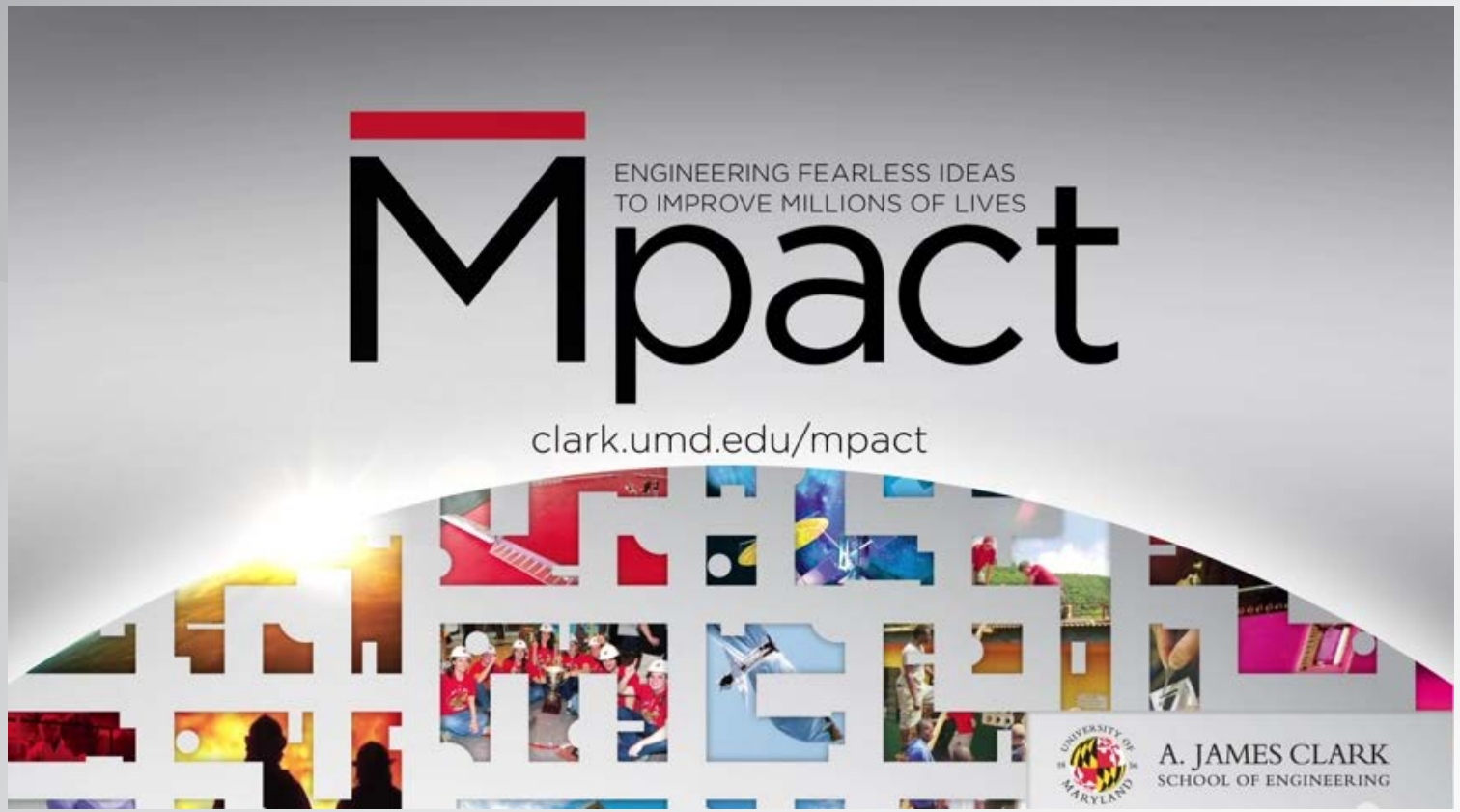
First Year Orientation
Summer 2018

THE OFFICE OF UNDERGRADUATE
ADVISING & ACADEMIC SUPPORT

UNIVERSITY OF MARYLAND 18 56

A. JAMES CLARK
SCHOOL OF ENGINEERING



www.youtube.com/watch?v=hUaOCdudnWE

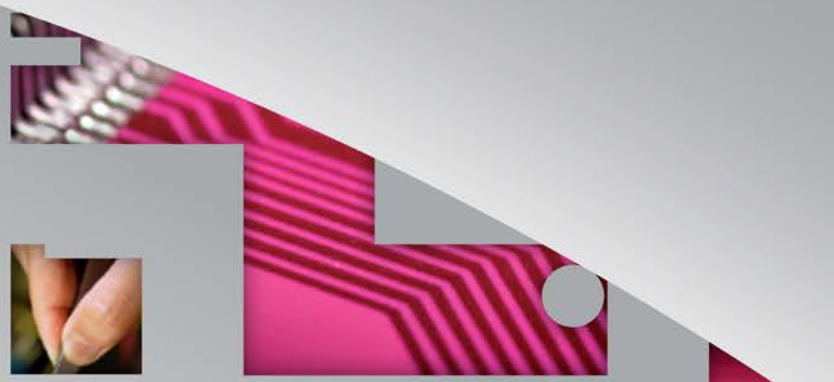
Goals for Today

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

Take a picture!

Part I

Clark School Services and Academic Policies



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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:** http://counseling.umd.edu/las/
- **Student Health -** http://www.health.umd.edu/care
- **Wellness -** http://recwell.umd.edu/
- **Mental Health Services -**
  http://www.health.umd.edu/mentalhealth/services

Engineering Student Affairs

Clark School Student Services Units:

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

Undergraduate Advising & Academic Support (UA&AS)

About us:

- Advise undecided engineering students
- Answer General Education questions
