** You have been sent a Google form which you should fill out and submit before the January 31st.
- **Degree Requirement Worksheet** use to plan courses to make sure you complete all requirements. (does not need to be turned in, but useful if you are asking for advice on course choices.)
- **Computing and Information Science Account Set up** read carefully for information on computing accounts and resources. Includes information on VPN, printing and mail lists.
- **Project Approval Form.** Complete and have project advisor sign once you have settled on a project. This agreement between you and your project advisor assures that you and he/she share consistent expectations. To be turned in when project is decided upon. Does not replace Student Center enrollment in project.

Course Planning Worksheet

- Please use this form to plan out your two semesters.
- It is useful for when you come to me and say... “I am taking these courses and I plan on taking these courses, will I be on track to graduate?”
- If the form is filled out, even if there are several options penciled in, I am better able to visualize that you will be fulfilling your requirements.
- There is no need to submit this to me.
- You do not need to complete it unless you are coming to me for advice on scheduling etc.

E-mail Lists

- You all have been added to the CS M.Eng Student mail list
 - This is first and foremost how you get information from me regarding administrative and programmatic issues.
 - Read my e-mail! I try to include information in the subject if the message is for a particular subset of students, but sometimes forget, so read stuff.
 - Sometimes I send messages about free food, sometimes about employment or internship opportunities.
 - Other mail lists include the MEng list, so you will get messages through that list for the Gates Hall Community, the CS Department and CS graduate students.
- If you are enrolled in Colloquium, (and even if you're not,) you can sign up to receive the announcements about the speakers by sending mail to: CS-Colloquium-L-request@cornell.edu

Academic Integrity

- “A Cornell student's submission of work for academic credit indicates that the work is the student's own. All outside assistance should be acknowledged, and the student's academic position truthfully reported at all times. In addition, Cornell students have a right to expect academic integrity from each of their peers.”
- Academic Integrity also is expected in all areas relevant to the “educational process, including University Resources.”
- Read full policy (highly recommended) here:
<http://cuinfo.cornell.edu/aic.cfm>

What are some examples of AI violations/offenses?

- Cheating on exams
- Claiming another's work as your own
- Providing another with solutions to homework, exam questions etc.
- Submitting the same work to fulfill two assignments in two courses for two grades.
- Working with another student on individual assignments and not citing each others' contribution. The key word here is "individual" assignment.
- Fabricating data
- Forging a signature to certify completion of a course assignment, pre-requisite or other official requirement.

What are some of the penalties?

- Lowering of an assignment grade
- Failing grade on an assignment
- Failing the course
- Suspension from Cornell
- Expulsion from Cornell

Why would I cheat?

- What if you are stressed and overwhelmed and just need to get it done?
 - Desperate times...desperate measures...not worth it!
 - **Ask for additional time, help, whatever...just do not resort to cheating!**
- What if you did not realize that what you were doing constituted cheating ?
 - Different institutions, cultures, academic environments have different policies and characterizations of what academic integrity violations are.
 - **ASK CLARIFYING QUESTIONS!**
 - **Cite any shared work...give credit where credit is due...**
- “Other people are doing it...”
 - So turn them in...
- “I am so smart I would never get caught...I can definitely beat the system.”
 - I wouldn't bet on it...and trying to prove your intelligence by cheating and most likely getting caught will definitely prove the opposite.

Social Integrity

- Everybody in the program is EQUAL regardless of undergraduate background, work experience, ethnicity, citizenship, gender, or sexual orientation.
- Zero tolerance for *any* disrespect that targets *any*
 - Student
 - Faculty
 - Staff Member
- If you witness or are the victim of any blatant disrespect or discrimination please bring the incident directly and immediately to Stephanie and or Professor Hirsh

What else do you need to know?

- Be aware of campus policy on downloading music and videos, copyright infringement and the other risks of file-sharing.
 - You can review the policies here: <https://it.cornell.edu/policy>
- CIS ITSG will not access your personal files unless it is warranted for legal or security reasons.
- Usage is monitored in a non-invasive way, but if there is evidence of abuse of resources, you may be subject to an investigation.
 - Be pro-active: if you are working on something (maybe your project) which will use a large amount of resources; server space, bandwidth etc. let ITSG know ahead of time and if necessary...
 - Ask CIS IT (ITSG) if they can provide extra resources.
- Do not use Cornell/CIS resources for personal businesses, illegal activity or other non-professional use.

M.Eng./MPS Study Space

- Rhodes Hall 153 and 163 (prox card [**CU ID Card**] access only)
 - Only CS M.Eng. Students and IS MPS Students are permitted to use the M.Eng/MPS Labs.
 - **It is not a public lab.**
 - Please do not let students who are not either CS MEng or IS MPS students into the space...if they are not able to turn the light green with their ID, they should not be in the space.
- CS and IS Masters students share all computing space, computers, displays, and printers.

