

Fall 2018 1



Getting Started in Computer Science Transfer Students

Department of Computer Science
<http://cs.gmu.edu/>
 Volgenau School of Engineering

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Agenda


PLEASE SIGN IN !!

- Department information
- General information
- Program information
 - The BS CS Degree Program
 - The BS ACS Degree Program
- What do I register for? **[Patriot Scheduler](#)**
- Questions?

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Department Info

- The CS Department office is located in the Nguyen Engineering (ENGR) Building, Room 4300
 - Department Chair: Dr. Sanjeev Setia
 - Associate Chairs: Dr. Mark Snyder; Dr. Elizabeth White; Dr. Pearl Wang
 - They oversee the undergraduate programs
 - CS Undergraduate Advisors: Ms. Lauren Reyna, Ms. Linda Sheridan
 - There are 50 full time Faculty in the Department and their offices are located on the 4th and 5th floors of the ENGR building
- We're part of the Volgenau School of Engineering (VSE) which contains the following Departments:
 - **COMPUTER SCIENCE**
 - Bioengineering
 - Civil & Environmental Engineering
 - Electrical and Computer Engineering
 - Information Sciences and Technology
 - Mechanical Engineering
 - Statistics
 - Systems Engineering & Operations Research



Mooney: Researching reputation system for Skyrim-like game.

NO ONLINE OR NIGHT CS CLASSES!!!

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General Information

- Activate your Mason ID and password at password.gmu.edu
 - All information to/from you and Mason is sent to your Mason email
- The CS Department website is cs.gmu.edu
 - It contains Student FAQs, contact information for faculty, course syllabi, jobs and student organization information
- The Mason Registration system is called PatriotWeb: patriotweb.gmu.edu
 - Use this website to register for classes
 - Using **Patriot Scheduler** will make registering much easier
 - Use this website to check your degree progress (DegreeWorks)
 - Use this website to check your advanced placement or transfer credit
- The Mason Catalog is online: catalog.gmu.edu
 - Check it frequently for reference to your degree requirements

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- The Mason Transfer Admissions website is: admissions.gmu.edu/transfer
 - Check it for AP/IB and Transfer equivalencies: <http://admissions.gmu.edu/transfer/transferCreditSearch.asp>
- George Mason University has an Honor Code
 - Make sure you understand what your responsibilities are.
 - Go to the Mason Honor Code website:
 - oi.gmu.edu
- The Computer Science Department also has an Honor Code for Programming Projects.
 - It is strictly enforced!
 - Look for it on the Honor Code page of the CS website:
 - <http://cs.gmu.edu/resources/honor-code/>

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Undergraduate Degree Programs

- We offer two undergraduate BS degrees:
 - BS Computer Science (BS CS)
 - BS Applied Computer Science (BS ACS)
- Both degrees require a minimum of 120 credit hours = 4 years full-time
- Other program options:
 - Software Engineering Minor (16 credit hours)
 - BS/Accelerated MS options (144 credit hours)

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Course Policies

- Course designations at Mason:
 - 100 level courses are typically for freshmen
 - 200 level courses are typically for sophomores
 - 300 level courses are typically for juniors
 - 400 level courses are typically for seniors
- Courses must be taken in sequence
 - Almost every course has a prerequisite chain
 - Prerequisites are enforced by the registration system
- You *must* earn a C or better in a CS or MATH class in order to take the follow-on course

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Repeat Limits & Termination

Courses offered by the VSE departments may be taken at most three times. Failure to pass a required Math or CS course after three attempts results in termination from the ACS or CS majors

Selective Withdrawal:

Every GMU undergrad is allowed three selective withdrawals where you can to drop a course after the drop date (but before the selective withdrawal deadline) - use these wisely!

One C-/D rule:

Computer science majors are permitted to use one "C-" or "D" grade within Major coursework toward graduation, as long as that course is not a prerequisite for another class.

