

2020 Summer Orientation Student Guidebook

FIRST-YEAR ENGINEERING PROGRAM



UNIVERSITY OF
ARKANSAS

College of Engineering

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This guidebook will...

- ☑ **Teach you about the First-Year Engineering Program (FEP)**
 - ☑ **Provide information to prepare for one-on-one advising**
 - ☑ **Be a resource after orientation**
- ## Still have questions...
- ☑ **Students should contact FEP by phone 479-575-4540 or send an email from their UARK account to fep@uark.edu**

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First-Year Engineering Program Overview

The First-Year Engineering Academic Program is a two-semester program required for all incoming freshmen starting in the College of Engineering and all transfer students who have not completed Calculus I. Students are initially declared as “Engineering First Year Students”. During the spring semester, students will select their major and transition to their new department to begin discipline-specific courses their second year.

The two-semester curriculum includes the following:

- Introduction to Engineering I and II
- Two mathematics courses
- Science courses based on student’s math progress
- Composition I and II
- At least one university core elective

FEP is designed to provide proactive support for all new freshmen entering the College of Engineering. Particular emphasis is placed on academic, personal and career success, which leads to student success. The Peer Mentoring Program is a major component of helping students transition successfully into the College of Engineering.

Peer Mentoring

To help first-year students ease the transition from high school to college, each student is paired with an upperclass engineering student who helps with academic, professional, and personal development. Students are required to meet weekly with their Peer Mentor through the fall and spring semesters.

Academic Advising

During orientation, students are advised one-on-one with an FEP academic advisor. Students do not have to decide on an engineering major at that time. Advisors will help students select classes that meet requirements for multiple engineering majors. Students will be assigned a FEP academic advisor in early August. Until then, students can contact the First-Year Engineering Program for assistance.

During the first week of fall classes, we will have open advising from 8:00 am – 5:00 pm to help with changes or clarifications for class schedules. Students do not need to see their assigned academic advisor during this week. In October, students will meet with their assigned FEP academic advisor to plan for spring classes.

First-Year General Engineering (GNEG) Courses

GNEG 1111 & 1121 Introduction to Engineering I and II

The Introduction to Engineering course sequence incorporates the learning and application of skills required of engineers through project planning techniques, project management, conflict resolution, process planning, critical thinking, and analysis. These skills are introduced through lessons taught in a flipped classroom format and projects.

As engineers of the 21st century the use of computing and basic programming are vital. In Introduction to Engineering I, the project will focus on programming.

During the spring semester, students will have the opportunity to investigate different themes which utilize skills more directly related to their potential major.

Students in the Honors College may elect to take honors versions of GNEG 1111 & GNEG 1121.

Note: Only students who place into Precalculus or higher may enroll in GNEG 1111.

GNEG 1201 Fundamentals of Success in Engineering Study

The Fundamentals of Success in Engineering Study course is required for students who place in College Algebra. This course is designed to help students who are not as far along in the math sequence develop skills and habits which will benefit them in their engineering study and strengthen their fundamental math skills. This includes introducing students to campus resources, examining study skills, reinforcing mathematical concepts, and connecting students to the engineering majors at the University of Arkansas. Students who complete this course and pass their math course will begin with the Introduction to Engineering course sequence the following semester.

Students enrolled in GNEG 1201 will delay completing GNEG 1121 until the fall of their second year.

Peer Mentoring Program

Why do I need a Peer Mentor?

This is a great question, and one that we cannot fully answer for you. You will need to decide for yourself what kind of experience you wish to have with your Peer Mentor. What we can tell you is that your Peer Mentor is a resource for you this first year. Do you know how things work at the University of Arkansas? Do you know how things work within your specific engineering major? Do you know how to utilize all the online functions at the university (like submitting homework through Blackboard or registering for classes)? Have you considered what the various expectations of instructors will be at the college level, and how they might vary from class-to-class? For many of you, the answer will be no—but guess what, your Peer Mentor has the knowledge and experience to guide you in the right direction. Our mentors are upperclass engineering students who have already experienced many of the same struggles and challenges you may encounter during your first year, or even in future semesters, and they are here to listen and talk you through them.

