

Mpact

ENGINEERING FEARLESS IDEAS
TO IMPROVE MILLIONS OF LIVES

clark.umd.edu/mpact



A. JAMES CLARK
SCHOOL OF ENGINEERING

www.youtube.com/watch?v=hUaOCdudnWE



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SCHOOL OF ENGINEERING

Goals for Today

- Learn about the Clark School of Engineering and Student Services
- Review UM and college policies
- Become familiar with engineering degree requirements
- Review math placement and AP/IB/Transfer credits
- Build a tentative schedule for tomorrow



Clark School of Engineering

Engineering Majors:

- Aerospace
- Bioengineering
- Chemical & Biomolecular
(Earning a degree in Chemical Engineering)
- Civil & Environmental
(Earning a degree in Civil Engineering)
- Computer
- Electrical
- Fire Protection
- Materials Science
- Mechanical

Engineering Minors:

- Computer Engineering
- Construction Program
Management
- Engineering Leadership
Development
- International Engineering
- Nanoscience and
Technology
- Nuclear Engineering
- Project Management
- Technology
Entrepreneurship

**Students who are undecided engineering are required to declare a major before entering their 4th semester.*



Engineering Student Affairs

Clark School Student Services Units:

- Center for Minorities in Science and Engineering
- Engineering Co-op and Career Services
- International & Leadership Programs (Study Abroad)
- Women in Engineering
- Undergraduate Advising and Academic Support



Undergraduate Advising and Academic Support (UA&AS)

Location: Suite 1131S in Glenn L. Martin Hall
www.eng.umd.edu/advising

About us:

- Advise undecided engineering students
- Answer General Education questions
- Interpret and assist with policies and procedures
- Maintain student records
- Silver Green Office Certified!
- All forms are available online



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Student Support Services

FACT: The transition from high school to college will be challenging– but you are not alone! UMD offers free services to help:

- Tutoring Services - <http://www.eng.umd.edu/advising/tutoring> specific to Engineering/Math/Science courses
- Counseling Center: Learning Assistance Service - <http://counseling.umd.edu/las/> provides Success Workshops (time management, study techniques, etc.), Guided Study Sessions (CHEM, PHYS161, CMSC131, BSCI courses)
- Student Health - <http://www.health.umd.edu/care>
- Wellness - <http://recwell.umd.edu/>
- Mental Health Services - <http://www.health.umd.edu/mentalhealth/services>



Professionalism

- **Active Listening**—face the speaker and give your full attention. Ask questions to ensure understanding and give feedback when appropriate
- **Speaking**—think and organize your ideas before you speak to communicate effectively
- **Integrity/Honesty**—integrity takes time to build but only a second to lose. Choose to do the right thing regardless if anyone is watching
- **Sociability**—be courteous and treat people the same as how you would like to be treated
- **Diversity**—works well with individuals from diverse backgrounds
- **Participates as Member of a Team** —contributes to group effort



Email Etiquette

When writing emails to faculty/staff members, do so in a professional manner:

- Include a professional greeting (e.g. Dear Dr. ____) and your full name and student ID at the end of the email.
- Include a brief description of the problem/topic about which you are writing and a subject heading.
- Avoid using short-hand abbreviations (e.g. OMG, LOL, TTYL, etc.).
- Proof-read and spell check, so that your email reflects you in a professional manner.



Academic Policies

It is your responsibility to know the following policies (including but not limited to):

- Academic Integrity Policy
- Grades and Course information
- 45 Credit Review
- Drop a Course and the University Repeat Policy
- Probation and Dismissal
- Taking classes at another institution
- Financial – Differential Tuition



Academic Integrity

Student Honor Council

"I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment)"



Honor Pledge: "I pledge on my honor that I have not given or received any unauthorized assistance on this assignment."