- Interpret and assist with policies and procedures
- Maintain student records
- All forms and requests are available online

Contact Information:
Suite 1131S in Glenn L. Martin Hall
www.eng.umd.edu/advising
301-405-9973
engrhelp@umd.edu

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Email Etiquette

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

- Include a professional greeting (e.g. Dear Dr. ___), your full name and student ID in 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.

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 to communicate effectively
- **Integrity/Honesty**–integrity takes time to build but only a second to lose. Choose to do the right thing regardless of who 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

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
- ***New Fall 2018-*** Global Engineering Leadership
- 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.***

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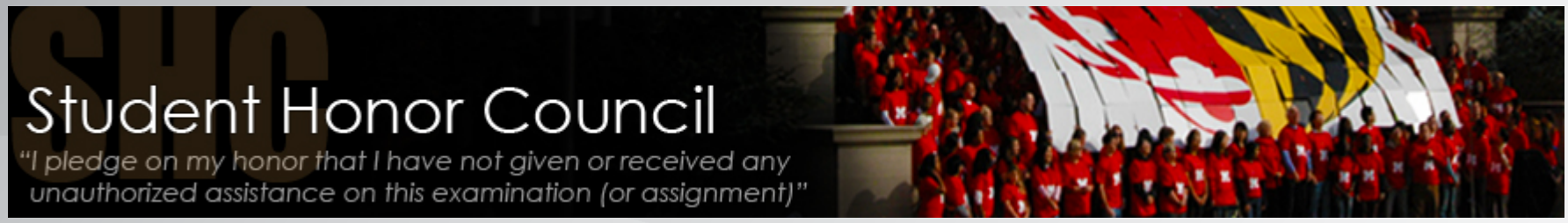
Academic Policies

