University at Buffalo *The State University of New York* | EXPERIENCE UB

School of Engineering & Applied Sciences

Advising Session

Orientation Outline

- Become familiar with SEAS
- Know your degree requirements
- Policies and Expectations
- Prepare yourself professionally
- First semester schedule overview
- Registration

Key Contacts in SEAS

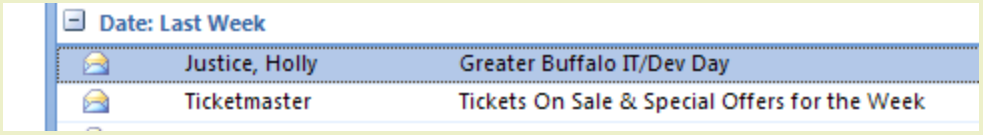
- Liesl Folks, Dean
- Jeffrey Errington, Associate Dean, Undergraduate Education
- Department Chairs
  - Biomedical Engineering - Albert Titus
  - Chemical and Biological Engineering - Stelios Andreadis
  - Civil, Structural and Environmental Engineering - Joseph F. Atkinson
  - Computer Science and Engineering - Chunming Qiao
  - Electrical Engineering - Stella Batalama
  - Industrial and Systems Engineering - Ann Bisantz
  - Mechanical and Aerospace Engineering - Kemper E. Lewis

Advisement

- Office of Undergraduate Education – 410 Bonner Hall
  - Primarily your first two years
  - See any available advisor or can continue with same one if desired
- Departmental Advisement – junior and senior years
  - Undergraduate Studies Directors
    - Matthew Ringuette, Aerospace Engineering
    - Albert H. Titus, Biomedical Engineering
    - Johannes M. Nitsche, Chemical Engineering
    - Mettupalayam Sivaselvan, Civil Engineering
    - Atri Rudra & Carl Alphonce, Computer Science and Engineering
    - Michael Langberg & Kevin Burke, Electrical Engineering
    - James N. Jensen, Environmental Engineering
    - Jun Zhuang, Industrial Engineering
    - Robert C. Wetherhold, Mechanical Engineering

Academic Tools

- Email
  - Your UB email account – Check it, Use it!
  - Email etiquette
- Listservs



Greater Buffalo IT/Dev Day

Computer Engineering Undergrad List [CENUG-L@LISTSERV.BUFFALO.EDU] on behalf of Justice, Holly [hjustice@buffalo.edu]