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BS CS Educational Objectives

- The BS CS program is accredited by Computing Accreditation Commission of ABET (www.abet.org)
- The objectives of the BS CS degree are to provide our graduates with
 - *A foundation for successful careers in industry:*
 - graduates will have a broad understanding of the fundamental concepts, methodologies and tools, and applications of computer science.
 - *A foundation for graduate study:*
 - graduates of the program will have the academic preparation for successful completion of rigorous graduate programs.
 - *Professional preparation:*
 - graduates will have effective written and oral communication skills, and be able to work collaboratively in a professional and ethical manner.

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The BS CS Curriculum

- **Mason Core requirements (24 credits)**
 - *Foundation:* English composition courses
 - COMM 100 - Public Speaking
 - *Core:* Literature, Western Civ., Social & Behavioral Sciences, Global Understanding, Fine Arts
- **Major requirements (88 credits)**
 - Required CS courses (35 credits)
 - Mathematics and Engineering courses (20 credits)
 - CS-Senior elective courses (15 credits)
 - CS-Related elective courses (6 credits)
 - Natural Sciences (12 credits)
- **General Electives (8 credits)**
 - Note: Remedial math classes do not count towards graduation

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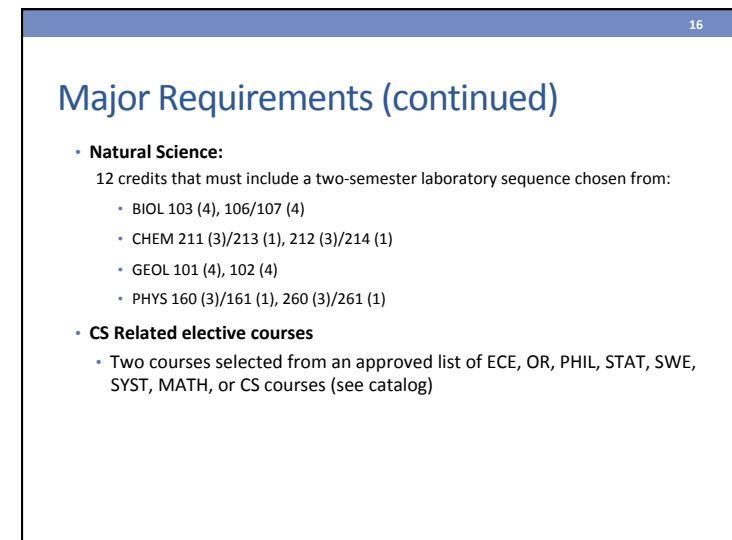
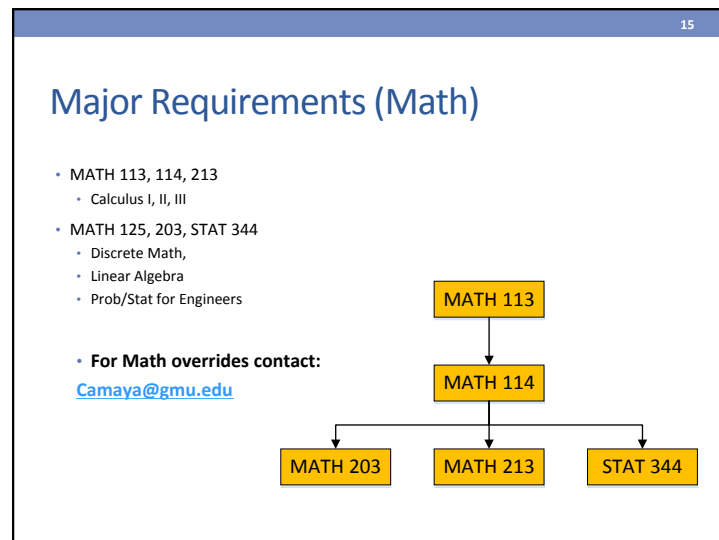
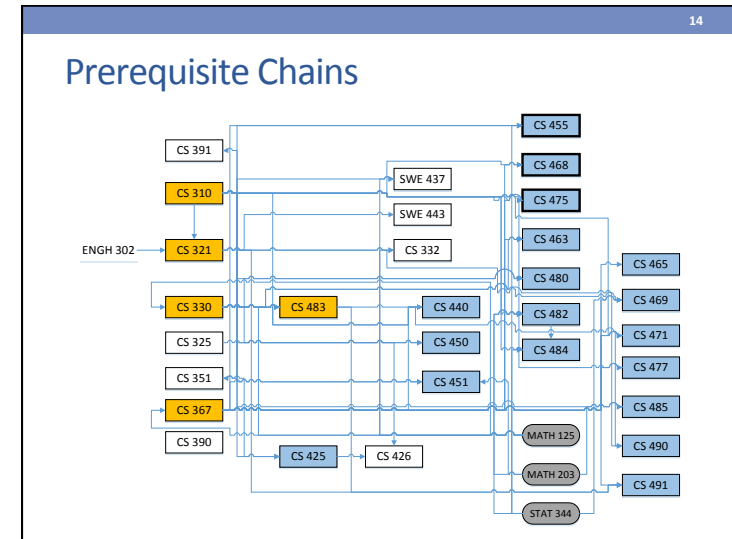
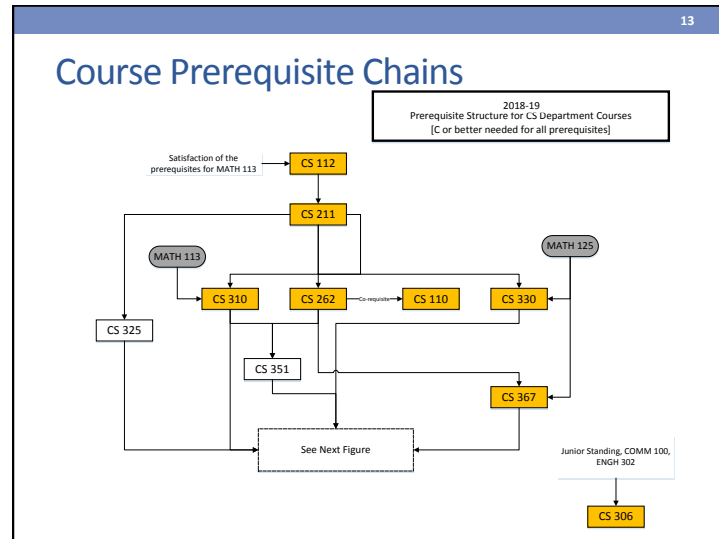
Major Requirements (CS Core)