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

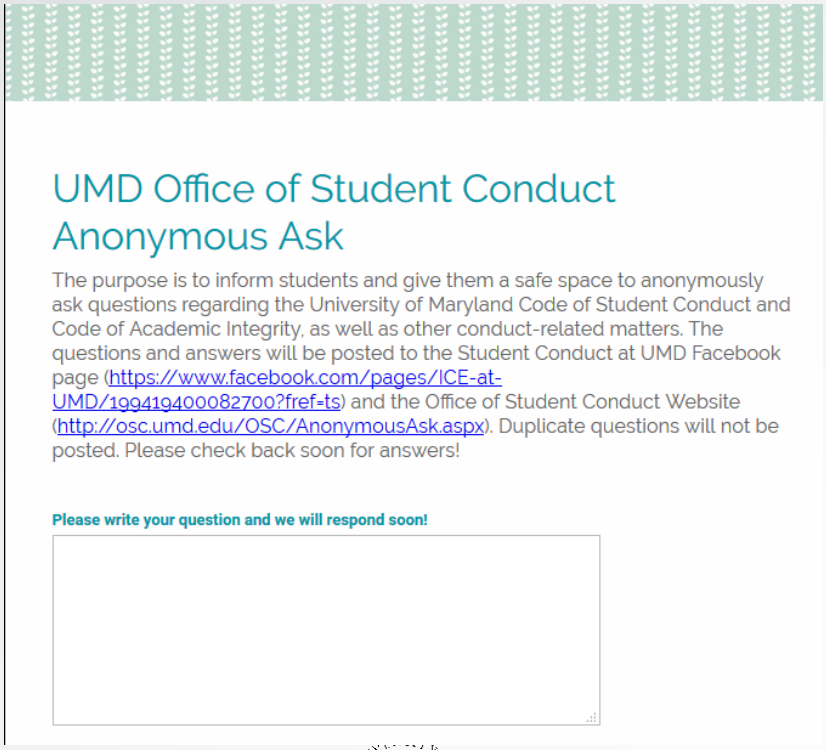


Honor Pledge: "I pledge on my honor that I have not given or received any unauthorized assistance on this assignment."

- 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



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Grade Point Average (GPA)

- **Cumulative GPA-** Includes all attempts of courses taken at the University of Maryland (UMD)

  Cumulative GPA is official and is shown on your transcript

- **Major GPA-** Includes all attempts of courses taken in the major at UMD (not to include General Education courses)

  For instance, the engineering major GPA includes basic science, engineering science, major requirements and technical electives

- **Minor GPA-** Includes all attempts of courses taken in the minor at UMD (15-24 credits of coursework)

Courses taken off campus are not factored into your UMD GPA

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)

Grade Replacement

- **Definition:** When a grade earned in a repeated course replaces the grade earned in a first attempt of a course

- **Purpose:** To provide students the opportunity to improve their cumulative GPA for those courses taken while they are still adjusting to campus

- Students are only eligible for grade replacement for those courses taken in the first 24 credits or in their first term

  1) Incoming freshmen traditionally earn their first 24 credits during the first year of enrollment (e.g. in the fall or spring). Courses taken during the first 24 credits will be eligible for grade replacement.

  2) Incoming transfer students who are bringing in transfer credits are eligible for grade replacement for courses taken in their first term.

Grade Replacement Cont.

- Every letter grade earned will always appear on the transcript. However, for those courses taken for grade replacement, only the higher grade will be factored into the cumulative GPA.

- Students may choose to repeat a course for grade replacement in any term (e.g. If a “D” was earned during the freshmen year, the course can be repeated in the junior year for a higher grade).

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 UMD 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

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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
- Limit disclosure to others of personally identifiable information from the education record without your prior written consent
- Seek correction of your education record where appropriate

It is *your choice* whether or not to sign/ click "yes".
Signing gives UA&AS permission to discuss your academic records with your families

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

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.

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 with less than 60 credits → earn a 2.0 ***semester*** GPA

  Students with greater than 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 a PTE

- View an online database of previously approved equivalencies on the **Transfer Credit Services** web site: 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 (DT)

- DT applies only to students who have earned 60+ credits and are enrolled in the A. James Clark School of Engineering, the R.H. Smith School of Business or the department of computer science within the college of Computer Math and Natural Sciences.
- Prior learning credits are calculated into a student's overall credit total at UMD
  - Students who matriculate to the AJC with more than 60+ prior learning credits will be granted a waiver for the first year
  - Students who matriculate with around 43 credits and take 17 credits their first semester will be charged DT their second semester
- Full-time students will be charged $1400 per semester for no more than four semesters; part-time students will be charged on a per-credit basis
- Students will only be charged DT one time a semester if they are pursuing a double major/double degree
- Students must change their major prior to the end of schedule adjustment in order to avoid being charged DT