Sent: Sat 6/6/2009 2:22 PM

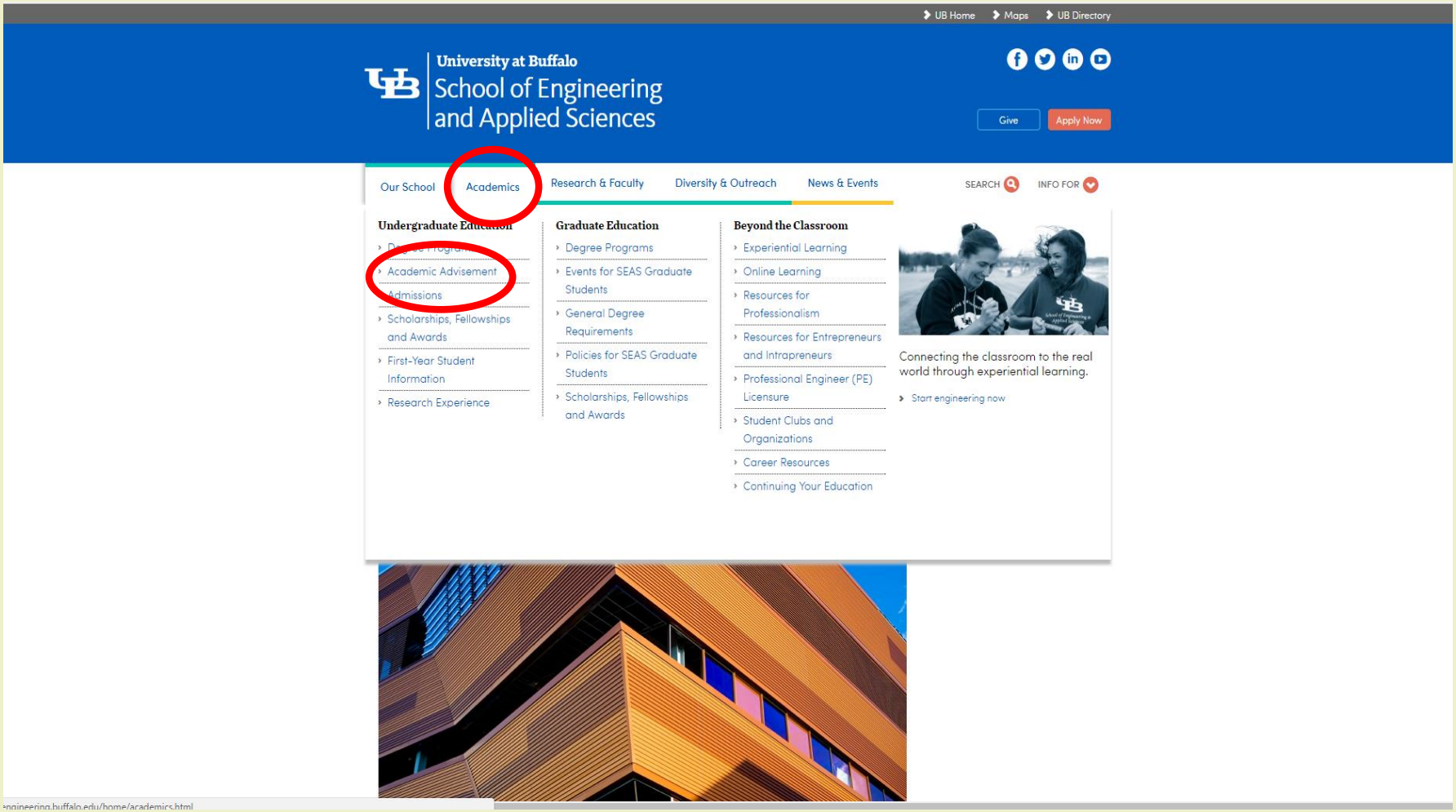
To: CENUG-L@LISTSERV.BUFFALO.EDU

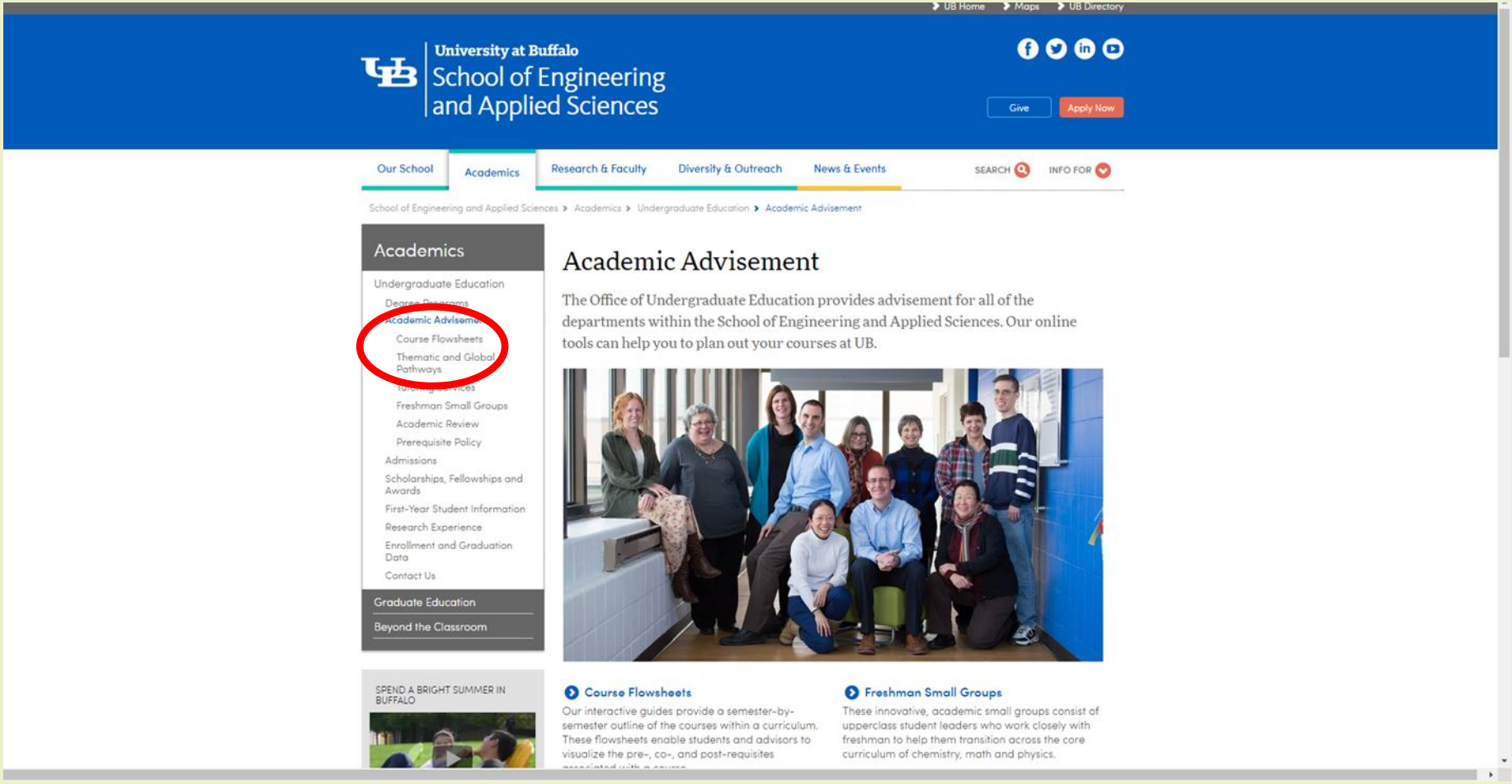
Just for your information

Greater Buffalo IT/Dev Day

Mark your calendars! MSDN and TechNet in conjunction with the Western New York .NET Users Group are bringing the Greater Buffalo IT/
Day to Daemen College in Amherst on July 21st. This is a FREE event!