- There are 11 computers in RH 163
 - All computers are set up with Windows
 - Please do not disconnect/remove peripherals
- Use University Wi-fi “Eduroam” for secure Wi-fi
- The displays in RH 153 have HDMI cables which you can use to connect your laptop
 - Students are responsible for providing any proprietary adapters etc. for connecting etc.
- Printing is on the Net Print Service. You should follow the instructions for setting up your Net Print account on the CIS IT information sheet you received in your packet.

More RH 153/163 Info:

- Lockers are available for student use.
 - Locks will be provided upon request and must be returned when you leave the M.Eng Program, (hopefully because you graduate.) We will set up a time when we are distributing locks, watch for the message.
- Keep lab clean, clean up spills, do not leave personal papers etc. lying around, use trash bins etc.
- Cleaning supplies are available in the kitchen area for you to use in case of an accidental spill.
- Be considerate of your peers, no loud music, raucous behavior, loud conversations etc.

- Please restrict phone usage to the hallways so you do not disrupt others working in the lab.
- Please only use phone booth for professional calls: i.e. phone interviews etc.
 - Do not occupy the phone booth for longer than is necessary.
- Basic office supplies will be supplied by the CS/INFO Graduate Office (stapler/staples/white board markers.) We will keep extras stored in the lab, send message to Stephanie (sam83) or Erin (epa37) if lab runs out.
- No eating or drinking in RH 163 computer areas.
 - Please restrict eating and drinking to lounge area, and again, clean up after yourselves
- Only use markers specifically made for white boards on the white boards. Again, these are supplied by the Graduate Offices 110 D and 104 Gates.
- Markers should not be used to write on desks, non-whiteboard walls, tables etc.

Beverage Area

- Free coffee, tea and hot chocolate is available and supplied by CS and IS.
- Coffee and Tea supplies are made available through the generosity of the Computer Science and Information Science Departments and will be re-stocked on a weekly schedule. If something is running low between re-stocking, please send e-mail to Erin epa27@cornell.edu and we will notify the supplier.
- MEng and MPS Students are responsible for keeping the beverage area clean
 - Wipe up spills, splashes and drips as they occur
 - Toss out empty sugar packets, tea bags etc. as you use them.
 - Rinse out sink after dumping stuff into it.

- Dishwashing liquid as are sponges and paper towels, will be supplied
- Please take responsibility for anything you use.
- The Keurig Coffee machine is plumbed into the water line and therefore the reservoir does not need to be filled. The k-cups are automatically discharged into a waste compartment after brewing, and this will need to be emptied on occasion. There will be directions in kitchen on how this is done.
- Please also check the water over-flow tray (under where you place your cup) and empty if it has water in it...helps prevent spills

- Abuse or misuse of the equipment, use of supplies or area in general will result in the removal or suspension of study space privileges.

Job Search stuff

- Submit your resume to the CS MEng resume book
 - Stephanie will request Resumes be sent in early February
 - Resume book is shared with companies who do not recruit on campus but are looking for talented CS Masters students.
- Sign up for Cornell Handshake
<https://cornell.joinhandshake.com/login>
- In order to be contacted about career fairs, tech talks, networking events, workshops etc. you need to have registered with Handshake and completed the tutorial.

Career Fairs:

- February 6th Engineering and Technical Career Fair
- Additional Career fair days early in the fall semester

- On campus resources:

- Engineering Career Center:
- Workshops available for:
 - Resume critique
 - Interviewing skills
 - Networking advice

Additional Resources

- A new website for CIS Professional Masters Students has been developed to help guide you through the process of finding post-graduate employment.
- <https://cis.cornell.edu/future-students/graduate-opportunities/professional-masters-students>
- The website will contain information, tips, Q&A, links to important resources and articles on preparing for your job hunt and navigating through the process of interviewing, fielding offers etc.

OTHER STUFF

- Participate in CS MEng social events
- Check out the many clubs and student groups around campus
 - <http://www.sao.cornell.edu/so/>
- Attend the many social and cultural events offered throughout the year
 - <http://www.cornell.edu/events/>
- Find information about life as a grad student at Cornell
 - <http://studentlife.gradschool.cornell.edu/>

Take Care of Yourself

- Sleep
- Eat healthy foods
- Relax
- Do something fun
- Spend time with other people – outside of the Lab and classes
- Stay in touch with family and friends
- Recognize signs of stress, anxiety, depression and seek help.
- Tend to yourself if you become ill so you do not become more ill. Rest!

Take Care of Your Peers

- If you notice someone looking, acting stressed, anxious or depressed, take a moment, ask them if they are okay, support them, suggest they talk to a professional, tell someone who can help them...be nice.
- If you notice someone not taking care of themselves, not getting sleep, eating poorly, never leaving the lab...help them. Be nice.
- If you have concerns for someone, who is not in immediate danger, and you don't feel comfortable talking to them, tell someone else about your concerns...me, a mutual friend, Professor Kozen etc.

Utilize the resources available from Gannett

CAPS —

(Counseling and Psych Services)

Let's Talk

Group sessions

Appointments