- For additional information please see UMD's FAQ's: http://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:**

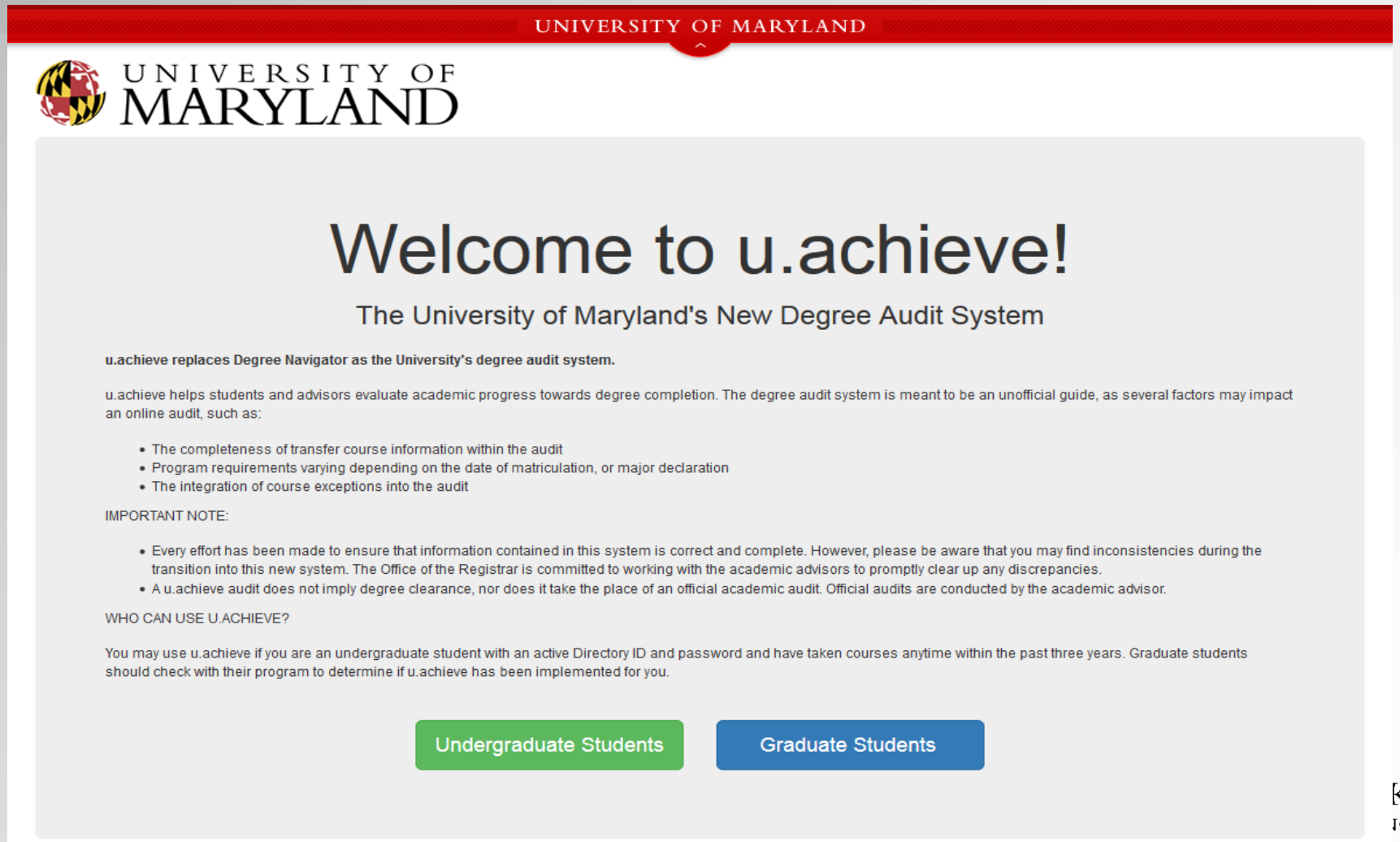
  For students who are undecided engineering, the UA&AS advisor is your primary advisor until you have declared your major

