Registration Information (February 2020 Entry) Your Personal Roadmap to Graduation

Welcome to the Computer Science (CS) program. This packet is designed to help you register for your courses so there are no surprises when you apply for graduation because you will have fulfilled all the graduation requirements. Please keep this paper in a safe place so you can refer to it in the future. It contains the graduation requirements for your entry. These requirements may change, but the requirements in this document are the ones that apply to your graduation.

Please review your registration choices with your advisor. YOUR ADVISOR MUST APPROVE YOUR COURSES BEFORE YOU REGISTER. Your advisor is listed in your MUM student portal. (stu.mum.edu) Please contact the CS Webmaster at cswebapps@mum.edu if you do not yet have an account or have difficulty.

One of the most important things for you to know is your registration number which can be found in your cs.mum.edu portal. Please start by finding this information. Registration priority is determined by your registration number. Enrollment priority is assigned to low registration numbers for the first and fourth blocks and priority enrollment is given to high registration numbers for the second and third blocks.

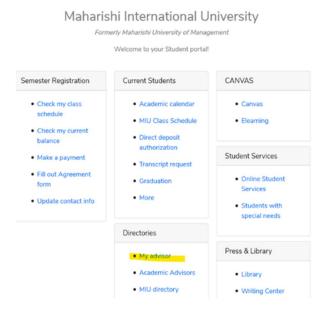
Low registration number=less than ½ the number of students in your entry class and high registration number=greater than ½ the number of your batchmates. For example, if a new entry consisted of 100 students, low registration numbers would be those less than 50 and high registration numbers would be those over 50.

Important meetings:

- 1. **Faculty Panel Meeting** for all students will be on Monday, February 24th at 3:30 in Dalby Hall. All students must attend.
- 2. **WAP Waiver Exam** for those who have knowledge of JavaScript and Java, Tuesday, February 25th at 3:30 in Dalby Hall. Please note: the waiver exams are only offered once for each new entry group.
- 3. **DBMS Waiver Exam** for those who don't want to take DBMS on campus and have some background in this area. Thursday, February 27rd at 3:30 in Dalby Hall.
- 4. **Online Registration Demo/Instruction Meeting**, Monday, March 2nd at 3:30 in Dalby Hall. All MPP students must attend.

Online registration for all MPP students, (both international and US) will open at 3:30 March 2nd and close at 3:30 pm on Tuesday, March 3rd. All those registering must do so online by 3:30 on Tuesday to avoid delaying registration for everyone. We cannot process the registration until all students have registered. Professor Lerman will be sending the registration link to the US students.

Students must consult their advisors before registering. You can find your advisor here in your student portal (stu.mum.edu):



The CS Registrar is not responsible for verifying that students have met prerequisites or are requesting courses in proper sequence.

Registration only occurs when students are in MPP. The FPP students will register when they are in MPP.

Masters of Science in Computer Science Graduation Requirements

- 44 credits of computer science courses at the 400 level or above (includes 4 credits of CS 401 MPP and 8 credits of CS 575 Practicum)
- At least 50% of the credits applied to the MS degree must be at the 500-level (e.g., the 8 units of CS 575 Practicum plus 4 other 4 unit courses)
- At least one of the following must be completed with a grade of "B" or better:
 - o CS 435 Algorithms
 - CS 505 Advanced Programming Languages
- Must complete at least one systems or analysis courses (DBMS, Security, Computer Networks, Operating Systems, Parallel Programming, Compilers, Software Testing, Big Data Analytics, Systems Analysis, Project Management or Mobil Device Programming.) Please note that waiving DBMS will not fulfill the requirement for having taken a systems course.
- No more than one course can have a grade of C+, C or C-. (Getting a "C" in graduate school is like getting an "F" as an undergrad.) Getting two "C" grades will mean an extra course will be needed to bring the GPA up to 3.0.
- Note: The Forest Academy requirement for this program is STC-1 in the first semester plus STC-2 before leaving campus. STC-2 must be taken before Career Strategies which is the last course MSCS students take on campus.
- Development of Consciousness (DC) is a credit bearing course. If a student receives an NC in this course, the student must arrangements with the local TM Center wherever the student re-locates, so these credits can be made up in a group meditation program after leaving campus.
- Career Strategies (CSW) is an optional 0 credit course for US students. US students must contact the Career Planning Office to enroll. International students are required to take CSW as their last course on campus and they will be automatically enrolled.