engineering.buffalo.edu

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Undergraduate Education
Degree Programs
Academic Advisement
Course Flowsheets
Thematic and Global Pathways
Tutoring Services
Freshman Small Groups
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Admissions
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First-Year Student Information
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Enrollment and Graduation Data
Contact Us
Graduate Education
Beyond the Classroom
SPEND A BRIGHT SUMMER IN BUFFALO
Academic Advisement
The Office of Undergraduate Education provides advisement for all of the departments within the School of Engineering and Applied Sciences. Our online tools can help you to plan out your courses at UB.
Course Flowsheets
Our interactive guides provide a semester-by-semester outline of the courses within a curriculum. These flowsheets enable students and advisors to visualize the pre-, co-, and post-requisites
Freshman Small Groups
These innovative, academic small groups consist of upperclass student leaders who work closely with freshman to help them transition across the core curriculum of chemistry, math and physics.

Plan: Mechanical Engineering BS ▾
Effective Academic Year: AY 2017-18 ▾

Flowsheet for Freshmen | Flowsheet for Transfer Students | Seamless Transfer

Freshmen Flowsheet for Mechanical Engineering BS (Effective AY 2016-17 to AY 2017-18)

Freshman		Sophomore		Junior		Senior	
Fall	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**	**Fall**	**Spring**
MTH 141 *Calculus 1*	**MTH 142** *Calculus 2*	**MTH 241** *Calculus 3*	**MTH 306** *Differential Equations*	**MAE 335** *Fluid Mechanics*	**MAE 311** *Machines 1*	**MAE 451** *Design Process and Methods*	**MAE 494** *Design Project*
CHE 107 *Chemistry 1*	**PHY 107** *Physics 1*	**PHY 108** *Physics 2*	**EAS 208** *Dynamics*	**MAE 340** *Dynamic Systems*	**MAE 364** *Manufacturing Processes*	**MAE 338** *MAE Lab II*	*Applied Math Elective*
EAS 199 *First-Year Seminar*	**EAS 230** *Engineering Computations*	**PHY 158** *Physics 2 Lab*	**EAS 209** *Mechanics of Solids*	**MAE 376** *Applied Math for MAE*	**MAE 336** *Heat Transfer*	*MAE Technical Elective*	*MAE Technical Elective*
ENG 105 *Communication Literacy 1*	**MAE 177** *Engineering Drawing and CAD*	**EAS 207** *Statics*	**EE 200** *EE Concepts*	**MAE 377** *Product Design: CAE*	**MAE 334** *MAE Lab 1*	*MAE Technical Elective*	*Professional/Science Track 2*
	EAS 202 *Engineering Impact on Society*	**MAE 204** *Thermodynamics*	*Thematic or Global Pathway Course*	**EAS 360** *STEM Communications*	**MAE 385** *Engineering Materials Lab*	*Thematic or Global Pathway Course*	*Thematic or Global Pathway Course*
	Thematic or Global Pathway Course	**MAE 277** *Introduction to Practice*		**MAE 381** *Engineering Materials*	*Professional/Science Track 1*		**UBC 399** *UB Capstone*
15 HOURS	16 HOURS	18 HOURS	16 HOURS	18 HOURS	15 HOURS	14 HOURS	16 HOURS

General Notes:

Within the flowsheet presented above, students are expected to satisfy four of the five UB Areas and the Diversity Learning requirement via the four Thematic/Global pathway courses shown. List 3 Thematic and Global pathway courses are expected to be completed within the major. Please see the pathways website for more information.

Place the mouse over a course to highlight the

course prerequisite sequence
course prerequisites
course corequisite sequence
course corequisites
course post-corequisites
postrequisite course sequence

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Degree Requirement Areas

- SEAS major
- UB/SUNY General Education

Undergraduate catalog (http://undergrad-catalog.buffalo.edu/)