Peer Mentors are not tutors, but they are someone you can talk to about academic or personal concerns and questions that you may have. You may come from a small town where you had a solid friend group, but now find yourself in a much larger and completely unfamiliar community - who do you turn to? Some of you will come in never having experienced any academic struggles, but now you find yourself needing to put in twice the amount of effort to stay to achieve your goals – who do you ask about adjustments? Some of you don't know which engineering major is the right fit, and some of that has to do with not knowing all the different disciplines – who can you talk to about this? When it is time to start applying for internships, co-ops, research programs, or study abroad but have no idea where to start – who do you talk to about this? The answer to all of these questions: your Peer Mentor.

You are required to meet with your Peer Mentor as part of your first year GNEG courses, but what you discuss in those meetings is entirely up to you. What you can gain from those meetings will also be entirely dependent on you. Will you make the most of this opportunity? Will you remain quiet because you feel this isn't "cool"? Because you "don't see a point"? Will you believe that you don't need help, or struggle with the idea of asking for help because it might make you look or feel "stupid?" One of the very first challenges you will have to overcome at college is realizing that you must have the courage to ask for help. Let your Peer Mentor be that bridge to finding you the help you need to succeed at the University of Arkansas and within the College of Engineering!

How will I know who my Peer Mentor is?

After your one-on-one advising for orientation, you will finish registering for classes. Once you have your schedule, you will then complete a peer mentor match survey. You will be matched with a survey based on different factors such as common engineering

degree, starting Math Placement, personality similarities, and other likes and interests. This matching process is not designed to be perfect or flawless, and sometimes you get paired with a mentor who is studying a different field of Engineering than you will be, but even so you were matched based on some common factor(s). Regardless of why you were matched, you all share the bond of pursuing an Engineering degree here at the University of Arkansas! You will meet your Peer Mentor virtually from 7-8 PM on Thursday, August 27.

What kinds of topics will Peer Mentors cover in one-on-one meetings?

The transition from high school level studying and course work to the university level is expected to be a challenge for the majority of our incoming students, but many underestimate the true degree of difficulty in this change — even the best and brightest students can struggle during their first year, and the struggle isn't always academic. To help students adjust to this new and often demanding workload, Peer Mentors will guide their mentees through topics such as time management, developing relationships with professors, and effective study habits. Peer Mentors help students build an understanding of the campus resources and strengthen first-year students professionally, through resume building and interview prep. While there will always be a topic of the week to cover, ultimately these meetings are dependent upon your needs and questions during that given week –Peer Mentors are here to be a resource and guide FOR YOU!

"I once arrived to a peer mentor meeting incredibly disheartened with a failing exam grade and felt as though I could not possibly make it through engineering. However, Brianna shared her freshman experience where she too failed an exam. She told me that I am not defined by an exam grade and to keep going forward. At the end of the semester I was able to pull my grades up and received an A in the class I was sure I was going to fail."

"One week, I felt very discouraged about finding an internship, so she [my mentor] shared a few experiences with me about her personal journey in dealing with companies (failure and success) which was encouraging. I realized that every failure brings me one step closer to my next success. Because of this, I feel more confident in attending the next career fair or seeking an internship on my own."

"Cady is the reason that I survived my first semester as an engineering major. When I was struggling with my classes, she led me to resources such as Class + and gave me little tips on how to thrive in my difficult classes. She suggested resources such as visiting the Physics Library or the Calc Corner. Cady saw that I was struggling, not because I was incapable of passing my classes, but because I needed extra support. She was my support system."

Joining the Honors College

Incoming first-year engineering students with a minimum ACT composite score of 28 or SAT combined score of 1310 AND a high school GPA of 3.5 or higher are eligible to join the Honors College their first year. Students who do not meet these criteria when they enter the University of Arkansas may apply after earning a 3.5 UofA GPA. Students must be in the Honors College to enroll in Honors courses.

Visit the Honors College website for more information and to apply online.
honorscollege.uark.edu

Honors Physics

Honors students may elect to take PHYS 2054H Honors University Physics I. Students will have the same assignments as those in the regular course plus an additional project requirement. Honors University Physics I requires the students to propose and then carry out an honors project that relates to the material in the course and is of interest to the students. The project can be either a designed experiment, proof of concept model, or a research paper.