Waivers and Transfers

Students will not be assigned to any on-campus courses that they have waived (or transferred). The results of the waiver exams will be e-mailed to those who passed the exam.

- All waivers must be approved BEFORE preferences are entered and classes are assigned.
- You may waive a course if you have taken a commensurate course at another university. This must be approved by your faculty adviser or a faculty member who teaches the course.
- This is the only time that the waiver exams will be offered to your entry. You must take the waiver exam now. You will not be able to take it with any other entry in the future.
- You may transfer a course if you have taken a similar course for graduate credit at another university
 and have not used those credits towards another degree. These credits can count towards your MUM
 MSCS degree. You may transfer up to two courses.

WAP Waiver Test (Tuesday, November 26th at 3:30 in Dalby Hall)

- HTTP protocol
- HTML form elements
- CSS styles
- CSS layout
- Regular expressions
- JavaScript core objects
- JavaScript scope and closures
- JavaScript inheritance
- JavaScript module pattern
- JavaScript Async programming
- JavaScript event handlers

- JQuery library
- Ajax and JSON
- Java servlets
- Java web components
- ES6 (arrow functions, array API, object destructuring, template literals)
- Promises
- Servlets filters
- Servlets state management
- Java Servlets Server Pages (JSP)
- JSTL and custom tag

Database Waiver Test (Thursday, February 27th at 3:30 in Dalby Hall)

- 1. If a student already knows the DBMS material and would like to make sure that they are not assigned to that course, then they must take this waiver quiz.
- 2. This is the only time the waiver exam will be offered for students in this entry.
- 3. It is a Pass or Fail quiz.
- 4. There is no retake and no review.

Concepts covered:

Primary Key, Foreign Key
Entity and Referential Integrity Law
First, Second, and Third Normal Form
SQL queries with inner join and multiple tables
1 to 1, 1 to Many and Many to Many relationships
E-R diagrams

Concepts not covered:

Concurrency Control, Locking Deadlock, Time Stamping Distributed Databases

Courses with Prerequisites

You must satisfy the prerequisites for any courses listed below before the system will assign you to those classes.

- MPP is a prerequisite for all graduate courses.
- CS545 Web Application Architecture: CS472 WAP is a prerequisite for this course. There is a waiver quiz that is offered for each entry that must be passed to waive CS472.
- CS544 Enterprise Architecture (EA): One of the following is required as a prerequisite:
 - o CS545 Web Application Architecture
 - CS525 Advanced Software Development
 - CS425 Software Engineering
 - CS472 Web Application Programming
- CS572 Modern Web Applications (MWA): CS472 WAP is a prerequisite for this course. There is a waiver quiz that is offered for each entry that must be passed to waive CS472.
- Prerequisite courses must be passed with a grade of B or better. A grade of B- will only be considered to satisfy the prerequisite if there is a recommendation from the instructor of the prerequisite course. For C+ or lower grades, you must retake the prerequisite course to obtain a grade of B or better in order to enroll in the advanced course. If a student does not achieve a B grade in a prerequisite course, then a meeting with the faculty adviser must be made to revise the academic schedule if any courses are already scheduled that depend on the prerequisite course.
- There are no prerequisites for Distance Education (DE) courses. Any questions regarding DE should be sent to csdedirector@mum.edu. Transcript questions should be directed to csgraduation@mum.edu.