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=dtt9_Cnx0Us



Dates to Remember

- **August 24, 2018-** Last day to drop with 100% refund*
- **August 27, 2018-**1st day of classes, Mandatory Waitlist Check-in Begins
- **September 10, 2018-** Last day of Schedule Adjustment Period
- **September 11, 2018-** Last day of Mandatory Waitlist Check-in
- **November 5, 2018-** Last day to drop a class with a “W”
- **December 10, 2018-** 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

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TESTUDO.UMD.EDU

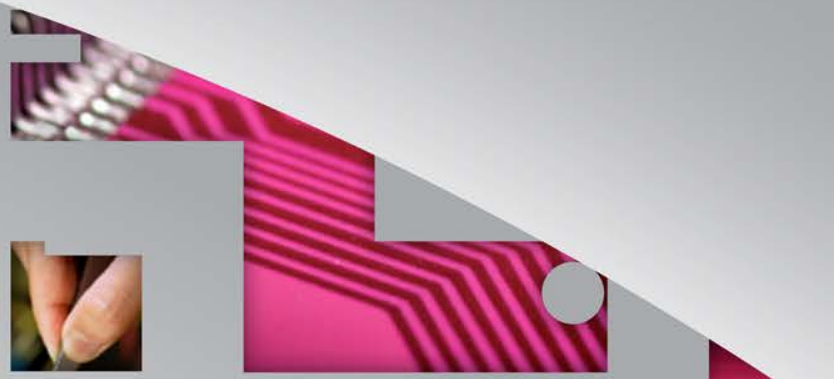
- Academic Calendar
- Registration drop/add
- Unofficial transcript
- uAchieve (Degree Audit)
- Registration date/blocks/advising information

All of these links can be found at:

www.testudo.umd.edu/

Part III

General Education



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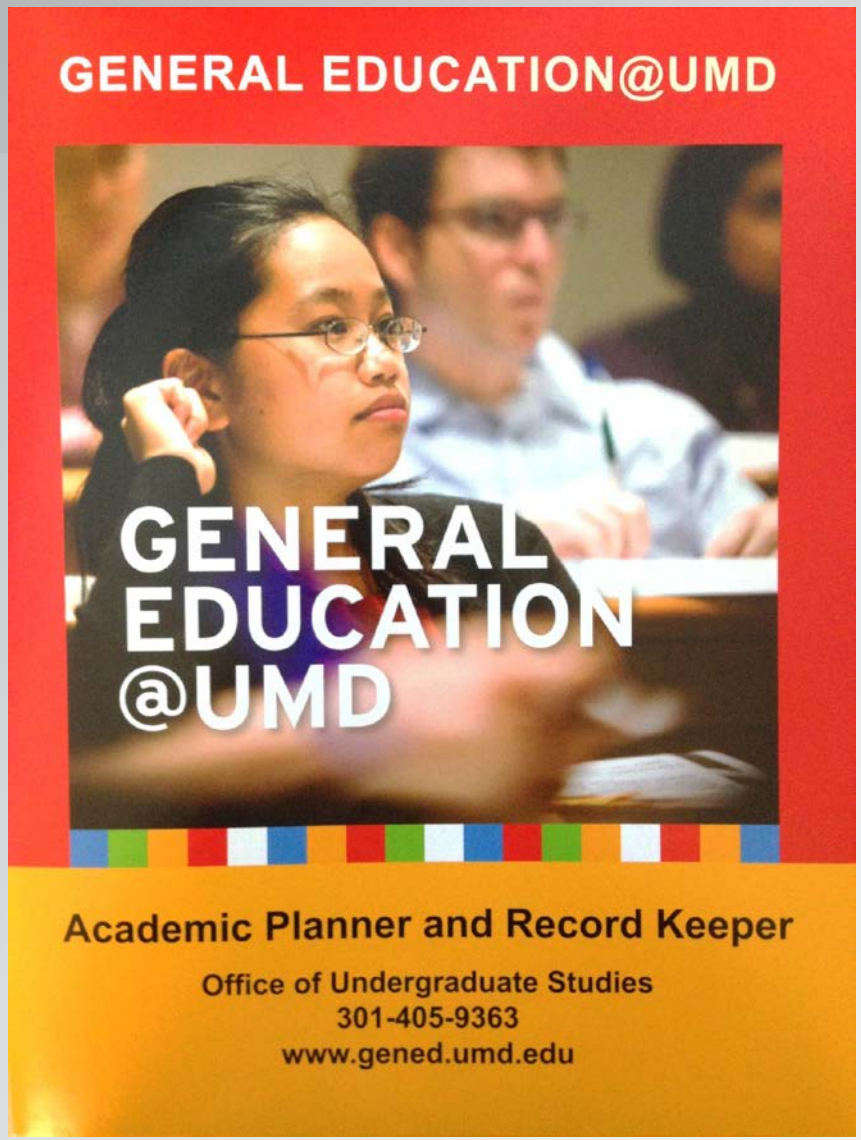
General Education Folder