Honors Math

Honors mathematics courses go more in depth into the underlying mathematics with proofs and a wider variety of applications. These courses are rigorous and are designed for students who want a deep understanding of mathematical concepts.

Two honors math courses are available in the fall: 1) MATH 2554H Honors Calculus I requires ACT Math score of 30 or SAT Math score of 710. 2) MATH 2574H Honors Calculus III requires an A in MATH 2564 Calculus II or 5 on the Calculus BC exam.

Study Abroad and Research Grants

Students in the Honors College may also apply for grants to fund research or study abroad programs. One of the best times for engineering students to study abroad or begin undergraduate research is the summer after their freshman year.

By the time of application, students must have 6 honors hours on the UofA campus. If you plan to study abroad after your freshman year, you must complete a total of six honors hours by the end of the spring semester. Honors credit earned from AP courses do NOT count towards these minimum honors hours requirements. Specific requirements can be found on the Honors College website.

More information about study abroad can be found at studyabroad.uark.edu.

Engineering first-year students looking to gain experience above and beyond what is covered in the typical Introduction to Engineering I and II sequence may apply to participate in the FEP Honors Experience if they are in the Honors College, have a high school GPA ≥ 3.75 and have AP credit for calculus 1. The AP math requirement will be waived for students graduating from Arkansas School for Math, Science and the Arts or other schools that do not offer AP math. Students who wish to apply to participate in the Honors Experience must also submit an application essay.

Honors Research Experience (HRE) - For the fall semester, students enroll in GNEG 1311H Honors Research Experience I. These students attend weekly research seminars delivered by University of Arkansas faculty and learn to utilize library resources to conduct background research on engineering topics. Students also begin working in teams of two on undergraduate research projects defined and mentored by a member of the College of Engineering faculty. Students continue their research in the spring semester in GNEG 1321H Honors Research Experience II.

Honors Innovation Experience (HIE) - For the fall semester, students enroll in GNEG 1411H Honors Innovation Experience I. These students will explore topics in innovation and entrepreneurship including lean start-ups, intellectual property, venture capital, product costs, and marketing channels via seminars presented by industry professionals. Students will work in interdisciplinary teams of engineering and business students and have University of Arkansas faculty mentors with experience in innovation or entrepreneurship to help them with innovative design projects. Students will consider product market and business development plans. In the spring semester, students continue to develop their innovative design in GNEG 1421H Honors Innovation Experience II.

In April, students participate in the Honors Engineering Symposium. For the symposium, each team of students participates in a poster session and delivers a 20-minute technical presentation. All symposium activities are judged by a panel comprised of former symposium participants.

Students who are admitted into HRE or HIE will also be required to enroll in the Honors Experience theme for GNEG 1111H Honors Introduction to Engineering I along with their desired Honors Experience course. This section of GNEG 1111H will not include the programming component.

How to Apply for Honors Research?

The deadline to apply for the Honors Experience is Wednesday, July 22, 2020. Applicants should begin checking their UARK email account on July 29, 2020 for notice of acceptance. All applicants will be notified of acceptance by August 3, 2020. Application can be found at first-year-engineering.uark.edu/honors-experience.php

State Minimum Core Requirements

All University of Arkansas students must complete specified courses in the State Minimum Core to graduate. These two pages indicate how the State Minimum Core can also satisfy the learning outcomes of the General Education Curriculum for engineering degrees. These courses must be completed by graduation and are not direct pre-requisites to any engineering specific courses.

NOTE: Please note the listing assumes students have no incoming credit. Advisors will help students determine how incoming credit will fulfill requirements. The listing of courses validated to satisfy Outcomes in the General Education Curriculum is dynamic, and subject to change as new courses are added and current courses are dropped. The General Education Curriculum information in the Catalog of Studies should be checked regularly for changes to course listings associated with each outcome. catalog.uark.edu

ENGLISH

- ENGL 1013 or ENGL 1013H satisfies learning outcome 1.1
- ENGL 1033 satisfies learning outcome 1.2.
 - All engineering degrees EXCEPT Computer Science and Computer engineering require ENGL 1033.
 - ENGL 1023 satisfies the State Minimum Core but not the General Education Curriculum
- Students with ACT English scores of 30 or greater or SAT Evidence-Based Reading and Writing scores of 690 or greater are exempt from ENGL 1013 and ENGL 1023.
- Students with exemption or credit will discuss requirements in one-on-one advising.