- Be aware of what is considered an act of Academic Dishonesty
- Do not assume...ask your instructor!
- Typical sanction = XF on your transcript
- Student Honor Council



Office of Student Conduct

If you have a question do not assume, ask an anonymous question

UNIVERSITY OF MARYLAND

OFFICE OF STUDENT CONDUCT | UNIVERSITY STUDENT JUDICIARY | CHARACTER AND ETHICS EDUCATION | STUDENT HONOR COUNCIL

Office of Student Conduct

Promoting Integrity, Character, and Ethics

Home
Mission Statement
USJ Scholarship Fund
Staff Members
Resources
Student Forms
Environmental Efforts
Contact Us
INFORMATION FOR...
Referring a Case
Current Students
Off-Campus Jurisdiction

Topic of the Month

Best of Luck on Midterms!

Be sure to keep these policies in mind as you progress through the University. We want you to have a positive experience!

- Code of Academic Integrity:** Make sure you know how it applies to you and all of your school work. Use this [tutorial](#) to help!
- Sexual Misconduct Policy:** Review the policy [here](#) so that you are informed of how the policy applies to students!

Ask Anonymously

Ask Us Questions Anonymously

The Office of Student Conduct now offers students a safe, anonymous space to ask about the Code of Academic Integrity, the Code of Student Conduct, or any conduct-related questions through our Anonymous Ask. To ask a question fill out the form, found [here](#) with your question and look out for the answer on our Facebook page: Student Conduct at UMD or on the [website](#)

UMD Office of Student Conduct Anonymous Ask

The purpose is to inform students and give them a safe space to anonymously ask questions regarding the University of Maryland Code of Student Conduct and Code of Academic Integrity, as well as other conduct-related matters. The questions and answers will be posted to the Student Conduct at UMD Facebook page (<https://www.facebook.com/pages/ICE-at-UMD/199419400082700?fref=ts>) and the Office of Student Conduct Website (<http://osc.umd.edu/OSC/AnonymousAsk.aspx>). Duplicate questions will not be posted. Please check back soon for answers!

Please write your question and we will respond soon!



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Grades and Courses

Grade	Quality Points
A+	4.0
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0

- A “C-” or higher required in all major courses
- A “D-” or higher in all GEN ED courses is required to receive credit except for ENGL 101 which requires at C- or higher
- All degree-applicable courses must be regular grading method (no P/F)
- A minimum of a 2.0 G.P.A. in all major, minor, and certificates is required to graduate
- 120 credits minimum (124 credits minimum for Aerospace)



45 Credit Review

To remain in engineering, all students must pass the 45 credit review

- Evaluation occurs upon completion of 45 University of Maryland credits
- AP/IB/transfer coursework can be used to fulfill gateways; however, those credits are not used in calculating when you reach your 45th UM credit

45 CREDIT REVIEW CRITERIA (for first year students only)

- **CHEM 135** (Chemistry for Engineers) **OR CHEM 271** **OR** the combination of **CHEM 131 (CHEM Fund. I)** and **Chem 134 (Chem Principles Engr.)** each with a minimum grade of **C-**
- **ENES100** (Intro to Engineering Design) with a minimum grade of **C-**
- **MATH141** (Calculus II) with a minimum grade of **C-**
- **PHYS161** (Physics I) with a minimum grade of **C-**
- **ENGL101** (Academic Writing) Fundamental Studies English with a minimum grade of **C-**
- **At least one Distributive Studies General Education course** from the History & Social Sciences Humanities Category
- **A MINIMUM CUMULATIVE GPA OF 2.0**
- ****Only one of these courses can be repeated** (“W” is an attempt)

Failing Gateway Requirements

- Students who fail 45 credit review must change out of Engineering to another major
- Option to appeal, exceptions are rare



F.E.R.P.A. (a.k.a. The Buckley Amendment)

Family Educational Rights and Privacy Act (FERPA) a.k.a. Buckley Amendment

You have the right to inspect your education records and seek to correct these records where appropriate

You have the right to limit disclosure of your education records to others without your written consent

It is your choice whether or not to sign/ click “yes”.