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 most “Distributive Studies” requirements.
  - 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

Part IV

Building Your Schedule

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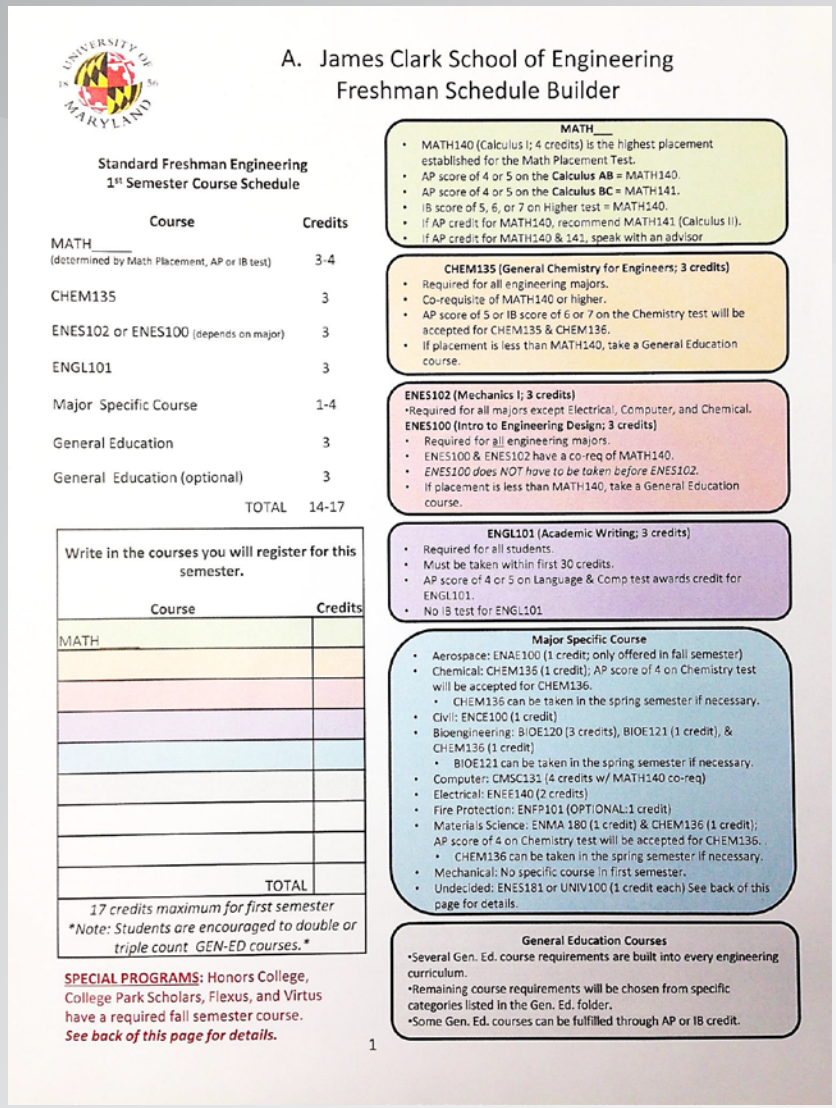
First Year Schedule Builder (FSB)



A. James Clark School of Engineering
Freshman Schedule Builder

Standard Freshman Engineering
1st Semester Course Schedule

Course	Credits
MATH_____ (determined by Math Placement, AP or IB test)	3-4
CHEM135	3
ENES102 or ENES100 (depends on major)	3
ENGL101	3
Major Specific Course	1-4
General Education	3
General Education (optional)	3
TOTAL	14-17

Write in the courses you will register for this semester.