MATHEMATICS

- MATH 2554 Calculus I is required by all engineering degrees and satisfies learning outcome 2.1.

SCIENCE

- Engineering degrees require at least 4 science courses satisfying learning outcome 3.4

SOCIAL SCIENCE

- Students must satisfy the Social Science State Minimum Core with three unique courses, none of which were taken to satisfy the U.S. History/Government State Minimum Core requirement.
- One course must satisfy learning outcome 4.1.
- Courses must be taken from at least 2 departments.
- The following degrees require an economics course:
 - Chemical and Mechanical engineering require ECON 2013 or ECON 2143
 - Electrical engineering requires ECON 2013, ECON 2023 or ECON 2143
 - Industrial engineering requires ECON 2143 or both ECON 2013 and ECON 2023
- Students interested in Premed should take SOCI 2013 and PSYC 2003 to prepare for the MCAT.

HUMANITIES

- All majors EXCEPT Computer Science and Computer Engineering satisfy learning outcomes 3.2 and 5.1 by taking one of the courses listed on the next page.
- Computer Science and Computer Engineering requires a different humanities course, PHIL 3103 Ethics and the Professions. Students interested in these majors will not take a humanities course during their first year.

English (2 courses)

- ENGL 1013 Composition I
- ENGL 1033 Technical Composition II
or ENGL 1023 Composition II

Fine Arts (1 course)

- ARHS 1003 Basic Course in the Arts: Art Lecture
- COMM 1003 Basic Course in the Arts: Film Lecture
- DANC 1003 Basic Course in the Arts: Movement and Dance
- MLIT 1003 Experiencing Music
- MLIT 1013 Music and Society
- MLIT 1333 Popular Music
- THTR 1003 Basic Course in the Arts: Theatre Appreciation
- THTR 1013 Musical Theatre Appreciation

Humanities (1 course)

- CLST 1003 Intro to Classical Studies: Greece
- CLST 1013 Intro to Classical Studies: Rome
- PHIL 2003 Intro to Philosophy
- PHIL 2103 Intro to Ethics

History (1 course)

- HIST 2003 History of the American People to 1877
- HIST 2013 History of the American People 1877 to Present
- PLSC 2003 American National Government

Social Science (1 course to satisfy 4.1 outcome)

- ANTH 1023 Intro to Cultural Anthropology
- COMM 1023 Communication in a Diverse World
- HDFS 1403 Life Span Development
- HDFS 2413 Family Relations
- HIST 1113 Institutions and Ideas of World Civilizations I
- HIST 1123 Institutions and Ideas of World Civilizations II
- PLSC 2013 Intro to Comparative Politics
- RESM 2853 Leisure and Society

Social Science (2 courses)¹

- AGEC 1103 Principles of Agricultural Microeconomics
- AGEC 2103 Principles of Agricultural Macroeconomics
- ECON 2013 Principles of Macroeconomics
- ECON 2023 Principles of Microeconomics
- ECON 2143 Basic Economics: Theory and Practice
- GEOS 1123 Human Geography
- GEOS 2003 World Regional Geography
- HDFS 2603 Rural Families and Communities
- HIST 2003 History of American People to 1877
- HIST 2013 History of American People 1877 to Present
- HIST 2093 Animals in World History
- PLSC 2003 American National Government
- PLSC 2203 State and Local Government
- PSYC 2003 General Psychology
- SOCI 2013 General Sociology
- SOCI 2033 Social Problems

¹Students may also take courses in the History and Social Science 4.1 groups if they have not been used to meet requirements. One course cannot be used to meet multiple core requirements.