Signing gives UA&AS permission to discuss your academic records with your parent/guardian

To access the form, visit: www.eng.umd.edu/advising/

Click on “forms” – last form listed <http://ter.ps/5tb>



Drop a Course / Repeat Policy

General Repeat Policy:

- Students may repeat no more than 18 credits total.
- Any course may be attempted twice (repeated once). A 'W' counts as an attempt.
- Both attempts and grades earned will appear on transcript.



Grade replacement:

- The grade point average will include all attempts at a given course that result in a grade of A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F. However, to help freshmen and transfer students adjust to the University of Maryland, the following two exceptions allow for the cumulative GPA to be calculated so that only the higher grade is included:

1)When the repeated course was taken within the students first semester at University of Maryland,

OR

2)When the repeated course was taken within the students first 24 credit hours attempted (including transfer credits) or within the semester during which the student reached the 24th credit hour attempted. Advanced Placement Exam credits do not count toward the 24 credit count.

To Drop a Course:

- Students can add and drop (standard) courses during the schedule adjustment period (the first 10 days of class). Non-standard courses such as MATH 206 have different drop/add dates. There may be financial implications of dropping a course.
- After the schedule adjustment period ends, **students can drop up to 4 credits** with a "W" up until the published deadline.
- In extenuating circumstances, students may withdraw from the entire semester – speak with an advisor for assistance.



Academic Probation/Dismissal

- Must maintain a minimum of a 2.0 cumulative GPA to remain in good academic standing
- Students who fall below a 2.0 cumulative GPA will be placed on Academic Probation for the following semester
- To get back in good academic standing and not be dismissed:
 - Students < 60 credits → earn a 2.0 **semester** GPA
 - Students > 60 credits → earn a 2.0 **cumulative** GPA



Taking Classes at Another School

- A 'Permission to Enroll' (PTE) form must be submitted and approved prior to registering at another institution

Freshmen must complete 1 semester to establish at least a 2.0 UMD GPA before being approved for PTE

- Transfer Credit Services – View an online database of previously approved equivalencies: www.transfercredit.umd.edu
- A grade of C- or higher is required for all transfer courses
- Classes taken elsewhere will be reflected on your transcript, but will not be calculated in your GPA
- Request an official transcript to be sent to the Office of the Registrar



Differential Tuition Basics

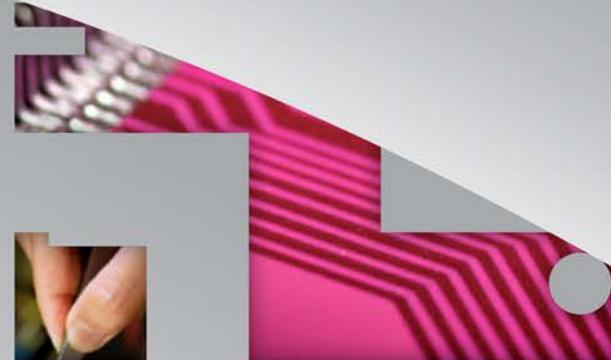
- Billing based upon total credits for majors within engineering, not standing within a program
- Only charged once if double major/double degree
- Study Abroad – how impacted
- For additional information please see:

www.admissions.umd.edu/costs/DifferentialTuition.php



Part II

Advising



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Advising Services

- Every semester you are required to obtain advising
- **Departmental Advisor:**

For students with a declared major, the departmental advisor is your primary advisor
- **UA&AS Advisor:**

For students who are undecided engineering, the UA&AS advisor is your primary advisor until you have declared your major



Four-Year Graduation Plan

- Develop a four year academic plan for registration and progressing toward graduation
- Build in flexibility and adjust as needed
- Based on registration range between 14-17 credits per semester. (*Register for 15 if you need to complete 30 credits by year to maintain scholarships.*)
- To be full time students must take at least 12 credits
- First semester engineering students can take a maximum of 17 credits. In future semesters, they may take up to 18 credits
- Students with financial support should ensure they meet scholarship/loan credit requirements



u.achieve (Degree Audit)

https://www.youtube.com/watch?v=dt9_Cnx0Us

UNIVERSITY OF MARYLAND



Welcome to u.achieve!