- CS 110
 - Essentials of Computer Science
- CS 306
 - Synthesis of Ethics & Law for the Computing Professional
- CS 112, 211, 310
 - Introduction to Programming; Object-Oriented Programming; Data Structures
- CS 262, 367, 471
 - Intro to Low-level Programming; Computer Systems and Programming; Operating Systems
- CS 321
 - Software Engineering
- CS 330, 483
 - Formal Methods & Models, Analysis of Algorithms

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Five CS-Senior electives :

- **CS 455 or 468 or 475**
- **Four additional courses chosen from**
 - CS 425 - Game Programming I
 - CS 440 - Language Processors and Programming Environments
 - CS 450 - Database Concepts
 - CS 451 - Computer Graphics
 - CS 455 - Computer Communications and Networking**
 - CS 463 - Comparative Programming Languages
 - CS 465 - Computer Systems Architecture
 - CS 468 - Secure Programming and Systems**
 - CS 469 - Security Engineering
 - CS 475 - Concurrent and Distributed Systems**
 - CS 477 - Mobile Application Development
 - CS 480 - Introduction to Artificial Intelligence
 - CS 482 - Computer Vision
 - CS 484 - Data Mining
 - CS 485 - Autonomous Robotics
 - CS 490 - Design Exhibition
 - CS 491 - Industry-Sponsored Senior Design Project (3 credits only)
 - CS 499 - Special Topics in Computer Science*
 - MATH 446 - Numerical Analysis I or OR 481 - Numerical Methods in Engineering



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BS Applied CS Degree

- BS Applied Computer Science
 - Created for students who want to work in one of the many disciplines that require advanced computing techniques.
 - Concentrations: game design and software engineering
 - Students take foundation and core CS courses along with foundation and core courses in the concentration area.