Credit by Advanced-Standing Programs

Advanced Placement Program

AP examinations listed below are for classes specific to engineering requirements for State Minimum Core. Students will discuss actual and anticipated AP scores one-on-one with an advisor during orientation. A complete list can be found in the Academic Regulations section of the Catalog of Studies. catalog.uark.edu

AP Examination	UA Course	Minimum Score
English		
Language and Composition	English 1013	3C
Language and Composition	English 1013H	5C
Math		
Calculus AB	MATH 2554	3C
Calculus AB	MATH 2554H	5C
Calculus BC	MATH 2554 & MATH 2564	3C
Calculus BC	MATH 2554H & MATH 2564H	5C
Calculus AB Subscore	MATH 2554	3C
Science		
Biology	BIOL 1543/1541L	4C
Biology	BIOL 1543H/1541M	5C
Chemistry	CHEM 1103/1101L & CHEM 1123/1121L	4C
Chemistry	CHEM 1103/1101L & CHEM 1123H/1121M	5C
Environmental Sciences	GEOS 1133/1131L	3C
Physics 1: Algebra-Based with Cal AB or BC score of 3	PHYS 2054	4C
Physics 1: Algebra-Based with Cal AB or BC score of 3	PHYS 2054H	5C
Physics C Mechanics	PHYS 2054	3 Cq ¹ , 4C
Physics C Mechanics	PHYS 2054H	5C
Physics C, E & M	PHYS 2074	3 Cq ² , 4C
Physics C, E & M	PHYS 2074	5C
Fine Arts		
Art History	ARHS 1003	3C
Art History	ARHS 1003H	5C

Music Theory	MLIT 1003	3C
U.S. History/Government		
U.S. Government and Politics	PLSC 2003	3C
U.S. Government and Politics	PLSC 2003H	5C
U.S. History	HIST 2003 or HIST 2013	3C
U.S. History	HIST 2003 or HIST 2013	5C
Social Science		
European History	HIST 1123	4C
Government and Politics: Comparative	PLSC 2013	3C
Human Geography	GEOS 1123	3C
Macroeconomics	ECON 2013	3C
Microeconomics	ECON 2023	3C
Psychology	PSYC 2003	3C
World History	HIST 1113 or HIST 1123	3C
World History	HIST 1113 and HIST 1123	5C
Other Engineering Course		
Computer Science A	CSCE 2004	3 Cq ³ , 5C

Symbols for placement and credit:

C = credit

Cq = qualified credit (placement and credit subject to departmental review)

- Students who earn 3 on Physics C Mechanics can earn credit for PHYS 2054 by passing a departmental test or earning a C or higher in PHYS 2074.
- Students who earn 3 on Physics C, E & M can earn credit for PHYS 2074 by passing a departmental test.
- Students who earn a 3 on Computer Science A can earn credit for CSCE 2004 by passing a departmental test.

International Baccalaureate (IB) and College Level Examination Program (CLEP)

Students may also earn college credit by completing IB exams or taking CLEP tests. CLEP credit can only be earned for MATH 1203 College Algebra and MATH 2554 Calculus I. No CLEP credit is awarded for MATH 1284 Precalculus.

Information on the requirements for the IB exam and CLEP tests can be found in the Academic Regulations section of the Catalog of Studies. catalog.uark.edu

Math Requirements for Engineering

Progression through the math sequence is essential for students to be able to take required sophomore-level engineering courses. Students who have not completed Calculus II prior to their second year may delay starting discipline-specific courses.

Math Course	Engineering Majors
MATH 2554C Calculus I	Required for All Majors.
MATH 2564C Calculus II	Required for All Majors.
MATH 2574C Calculus III	Required for All Majors EXCEPT Biomedical Engineering and Computer Science.
MATH 2584C Differential Equations	Required for All Majors EXCEPT Computer Science.
MATH 2603 Discrete Mathematics	Required for Computer Science and Computer Engineering.
MATH 3083 Linear Algebra	Required for Biomedical Engineering and Computer Science.
MATH 3103 Combinatorics & Discrete Mathematics	Required for Computer Science.

Science Requirements for Engineering

Engineering students are required to take at least four science courses. Biological, Biomedical, and Chemical engineering require additional science courses.