The University of Maryland's New Degree Audit System

u.achieve replaces Degree Navigator as the University's degree audit system.

u.achieve helps students and advisors evaluate academic progress towards degree completion. The degree audit system is meant to be an unofficial guide, as several factors may impact an online audit, such as:

- The completeness of transfer course information within the audit
- Program requirements varying depending on the date of matriculation, or major declaration
- The integration of course exceptions into the audit

IMPORTANT NOTE:

- Every effort has been made to ensure that information contained in this system is correct and complete. However, please be aware that you may find inconsistencies during the transition into this new system. The Office of the Registrar is committed to working with the academic advisors to promptly clear up any discrepancies.
- A u.achieve audit does not imply degree clearance, nor does it take the place of an official academic audit. Official audits are conducted by the academic advisor.

WHO CAN USE U.ACHIEVE?

You may use u.achieve if you are an undergraduate student with an active Directory ID and password and have taken courses anytime within the past three years. Graduate students should check with their program to determine if u.achieve has been implemented for you.

Undergraduate Students

Graduate Students

Dates to Remember

- **August 25, 2017-** Last day to drop with 100% refund*
- **August 28, 2017-** 1st day of classes, Mandatory Waitlist Check-in Begins
- **September 11, 2017-** Last day of Schedule Adjustment Period
- **September 12, 2017-** Last day of Mandatory Waitlist Check-in
- **November 6, 2017-** Last day to drop a class with a “W”
- **December 11, 2017-** Last day of classes & Last day to request a Complete Withdrawal from the University

**For the complete refund schedule please see:*
<http://registrar.umd.edu/calendar.html>





TESTUDO.UMD.EDU



- Academic Calendar
- Registration drop/add
- Unofficial transcript
- u.achieve (auditing software)
- Registration date/blocks/advising information

All of these links can be found at:

www.testudo.umd.edu/



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Part III

General Education



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General Education Folder

GENERAL EDUCATION@UMD



GENERAL
EDUCATION
@UMD

Academic Planner and Record Keeper

Office of Undergraduate Studies
301-405-9363
www.gened.umd.edu

Please open your
General
Education folder
to **page 2.**



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General Education

Fundamental Studies (15 credits/5 courses)	
Requirement	Course
Academic Writing (FSAW), 3 credits Attempt by 30 credits, complete by 60 credits	ENGL101
Professional Writing (FSPW), 3 credits Students must have a min of 60 credits to register	ENGL393
Oral Communication (FSOC), 3 credits	
Math (FSMA), 3 credits	MATH140
Analytic Reasoning (FSAR), 3 credits	MATH140



General Education

Distributive Studies (25 credits/8 courses)*	
Requirement	Course
Natural Sciences with Lab (DSNL), 4 credits	PHYS260 & 261
Natural Sciences without Lab (DSNS), 3 credits	PHYS161*
History and Social Sciences (DSHS), 3 credits	
History and Social Sciences (DSHS), 3 credits	
Humanities (DSHU), 3 credits	
Humanities (DSHU), 3 credits	
Scholarship in Practice (DSSP), 3 credits MUST be outside of major requirements	
Scholarship in Practice (DSSP), 3 credits	ENES100

**Advanced placement credit earned for PHYS 161 will award 4 credits of DSNL. Two DSNL courses will satisfy the DSNS requirement.*



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General Education

I-series (6 credits/2 courses)*	
Requirement	Course
I-Series (SCIS), 3 credits*	
I-Series (SCIS), 3 credits*	
Diversity (4-6 credits/2 courses)*	
Requirement	Course
Understanding Plural Societies (DVUP), 3 credits*	
Understanding Plural Societies (DVUP), 3 credits OR Cultural Competence (DVCC), 1-3 credits*	

*All students must complete two Distributive Studies that are coded as I-Series courses. The Understanding Plural Societies (UP) and Cultural Competence (CC) courses may also double count with Distributive Studies categories.