Course Selection Explanation

Classes will be assigned by:

- student preference as much as possible. Every effort will be made to enable students to be enrolled in the courses of their choice. We can't promise that you will get all the courses of your choice, but the registration system is well-designed to give as many students as possible their first preferences. Please note the information below as to how to maximize your chances for getting the courses of your choice.
- registration number (low to high for first and fourth blocks and high to low for second and third blocks). Registration strategy: Your registration number determines your probability of receiving your first course preference during any block. For example, in blocks one and four, low registration numbers receive priority. Choosing courses during the first and fourth blocks you especially want to do on campus would be a good strategy since your registration number gives you greater priority during those blocks. You will be more likely to get your first choices during these blocks. If there is a course you really, really want, you should make it your first preference in both blocks in which your registration number has priority.

Students must do the following

- get all waivers, transfers and prerequisites approved before registering preferences
- enter preferences for each block

Your registration number determines your chances of getting into a course. Popular courses fill fast, so you may not get into your first preference course even with a favorable registration number. Please see your advisor if you have questions.



Master of Science in Computer Science

For Those with Math Aptitude

Take Data Science (DS) Courses on Campus!

DS courses are open to all students. The Data Science Track is an optional specialization which is added to the transcript. If you are interested in pursuing a career in this area, please consult your advisor. For further information, please email: Professor Nair at



Data Science is the fastest growing area in Computer Science

The Data Science track is an option in the Computer Professionals Master's Program and includes the following core courses:

Big Data
Big Data Technologies
Big Data Analytics
Machine Learning

In addition, students in this track are required to take (or waive) these three courses:

Algorithms
Web Application Programming and
Database Management Systems

The Data Science (DS) Track is an optional specialization which is added to the transcript. Data Science courses are open to all students. Students with math aptitude interested in data science are encouraged to register for DS courses. If you have any questions regarding the DS Track, please contact your advisor or email Professor Nair at pnair@mum.edu.

The Data Science track includes the following core courses:

- Big Data
- Big Data Technologies

- Big Data Analytics
- Machine Learning

Supporting courses include:

- Algorithms
- Web Application Programming

• Database Management systems

Requesting a Month Off

Students are not encouraged to take time off. It can impact visas and interrupts the flow of coursework. Students are permitted to take time off, but international students should first check with Elaine or Maryam about their visa situation.

The STC-2 course is a graduation requirement and this course is only offered on campus in February, July, and August. STC is only offered on campus, so if the requested time off means missing STC-2, a student will have to return to campus to take that course in July, August or February. Career Strategies must be the last on-campus course taken.

To request a month off, students must fill out the change registration request form and indicate they are requesting a month off. Students are strongly urged to consult their advisors before submitting this request.

OPT

An explanatory OPT meeting will be held soon, and you will be contacted regarding the date. To apply for an OPT course, please email the CS Career Center at OPT@mum.edu.

Distance Education (DE)

DE registration occurs just before you leave campus and a special DE registration meeting will be announced. Once you are in DE, all registration questions will be handled by the DE Office, not the CS Registrar. Please note: students cannot be enrolled in both DE and on-campus courses simultaneously.

There is currently only one course that has not yet been created for DE. If you are interested in MWA, you must take it on campus.

Forest Academy and Career Strategies Workshop

You will be automatically registered for these courses.

Course Offering Descriptions can be found here:

https://www.cs.mum.edu/mum/course-offering-descriptions/

Please be advised that this schedule may change. All changes will be immediately posted in InfoSys, so you will want to know how to access this information in your account. The course listing below can be found at: https://infosys.cs.mum.edu/infosys/CourseSignup/student/signup.jsp

After registration your enrollments will be visible in your stu.mum.edu portal. Your first CS course will be in the Spring term which goes until June. If your enrollments extend past July, please go under the "profile" tab at the top right of the landing page to change the term to Fall to see enrollments further in the future.