SEAS website

Program Flowsheet

Advising Report from HUB

Name: _____

Person Number: _____ Expected Graduation: _____

Term Admitted to UB: _____ SEAS: _____ Plan/Major: _____

Domestic or Interntional Std/FR or TR: If TR # of Credits at Entry to UB: _____

MECHANICAL ENGINEERING

UNIVERSITY AT BUFFALO

2016 Curriculum

Finish in 4

Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
4 MTH 141 Calculus 1	4 MTH 142 Calculus 2	4 MTH 241 Calculus 3	4 MTH 306 Diff Eq	3 MAE 335 Fluid Mech	3 MAE 311 Machines 1	3 MAE 451 Des Proc & Meth	3 MAE 494 Design Proj
4 CHE 107 Chem 1	4 PHY 107 Physics 1	4 PHY 108 Physics 2	3 EAS 208 Dynamics	3 MAE 381 Materials I	3 MAE 364 Man Process	3 MAE TE	3 MAE TE
	1 MAE 177 Eng Draw	1 PHY 158 Phy 2 Lab	3 EAS 209 Mech. of Sol	3 MAE 340 Dynamic Sys	3 MAE 336 Heat Transfer	3 MAE TE	3 Prof/Sc 2
	3 EAS 230 Eng Computation	3 EAS 207 Statics	3 EE 200 or EE 202	3 MAE 376 App Mth for MAE	2 MAE 334 MAE Lab I	2 MAE 338 MAE Lab II	3 Appl Mth Elec ***
3 EAS 199 UB Seminar	1 EAS 202 Eng Impact	3 MAE 204 Thermo		3 MAE 377 Prod Design:CAE	1 MAE 385 Eng Mat Lab		
--- OR ---							
1 EAS 198 UB Seminar	3/1 100+ TE	3 MAE 277 Intro MAE Prac		3 EAS 360 STEM Comm	3 Prof/Sc 1		Submit App for Degree
CL1	1 Gen Ed		1 Gen Ed			1 Gen Ed	Cap + 1 Gen Ed
15 credits	16 credits	18 credits	16 credits	18 credits	15 credits	14 credits	16 credits

***EAS 305, CIE 308, MAE 425, MAE 428, MTH 309, MTH 411, MTH 417, or MTH 418

The UB Curriculum

Global Path 1	Global Path 2	Global Path 3 *	Thematic Path 1	Thematic Path 2	Thematic Path 3 *
UB Area:	UB Area:		UB Area:	UB Area:	

UB Areas: Min of 4; 2 per pathway

ARTS SOC SCI

CIV/HIS LANG

HUM

* An approved MAE course can satisy the Path 3 course and a major requirement, as outlined in the credits by term above.

4 Comm Lit 1 ENG 105	1 UB Capstone	3 Diversity [2]

Appointments:

Global Pathway Topic:

Thematic Pathway Topic:

[2] An approved course can be taken anywhere in the program and may also satisfy another UB curriculum requirement. The outline above assumes students will satisfy this requirement with another required course.

Advising Report

MECHANICAL ENGINEERING B.S.

Not Satisfied: MECHANICAL ENGINEERING B.S. - 40 Courses Minimum/2.0 GPA Required (2016-Present) (RG-00606)

MECHANICAL ENGINEERING INTENDED PLAN NOTICE

Not Satisfied: You are currently in an Intended Plan. In order to graduate, you must be accepted by your department into an Approved Plan. Contact your Academic Advisor for further information. (RQ-01131)

FRESHMAN FALL

Not Satisfied: FRESHMAN FALL - 3 Courses Required (RQ-01066)

Calculus 1

Satisfied: Calculus 1 - 1 Course Required (LN-010)

The following courses may be used to satisfy this requirement:

Course	Description	Units	When	Grade	Status
MTH 141LR	College Calculus 1	4.00	Fall 2016	TA-	
MTH 153LLB	Honors Calculus 1	4.00	Fall Only		

View All | First 1-2 of 2 Last

Chemistry 1

Not Satisfied: Chemistry 1 - 1 Course Required (LN-020)

- Courses: 1 required, 0 taken, 1 needed

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UB Engineering

The School of Engineering and Applied Sciences

In carrying out their professional obligations, engineers and scientists are guided by fundamental ethical canons and rules of practice. The UB Engineering community is guided by the following principles.

UB Engineers and Applied Scientists:

- Act with honesty, integrity and fairness
- Show respect for others
- Accept responsibility
- Give credit where credit is due
- Serve the larger community
- Take pride in being a part of UB Engineering

Admission to SEAS

- Applies to intended engineering and computer science majors
- Please visit, https://www.eng.buffalo.edu/undergrad/admissions/current
- Criterion 1: Completion of four required core courses with grades of C– or better and a combined core course grade point average of at least 2.5. Students are permitted to repeat at most one core course one time. An 'R' (resign) grade does not count as a repeat.
  - Engineering Core: Calculus I, Calculus II, Chemistry I, and Physics I
  - Computer Science Core: Calculus I, Intro to CS I, Intro to CS II, and Discrete Structures
- Criterion 2: The minimum overall cumulative GPA required for the major. The GPAs required for admission vary by academic year and requested major.

Periodic Review of Intended Majors

- Applies to intended engineering and computer science majors

- The School of Engineering and Applied Sciences (SEAS) periodically reviews the academic progress of all students
- For intended majors, this review results in one of the following outcomes:

  - If the student is admissible to one or more SEAS programs, then he/she will be invited to join SEAS as an approved major
  - If the student is not currently admissible, but is making progress towards completing the core and could be admissible in the future, then he/she will remain in the intended engineering or computer science major
  - If the analysis reveals that the student is not currently admissible and will not be in the future, then he/she will be dropped from the SEAS intended major and placed in the university's undecided major
  - If the student passes on opportunities to enroll in core courses, then he/she will be dropped from the SEAS intended major and placed in the university's undecided major

Important Academic Regulations

- UB monitors overall GPA
- SEAS monitors technical GPA (approved majors only)
- If your cumulative or semester technical GPA is less than 2.0, you will be placed on academic probation
- If your semester technical GPA is less than 2.0 and your cumulative technical GPA falls below 1.4 or drops below 2.0 while on academic probation, you will be dismissed from SEAS

- A technical GPA of 2.0 or higher is required to graduate

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Professional Development Blueprint