DSXX Wildcard Classes for students under General Education ONLY!

- Transfer credits given a DSXX designation can satisfy any “Distributive Studies” requirement.
 - Cannot be used towards Fundamental Studies, I-series, Distributive Studies Lab course (DSNL), Understanding Plural Societies, Or Cultural Competence.
- This applies only to transfer courses from Maryland public institutions

Please let an advisor know which requirement you would like to apply your DSXX



Math Placement Exam (MPE) Result/Transcript

- Highest math eligibility for this exam is MATH140 (Calculus I)
- Confirmed AP Scores override MPE results
- To retake the MPE, e-mail place@math.umd.edu. Include your name and UID in the e-mail.
- You are only permitted to retake the MPE one time.
- Transcript
Your unofficial transcript reflects what UMD currently has on record for you (**AP/IB and Transfer Credits**) You can access your unofficial transcript on www.testudo.umd.edu



MATH Courses

Math Course

- Calculus **AB**, score 4 or 5 = MATH140
- IB, score 5, 6, or 7 on Higher test = MATH140
If AP/IB credit for MATH140 (Calculus I) → take MATH141 (Calculus II)
- Calculus **BC**, score 4 or 5 = MATH140 & MATH141
- If AP credit for MATH140 & MATH141 → see next slide
- You may elect to retake a math course for which you have earned credit

Students in the University Honors Program may register for “H” versions of math courses (i.e. MATH 140H)

These sections have limited seating and fill up quickly.

Students who have documented credit for MATH 140 & 141 who have also had exposure to multivariable calculus can request MATH 340
ugadvisor@math.umd.edu MATH340 = MATH241



MATH Courses

MATH140 and MATH141 are required for every engineering discipline.
Please see below for the next recommended MATH courses for your major

Major	Required Courses	Credits
Aerospace	MATH241 MATH246 MATH240 or MATH461	4 3 4 OR 3
Bioengineering	MATH241 MATH246	4 3
Chemical	MATH241 MATH246	4 3
Civil	MATH241 MATH246	4 3
Computer	MATH246	3
Electrical	MATH241 MATH246	4 3
Fire Protection	MATH206 MATH240 OR MATH241 MATH246	1 4 3
Material Science	MATH206 MATH241 MATH246	1 4 3
Mechanical	MATH241 MATH246	4 3

CHEMISTRY COURSES

CHEM135 (General Chemistry for Engineers)

- Required for all engineering majors
 - AP 5, IB 6 or 7, or transfer credit equivalent to 135 will fulfill requirement
- Co-requisite of MATH140 (Calculus) or higher
 - If MPE < MATH140, take General Education course instead of CHEM135

CHEM134 (Chemical Principles for Engineers)

- Only for students who have documented credit for CHEM131
 - If AP score 4 OR an IB score of 5, or transfer credit equivalent to 131, take 134

CHEM136 (General Chemistry Laboratory for Engineers)

- Required for only Bioengineering, Chemical, and Materials Science
 - AP 4 or higher, IB 5 or higher, or transfer credit equivalent to 136 this will fulfill the CHEM 136 requirement



CHEMISTRY COURSES

All engineering majors require **CHEM135 OR the combination of CHEM131 and CHEM134**. Please reference the chart below to see if you will need additional chemistry courses depending on your major.