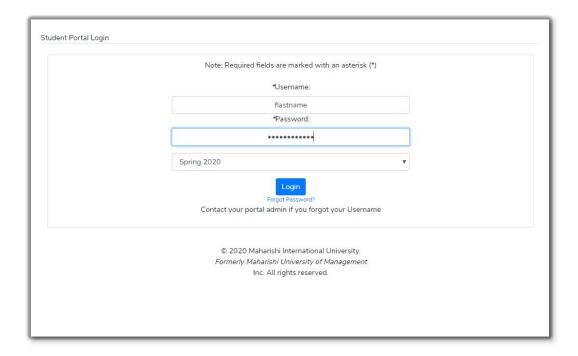
What to do if you don't get the courses you want

If you are not pleased with your registration results, you may go to cs.mum.edu under the quick links and choose "Registration Change Form". This form is automatically sent to your advisor. You may fill out this form only after registration is complete and you know what course you will be dropping. The Registrar needs to know both the course you want and the course you will be dropping before processing your request, so please wait until after registration has closed and you have your course registrations before filling out the change request form.

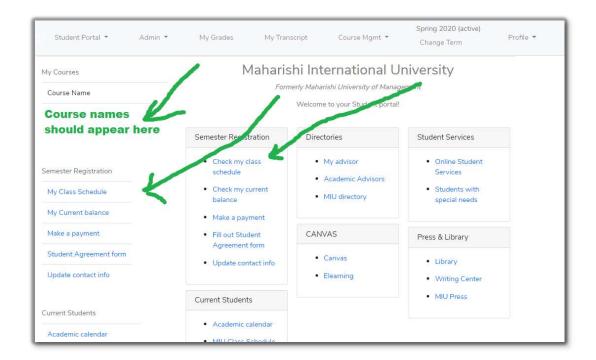
Requests are processed in the order received and are processed every few days to enable advisors to respond to these requests. When you submit your request, you will receive a "successful submission" screen on your computer telling you that your form has been received.

If you don't hear back from the Registrar's office, it means that the course was full, and you are now automatically on the waiting list for the requested course. Many requests will be processed during the break between blocks when the registrations of students who didn't pass courses are removed providing seats for those on the waiting list. Please be patient. Some students will be notified the night before the course begins when the grades from the previous block have been received.

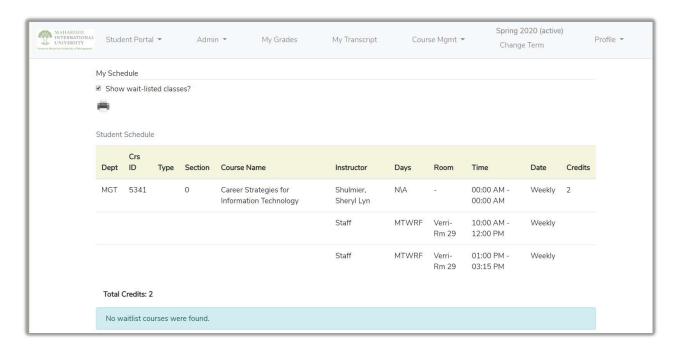
Finding Class Locations in Your Student Portal (Latest revision: 2/3/2020)



2. Course names appear in multiple places so you should be able to find them easily:



3. Click on "Check my class schedule" for information about your classes including buildings and room numbers:



How to Change Semesters in Your Student Portal:

First, a brief overview of how semesters work at MIU: The summer courses are in different semesters depending on whether you are an international or a US student (due to US Financial Aid):

Blocks 1-6 (January through June) Spring Semester All Students

Blocks 7 & 7a (July and August)

Summer Semester US Students

Blocks 7-12 (July or August through December) Fall Semester Intl. Students begin the semester in July

US Students begin in August

This means that the July and August courses are in the Fall semester for the internationals and in the Summer semester for the US students. The MSCS program spans more than two semesters, and the portal will only display one semester at a time, so students need to know how to change the semester in their portals. B

Login to your student portal: https://Stu.MUM.edu/flastname

XXXsomeXpassword



To change semesters please navigate to: Profile > Change Term > Select a new semester (click on the desired semester.