A career preparation guide for undergraduate students in the School of Engineering and Applied Sciences

Check for updates and online resources at:
http://engineering.buffalo.edu/home/academics/beyond/professionalism.html

	1ST YEAR	2ND YEAR	3RD YEAR	4TH OR FINAL YEAR
EXPLORATION	Profile the credentials and specializations of faculty members or industry professionals. Explore engineering clubs and attend general meetings for clubs that interest you. Evaluate your interests, values, and skills by taking the MyPlan assessment and meet with a Career Counselor to discuss your specific results. Research study abroad opportunities.	Review research articles on topics of interest to become more familiar with contributors to the field and more versed in digesting academic writing. Observe a MS thesis or PhD dissertation defense presentation. Attend the Celebration of Academic Excellence to explore research and creative works by UB peers. Explore entrepreneurship resources like Blackstone LaunchPad.	Explore graduate schools and faculty research initiatives to prepare for campus visits and prepare for GRE, LSAT, or MCAT exams if necessary. Attend research seminars to keep abreast of current research in your discipline. Attend the spring Graduate Research Poster Competition. Research requirements for careers of interest and identify opportunities to fill skills gaps.	Explore considerations such as the cost of living, job market, and average salary in geographic areas of interest as you apply for jobs or graduate schools.
CONNECTIONS	Sign up for Engineering Small Groups for academic support in core curriculum courses. Participate in Saturdays of Service to serve your community and network with UB students and staff. Attend the spring Senior Design Expo to engage with students presenting their capstone design projects.	Participate in a Life and Learning networking workshop. Register for REALM, a professional networking and shadowing opportunity in the Buffalo or NYC regions. Research professional technical societies related to your discipline and carry out informational interviews with members of the organizations to learn more.	Develop a relationship with a faculty advisor. Identify and meet a career mentor through the UB Career Connector Network. Join a technical society related to your discipline.	Attend technical society meetings to network with professionals in your field. Join groups on LinkedIn reflecting specific careers or topics of interest within your discipline. After graduation, stay in touch with UB through UB Connect and the Engineering Alumni LinkedIn group.
EXPERIENCE	Pursue a self-led hands-on tinkering project to enhance technical skills and prepare for future team projects. Participate in Engineers Week and check out activities like Bot Wars and Quadcopter Racing. Study abroad in Troyes, France during the summer semester. Join an engineering club during the spring semester.	Participate in engineering intramurals, short-term extra-curricular projects completed in small groups. Engage in a leadership or communication workshop as part of the Life and Learning series. Apply for research opportunities through REU and CURCA. Run for an executive board position with an engineering club for junior year. Find an internship or co-op by participating in the STEM UP job and internship fair in the fall.	Participate in a CURCA research project at UB or spend the summer participating in Research Experiences for Undergraduates (REU). Run for the President or Director of an engineering club for your senior year. Find and pursue an internship or co-op through STEM UP, Bullseye, Indeed etc.	Continue internships or find a student assistant/grader position. Continue to contribute to student clubs and other organizations, taking on an increasing level of responsibility.
CAREER FUNDAMENTALS	Learn about professional etiquette for writing e-mails and dressing to impress. Participate in a time management workshop as part of the Life and Learning series. Create a resume and set up a student profile on Bullseye, an interactive job and internship resource. Observe the fall STEM UP job and internship fair to prepare for active participation the following year.	Attend a LinkedIn workshop through the Life and Learning series. Attend a job and internship search strategy workshop as part of the Life and Learning series. Make an appointment at Career Services to have your resume, cover letter, and LinkedIn profile reviewed prior to applying for an internship.	Polish your interviewing skills by doing a practice interview session with Career Services. Update your resume as you master new skills, projects, and experiences. Learn about the requirements for Professional Engineer (PE) Licensure.	Search for job opportunities by engaging with employers at the fall STEM UP job and internship fair. Apply to graduate schools and/or graduate fellowships. Attend a UB salary negotiation workshop. Register to take the Fundamentals of Engineering Exam. Complete the First Destination Survey in the spring.

http://engineering.buffalo.edu/home/academics/beyond/professionalism/blueprint.html

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University at Buffalo
School of Engineering and Applied Sciences

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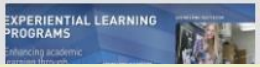
School of Engineering and Applied Sciences > Academics > Beyond the Classroom > Experiential Learning

Beyond the Classroom

- Experiential Learning
  - Tinkering
  - Engineering Intramurals
  - Internships and Co-Ops
  - Senior Design
- Online Learning
- Resources for Professionalism
- Resources for Entrepreneurs and Intrapreneurs
- Professional Engineer (PE) Licensure
- Student Clubs and Organizations
- Career Resources
- Continuing Your Education



EXPERIENTIAL LEARNING

Connecting the Classroom to the Real World

Our Experiential Learning Programs help students develop professionalism and a practical perspective by connecting the classroom to the real world.

The experiential learning continuum encourages students to "engineer today" in addition to attending class. Continuous, experiential learning enlarges students' technical competence and prepares them for their future careers.