Major	Required Courses	Credits
Aerospace		
Bioengineering	CHEM136 CHEM231 and CHEM232	1 3 and 1
Chemical	CHEM136 CHEM231 and CHEM232 CHEM241 and CHEM242	1 3 and 1 3 and 1
Civil		
Computer		
Electrical		
Fire Protection		
Materials Science	CHEM136	1
Mechanical		



Keystone Courses

ENES100 (Intro to Engineering Design)

- Required for all engineering majors
- Co-requisite of MATH140 or higher

ENES102 (Mechanics I)

- Required for Aerospace, Bioengineering, Civil, Fire Protection, and Mechanical
- Co-requisite of MATH140 or higher
- *ENES100 does NOT have to be taken before ENES102*

General Guidelines

- If not placed into MATH140 or higher, then take a General Education course instead
- Undecided engineering should take ENES100



Keystone Courses

All Majors require ENES100. Reference the chart below to determine if you need additional ENES depending on your major

Major	Required Courses	Credits
Aerospace	ENES102	3
Bioengineering	ENES102	3
Chemical		
Civil	ENES102	
Computer		
Electrical		
Fire Protection	ENES102	3
Materials Science		
Mechanical	ENES102	3



MAJOR SPECIFIC COURSES

Major	Specific Courses	Credits	Notes
Aerospace	ENAE100	1	Only offered in Fall Semester
Bioengineering	BIOE120 BIOE121 and/or CHEM136	3 1 1	
Chemical	CHEM136	1	AP score of 4 on Chemistry; otherwise, take during Spring Semester
Civil	ENCE100	1	
Computer	CMSC131	4	Placement into at least MATH140
Electrical	ENEE140/ ENEE148A	2 3	ENEE101 if seats available
Fire Protection	ENFP101	1	Optional, not required
Materials Science	ENMA180, CHEM136, and ENEE140	1 1 2	AP score of 4 on Chemistry; otherwise, take during Spring Semester
Mechanical	ENME202	3	Only if placed in MATH241
Undecided	ENES181 <u>or</u> UNIV100	1	



Academic Writing ENGL 101

ENGL101 (Academic Writing)

- Required for all students with a grade of a C- or better
- Language & Composition AP Score 4 or 5 = ENGL101
(The Literature AP test does not award students credit for ENGL 101)
- Recommended to take in the fall, **but if not taken in the fall must be taken in the spring.**
- Students in Honors / Scholars Programs may register for ENGL101H / ENGL 101S sections, respectively



Special Program Courses

Special Program Courses

On back of the first year schedule builder locate your special program (if applicable) and list any required course(s).

- Write that course in the chart on the front of the FSB
- Involvement with multiple special programs may require speaking with an advisor due to the limit of 17 credits for the first semester



General Education Courses

General Education Courses

- Some General Education courses can be fulfilled through AP or IB credit
 - See unofficial transcript for course equivalencies
- If there is still space left in your schedule, add a general education course.
- General Education courses can potentially fulfill requirements in multiple categories (e.g. DSHU and SCIS)