Course	Credits
MATH_____	
TOTAL	

17 credits maximum for first semester
Note: Students are encouraged to double or triple count GEN-ED courses.

SPECIAL PROGRAMS: Honors College, College Park Scholars, Flexus, and Virtus have a required fall semester course.
See back of this page for details.

MATH___
- MATH140 (Calculus I; 4 credits) is the highest placement established for the Math Placement Test.
- AP score of 4 or 5 on the **Calculus AB** = MATH140.
- AP score of 4 or 5 on the **Calculus BC** = MATH141.
- IB score of 5, 6, or 7 on Higher test = MATH140.
- If AP credit for MATH140, recommend MATH141 (Calculus II).
- If AP credit for MATH140 & 141, speak with an advisor

CHEM135 (General Chemistry for Engineers; 3 credits)
- Required for all engineering majors.
- Co-requisite of MATH140 or higher.
- AP score of 5 or IB score of 6 or 7 on the Chemistry test will be accepted for CHEM135 & CHEM136.
- If placement is less than MATH140, take a General Education course.

ENES102 (Mechanics I; 3 credits)
- Required for all majors except Electrical, Computer, and Chemical.

ENES100 (Intro to Engineering Design; 3 credits)
- Required for all engineering majors.
- ENES100 & ENES102 have a co-req of MATH140.
- *ENES100 does NOT have to be taken before ENES102.*
- If placement is less than MATH140, take a General Education course.

ENGL101 (Academic Writing; 3 credits)
- Required for all students.
- Must be taken within first 30 credits.
- AP score of 4 or 5 on Language & Comp test awards credit for ENGL101.
- No IB test for ENGL101

Major Specific Course
- Aerospace: ENAE100 (1 credit; only offered in fall semester)
- Chemical: CHEM135 (1 credit); AP score of 4 on Chemistry test will be accepted for CHEM136.
  - CHEM136 can be taken in the spring semester if necessary.
- Civil: ENCE100 (1 credit)
- Bioengineering: BIOE120 (3 credits), BIOE121 (1 credit), & CHEM136 (1 credit)
  - BIOE121 can be taken in the spring semester if necessary.
- Computer: CMSC131 (4 credits w/ MATH140 co-req)
- Electrical: ENEE140 (2 credits)
- Fire Protection: ENFP101 (OPTIONAL:1 credit)
- Materials Science: ENMA 180 (1 credit) & CHEM136 (1 credit); AP score of 4 on Chemistry test will be accepted for CHEM136.
  - CHEM136 can be taken in the spring semester if necessary.
- Mechanical: No specific course in first semester.
- Undecided: ENES181 or UNIV100 (1 credit each) See back of this page for details.

General Education Courses
- Several Gen. Ed. course requirements are built into every engineering curriculum.
- Remaining course requirements will be chosen from specific categories listed in the Gen. Ed. folder.
- Some Gen. Ed. courses can be fulfilled through AP or IB credit.

1

On the front:

- A standard first semester freshmen schedule can be found on the top left
- Colorful boxes on the top right detail each standard course and include co/pre-reqs, AP scores, etc.
- Write in the specific courses you plan on registering for tomorrow on the appropriately shaded line.

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Math Placement Exam (MPE) Result/Transcript

- Highest math eligibility for this exam is MATH140 (Calculus I)
- Confirmed AP/IB 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 **or** 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)

We Look Forward to Seeing You Tomorrow for Registration!

Contact Information:
Suite 1131S in Glenn L. Martin Hall
www.eng.umd.edu/advising
301-405-9973
engrhelp@umd.edu

FEAR THE TURTLE

A. JAMES CLARK SCHOOL OF ENGINEERING