Programs

Tinkering

Tinkering is the first step in the ELP continuum. Students pursue self-led, hands-on practice as a precursor to being involved in more significant activities.

Student Professional Societies

- American Institute of Aeronautics & Astronautics
- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Mechanical Engineers
- Institute of Electrical and Electronic Engineers
- Institute of Industrial Engineers
- National Society of Black Engineers
- National Society of Professional Engineers
- Society of Automotive Engineers
- Society of Hispanic Professional Engineers
- Society of Manufacturing Engineers
- Society of Women Engineers

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UB Orientation

Your 1st semester schedule

- UB Seminar – EAS 199 or CSE 199
- Chemistry requirement and/or Computer Programming requirement (CEN and CS)
- Math Requirement
- UB Curriculum (General Education) Communication Literacy 1, Pathway requirement, or ESL Requirement

Total Credits: 14-18

UB Orientation

EAS 199 (Principles), Sections A, B, C or D

- Required for all first-year engineering majors **directly admitted to SEAS (except computer engineers/scientists)**
- Seminars meet Mondays, Wednesdays, Fridays at noon
- Project-based class that teaches how to "think like an engineer" on real world problems
  - Alternative energy theme
  - Engineering principles and analysis
  - Hands-on project
  - Interaction with engineering professionals
- Professional Development
  - Career Exploration
  - Academic Transition

We do not accept Project Lead the Way credit for this course requirement.

EAS 199 (Principles), Sections A, B, C or D

EAS 199 (Principles) NOTE: First lecture class at 12 noon on Monday, August 28th will take place in the **Main Stage Theatre in the Center for the Arts**, instead of your normally assigned classroom.

EAS 199 (Principles) Labs meet the first week of classes, beginning Monday August 28.

UB Orientation

EAS 199 (Challenges), Sections I, J, K, or L

- **Recommended for all first year intended engineering majors (except computer engineers/scientists)**
- Seminar times vary
- Students with an interest in engineering explore the engineering disciplines, and characteristics of good engineers:
  - Technical competence (technical knowledge, problem-solving skills, creativity
  - Interpersonal skills (strong technical communication, effective teamwork)
  - Work ethic (attention to detail, diligence, persistence);
  - Moral standards: honesty, integrity.
- This exploration will be facilitated through team projects, individual assignments and a professional development and career planning portfolio.

We do not accept Project Lead the Way credit for this course requirement.

EAS 199 (Challenges), Sections I, J, K, or L

EAS 199 (Challenges) NOTE: First lecture class meets in your normally assigned classroom

EAS 199 (Challenges) Labs meet the first week of classes, beginning Monday August 28

UB Orientation

CSE 199 – How the Internet Works: Fall Semester

- Required for all directly admitted first-year computer engineering (CEN) and computer science (CS) majors
- Recommended for all intended first-year CEN and CS majors
- Provides an overview of how the Internet works by describing everything required to answer a single search query
- Reviews the Internet's past and future, policy challenges, and societal implications
- Familiarity with the web and access to a personal computer are assumed, but no technical background is required

UB Orientation

Additional 1st Semester CSE Courses

- **CSE 115 Intro to Computer Science for Majors 1 (4 cr)**

Required for Computer Science and Computer Engineering majors

Provides the fundamentals of the field to computer science and computer engineering majors, introducing students to algorithm design and implementation in a modern, high-level programming language. Emphasizes problem solving by abstraction.

Prerequisite: No previous programming experience required. Pre-calculus (MTH 115 or ULC 148) or appropriate math placement test scores or co-requisite of Calculus 1 (MTH 121 or MTH 131 or MTH 141).

- **CSE 111 Great Ideas in Computer Science (4 cr)**

The Internet has revolutionized our lives and has impacted how we carry out daily tasks. This course will use web technologies, and basic programming, as a tool to compute and convey solutions for data-rich problems. Basic algorithmic techniques will be used to perform quantitative analysis of data. Results will be presented using web technologies.

Prerequisite: No previous programming experience required. For students not mathematically prepared to start in CSE115.

UB Orientation

1st Semester Science

- CHE 100 Introduction to Chemistry (4 cr)
  Helps prepare students for General Chemistry
- CHE 105 Honors Chemistry I (5 cr)
  For students who are interested in majoring in a chemistry-related science.
  (satisfies the CHE 107 requirement)
- CHE 107 General Chemistry I for Engineers (4 cr)
  As indicated on the FAQ:

  CHE 107 has a lecture, recitation, and a lab. Attendance at all components is required. Although the room locations for the lab component may be listed in your schedule as "Nsc Arr" (section ID ends with an "8"), a particular lab room will eventually be listed in your schedule.

A-Level exam chart:
http://registrar.buffalo.edu/tc/pdfs/GCEchart.pdf
(CHE 101 will satisfy CHE 107; CHE 102 will satisfy CHE 108)

1st Semester Science, cont.

- PHY 107 General Physics I (4 cr):

  A calculus-based introductory course primarily for chemistry, engineering, and physics majors. Covers kinematics, Newton's laws, energy, momentum, rotational motion, and oscillations.

  Normally taken in spring term, unless majoring in engineering physics.