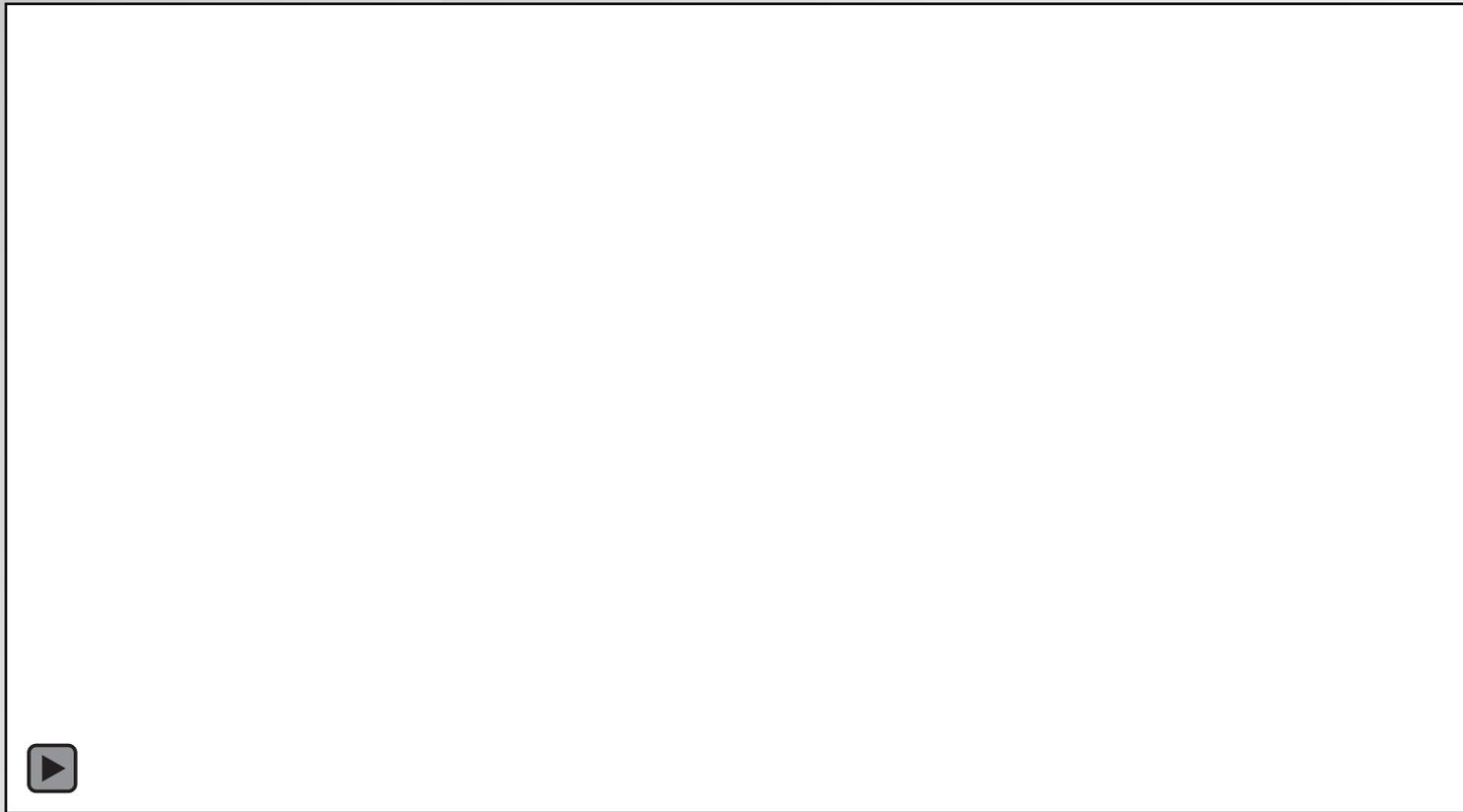
Part V

Registration



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Registration Add/Drop & Waitlist



Waitlist vs. Hold File

What is the difference between a waitlist and a hold file?

- If a course no longer has available seats a **Waitlist** is an option if you meet the course requirements established by the department offering the course.
- The **Hold File** is a roster of students who wish to register for a course, but who do not meet the departmental restrictions. These students must be placed on the Hold File even though the course may have seats available. For courses with a hold file, students on the waitlist receive priority consideration over those on the hold file.



Seat Management

EDSP Education, Special [Department Site](#)

Hide All Sections

EDSP289I Disability: From Stigma and Sideshow to Mainstream and Main Street

Credits: 3 Grading Method: Regular, Pass-Fail, Audit

General Education: DSHS, DVUP, SCIS



▼ Hide Sections

0101	Peter Leone	Seats (Total: 6, Open: 1, Waitlist: 0 Holdfile: 19)	
	Tu 12:30pm - 1:45pm	SQH 1119	
	Th 12:30pm - 1:45pm	EDU 1121 Discussion	
0102	Peter Leone	Seats (Total: 6, Open: 2, Waitlist: 0 Holdfile: 18)	
	Tu 12:30pm - 1:45pm	SQH 1119	
	Th 12:30pm - 1:45pm	EDU 2101 Discussion	
0103	Peter Leone	Seats (Total: 6, Open: 2, Waitlist: 0 Holdfile: 17)	
	Tu 12:30pm - 1:45pm	SQH 1119	
	Th 12:30pm - 1:45pm	EDU 3233 Discussion	



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Welcome to the Clark School of Engineering Family!



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