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BS ACS Degree Requirements

- All concentrations share the same common foundation requirements as the BS CS:
 - CS 110 (Essentials of Computer Science)
 - CS 112 (Introduction to Computer Programming)
 - CS 211 (Object-Oriented Programming)
 - MATH 113, MATH 114, MATH 125, MATH 203, STAT 344
Calculus I, II, Discrete Mathematics, Linear Algebra, Prob & Stat for Engineers
- All concentrations share the same common core requirements as the BS CS:
 - CS 262 (Intro to Low-Level Programming)
 - CS 306 (Law and Ethics for the Computing Professional)
 - CS 310 (Data Structures) / CS 330 (Formal Methods and Models)
 - CS 367 (Computer Systems & Programming)
 - CS 321 (Software Engineering)
 - CS 471 (Operating Systems)
 - CS 483 (Analysis of Algorithms)
- All concentrations must include one additional CS course numbered above 400

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Concentration Requirements

- Concentration in Computer Game Design*
 - Foundation: GAME 230, CS 306, CS 325, CS 351; AVT 104; STAT 344
 - Core: CS 425, 426, 451; AVT 382, 383
 - One approved elective related to game design
 - PHYS 160/161, one additional lab science course
- Concentration in Software Engineering*
 - Foundation: STAT 344; CS 306
 - Core: SWE 205, 301, 401; CS 332, SWE 437
 - Five courses chosen from:
 - CS 450, 455, 463, 465, 468, 475, 477, 491; SWE 432, 443
 - ENGL 388 & one of the following:
 - (PSYC 333, COMM 320, COMM 335)

*Not all concentration courses are offered every semester

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Transfer Student FAQs

- What courses transferred?
 - Check your transcript on PatriotWeb
 - Make sure your Associate's Degree is recorded on your transcript if you have one.
- What should I do if a previous course didn't transfer?
 - Submit course information to the CS Department Office if you did not receive a pre-approved transfer equivalency
 - Check with us after classes have started to make sure the paperwork is updated.
- Make sure Mason receives your most recent transcript from your previous school !!

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What Do I Register For?

- All transfer students must take CS 110 (Essentials of Computer Science) their first semester at Mason
- If you have an Associate's Degree in Computer Science from VCCS
 - Make sure Mason receives your final transcript
 - You must still take ENGH 302 (Advanced Composition) even if your Mason Core requirements might be 'waived'
 - Only the Natural Sciences section of ENGH 302 is acceptable
 - You may still need, CS 262 (Intro to Low-level Programming, MATH 125 (Discrete Mathematics), and/or COMM 100 (Public Speaking).
- See the Sample Schedule for students with A.S. degrees from VCCS

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- If you do not have an AS or AA degree you should
 - Make sure Mason receives your final transcript
 - Register for foundation Math and CS classes
 - Work on your Mason Core classes
 - Consult the BS CS brochure or advising checklist and take the Mason Core that you haven't completed
- If you are also an ACS major, register for classes needed for your ACS concentration
 - Consult the ACS concentration handouts or ACS advising checklists

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Mason Core

- How do I select Mason Core courses?
- The catalog has a list of courses for each category: e.g. Fine Arts, Social & Behavioral Sciences, Literature, etc.
- Consult the online Mason catalog under *Mason Core* here:
 - catalog.gmu.edu
 - It lists the courses that qualify for each of the Core categories

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Getting Help

- After classes begin, you will be assigned a CS Faculty Advisor. We will email you to let you know who your Faculty Advisor is.
- If you have concerns about meeting the prerequisites for a class, contact the CS Department.
- If you are in need of assistance *before* the semester starts, contact the CS Department Office staff.
 - We accept walk-ins 10 – 4 pm every day.
 - Email: csug@gmu.edu
 - Contact us by **email** for CS course overrides
 - Send from your Mason email account
 - Include your G number on all correspondence

What Happens Next?

- Go to the registration site at the time and location listed for Orientation.
 - Activate your Mason ID and password
 - Use PatriotWeb to determine the day/times for the classes that you want to take
 - Register on PatriotWeb. Use Patriot Scheduler
- Any questions?