  Engineering physics majors often take PHY 107 in the fall semester along with CHE 107, EAS 199, MTH 141, and one gen ed.

  Computer Science majors should wait until sophomore year to begin science requirement.

A-Level Physics is not PHY 107; see the chart at http://registrar.buffalo.edu/tc/pdfs/GCEchart.pdf

UB Orientation

1st Semester Mathematics

- ULC 147 Intermediate Algebra (4 cr)
  - Helps prepare students for ULC 148
- ULC 148 Intermediate Algebra and Trigonometry(4 cr)
  - Reviews precalculus algebra and trigonometry, emphasizing functions
- MTH 141 Calculus I (4 cr) or (MTH 121 Survey of Calc I if CS BA)
- MTH 142 Calculus II (4 cr) or (MTH 122 Survey of Calc II if CS BA)
  - For students with transfer or AP credit for Calculus I
- MTH 241 Calculus III or MTH 306 Diff Equations (4 cr)
  - For students with credit for Calculus I and II

A-Level exam chart:
http://registrar.buffalo.edu/tc/pdfs/GCEchart.pdf

Web-based Are You Ready quiz/reviews at:
http://www.math.buffalo.edu/rur_index.html

UB Orientation

1st Semester Mathematics: ALEKS

- Assessment and Learning in Knowledge Spaces (ALEKS): Math Placement Assessment
- UB requires an ALEKS PPL Assessment to determine readiness of any student enrolled in MTH 121, 141, 131
  - Web-based exam
  - About 30 questions
  - Average completion time is 90-minutes
  - You must achieve a score of 76 (out of 100) or better to demonstrate your readiness for MTH 141 (or 61 for MTH 121 and 131)
  - Three attempts are allowed

DEADLINE: All **international students** must complete the ALEKS assessment by **Friday, September 1** and obtain the required score of 76 or better to remain registered in MTH 141 (or 61 to remain in MTH 121/131)

http://www.buffalo.edu/cas/math/ug/math-help/aleks.html

UB Orientation

UB Curriculum Requirements:

UB Seminar	EAS 199, CSE 199, or XXX 199	3 credits
Communication Literacy	ENG 105 and EAS 360	4-7 credits
Math and Quantitative Reasoning	SEAS students satisfy this requirement with MTH 141 (CS BA students may use MTH 121/MTH 131)	
Scientific Literacy and Inquiry	Engineering majors satisfy this requirement with PHY 107 and CHE 107. CS students must complete at least 7 science credits, including a lab.	
Diversity Learning	One course focusing on domestic diversity	3 credits
Thematic Pathway	Three courses in a Thematic area	9 credits minimum
Global Pathway	Two or three courses in a Global area	9 credits minimum
UB Capstone	Culminating UB Curriculum course	1 credit

http://engineering.buffalo.edu/home/academics/undergrad/first-year/ub-curriculum.html

Pathway Info for Engineering and Computer Science Students: http://www.eng.buffalo.edu/undergrad/advisement/pathways/

UB Curriculum Communication Literacy Requirement

UB Orientation

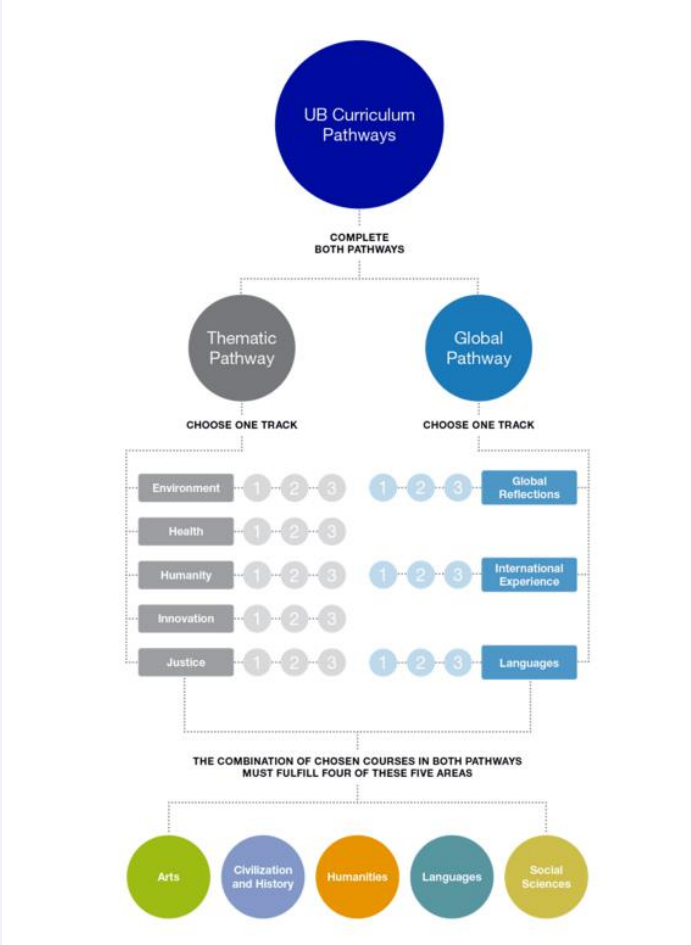
- Placement in English classes is based on SAT, ACT, TOEFL, and/or IELTS scores.
- Students who score high on TOEFL and IELTS place into ENG 105, the UBC Communication Literacy 1 requirement.
- Some students are advised to develop their English language skills by taking ENG 100, a preparatory course, prior to ENG 105.
- Conditionally admitted students take ESL 411 and ENG 100 in the first semester, along with a UB Seminar and either Math, Chemistry, or Computer Science.

http://advising.buffalo.edu/advisors/newstudentreg/pdfs/TOEFL_IELTS_Placement.pdf

UB Curriculum: Pathway Requirements

UB Orientation

- Students take both a **Thematic** and a **Global** Pathway.
- Each Pathway requires a minimum of nine credit hours of study.
- The Pathways connect classes by theme or concept, allowing you to pursue ideas across a broad range of disciplines, methodologies, and modes of experience.
- The Pathways invite you to approach learning as a continuum, and to actively make connections between classes by drawing various strands together to create a larger whole.



UB Curriculum: Pathway Requirements

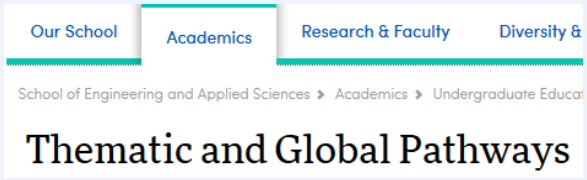
UB Orientation

- **How will I know if I need to take a Pathway course this fall?**
  - Some students are advised to take a Pathway course in their first semester
  - The decision is based upon major, first semester load, and other factors
  - Some first year students complete a significant amount of AP, Transfer, A-Level, or other college credit prior to starting UB this fall. This credit can impact your need for a Pathway course, regardless of major.
  - Students who need to register for a fall pathway course will follow me to a computer lab when finished with this session to receive further instruction

UB Orientation

UB Curriculum Tools

[Visit the SEAS Thematic and Global Pathways Page](#)
Start here for guidance on how to select pathways that will satisfy the required UB Areas and the Diversity Requirement.



Watch the Pathways Tutorial Video

[Pathway Tutorial:](#)

[Designate pathway selections on Pathfinder and save to HUB](#)

Once you've selected the Pathway class that you wish to add to your fall schedule, you must register for the class using the HUB Student Center. [View the HUB Registration and Schedule Builder Tutorial](#)

[How to Register for Classes:](#)

UB Orientation

Your 1st semester schedule

- UB Seminar – EAS 199 or CSE 199 (3 cr)
- Chemistry requirement and/or Computer Programming requirement (CEN and CS) (4-8 cr)
- Math Requirement (4 cr)
- UB Curriculum (General Education) Communication Literacy 1, Pathway requirement, or ESL Requirement (3-7 cr)

Total Credits: 14-18

- 12 credits (minimum) are necessary to be a full-time student; full-time students are billed a full-time rate, not a per-credit rate, so tuition charges do not accrue for additional credits beyond 12
- 15 credits (minimum) are necessary to be eligible for dean's list: https://catalog.buffalo.edu/policies/deans_list.html
- 15-18 credits are typically necessary to graduate in 4 years with an SEAS major
- 19 credits is the maximum permitted per semester without special permission; first semester non-honors engineering students are not granted special permission

UB Orientation

FAQ: I want to change my major. How do I do this and do I have to change my schedule?

If you are changing between two engineering majors and neither of these is computer engineering or engineering physics, you will not need to change your first-semester schedule.

However, if you are switching to or from **Computer Science, Computer Engineering, or Engineering Physics**, your requirements may change and you should discuss this with an advisor.

- If you are already in an SEAS major, to have a change in your major processed in the HUB Submit the Major Change form online
  http://engineering.buffalo.edu/home/academics/undergrad/admissions/change.html

- If you are in some major other than SEAS, to request a change in your major to SEAS in the HHUB, submit our supplemental application:
  http://engineering.buffalo.edu/home/academics/undergrad/admissions/current.html

And notify International Student & Scholar Services in 210 Talbert Hall after receiving email notice of change (given your VISA requirements)

UB Orientation

Important Dates for Fall 2017

- Classes Begin: Monday, August 28
- Last Day to Add/Drop: Tuesday, September 5, 11:59 pm EST
  (changes will not appear on transcript; no financial liability)

  For advisement assistance following today, go to 410 Bonner Hall; we see all students on a walk-in basis during add/drop (no appointments required)
- Last Day to Resign: Friday, November 10, 11:59 pm EST
  (Grade of "R" permanently on transcript; affects attempted credits/financial aid; full financial liability; several academic implications)
- Last Day of Classes: Friday, December 8
- Final Exams: Monday, Dec. 11 – Monday, Dec.18

UB Orientation

Next: Registration!

- Students who are already registered for all classes as advised are done with the academic portion of your orientation
- Students who are not registered at all yet will follow Ronald to 410 Bonner Hall for advisement/registration assistance
- Students who are partially registered and who need to add a Pathway or a UB Seminar will follow me to 201 Capen Computer Lab (inside the Library)