Science Course	Engineering Majors
CHEM 1103 University Chemistry I <i>(Lab is not required for engineering students.)</i>	Required for All Majors.
PHYS 2054 University Physics I	Required for All Majors.
CHEM 1123/1121L University Chemistry II with lab	Required for Biological, Biomedical and Chemical Engineering. Elective for all other majors.
PHYS 2074 University Physics II	Required for all majors EXCEPT Civil Engineering and Computer Science.
BIOL 1543/1541L Principles of Biology with lab	Required for Biological and Biomedical engineering. Elective for all majors EXCEPT Chemical Engineering.
GEOS 1113/1111L General Geology	Required for Civil Engineering. Elective for Computer Science, Computer, Industrial and Mechanical Engineering only.
ASTR 2003/2001L Astronomy	Elective for Computer Science, Computer, Industrial and Mechanical engineering only.

Students pursuing Biological, Biomedical, and Chemical engineering with credit for PHYS 2074 and CHEM 1123/1121L can talk with their advisor about other science courses for the fall.

Students' fall schedules will be determined by their math class. Qualifications for each math class can be met by fulfilling one of the requirements in the table below. For more information on the ALEKS Math Placement test, visit mathplacement.uark.edu.

Failure to complete Calculus II prior to the start of the second year can impact the ability to take discipline specific courses.

Desired Math Course		Qualification <i>(must meet one of these criteria)</i>			
Number	Name	Prerequisite Course <i>(C or better)</i>	ALEKS Math Placement Score	ACT Math	SAT Math
MATH 1203 & MATH 0002L	College Algebra with 2 hour lab		<30	<19	<510
MATH 1203 & MATH 0001L	College Algebra with 1 hour lab		30	19	510
MATH 1203	College Algebra		46	23	570
MATH 1284C	Precalculus Mathematics	MATH 1203	60	26	620
MATH 1514	Calculus with Alg & Trig I	MATH 1203	60	26	620
MATH 2445	Calculus I with Review	MATH 1284C or MATH 1213 <i>Or 2 on the Calculus AB or BC Exam</i>	70	28	660
MATH 2554C	Calculus I	MATH 1284C or MATH 1213 <i>Or 2 on the Calculus AB or BC Exam</i>	76	28	660
MATH 2564C	Calculus II	MATH 2445 or MATH 2554C			
MATH 2574C	Calculus III	MATH 2564C			
MATH 2584C	Differential Equations	MATH 2564C			
MATH 2603	Discrete Math	MATH 2554C			
MATH 3083	Linear Algebra	MATH 2554C			

Temporary Math Overrides into Higher Course

Some students may qualify for a temporary override into a higher math class than indicated by ACT or math placement scores. Temporary overrides are only granted for:

1. Pending AP credit from Calculus AB, Calculus BC, or IB Calculus exams.
2. Pending transcripts from another institution with college credit for a prerequisite.
3. Pending and verified higher ACT or SAT math scores that have not been sent to UofA

See page 17 for more information about overrides

Course Scheduling for Calculus I or Higher

Students who begin in Calculus I are on track with math. The fall semester schedules below represent two possible alternatives. For some students, we recommend taking one science in the fall to give more time to focus on math and developing overall college-level study skills. All students will meet one-on-one with an academic advisor to determine the best schedule that also incorporates any incoming credit.

Two Science Courses	One Science Course
GNEG 1111 Introduction to Engineering I	GNEG 1111 Introduction to Engineering I
MATH 2554C Calculus I	MATH 2554C Calculus I
PHYS 2054 University Physics I	PHYS 2054 University Physics I OR CHEM 1103 University Chemistry I
CHEM 1103 University Chemistry I	State Minimum Core Elective (3 hours)
ENGL 1013 Composition I	ENGL 1013 Composition I
15 hours	14-15 hours

MATH 2554C CALCULUS I

Students enrolled in MATH 2554C Calculus I will choose both a lecture and a corresponding drill section. The lecture section will meet on Mondays, Wednesdays, and Fridays in a large lecture and will be taught by a professor. Your drill section will meet on Tuesdays and Thursdays in a small lecture, taught by a graduate student. The drill section is more conducive to one-on-one student interaction. Drill attendance is required.

MATH 2445 CALCULUS I WITH REVIEW

Students may alternatively choose MATH 2445 Calculus with Review. This class is designed for students who need to review College Algebra and Precalculus skills while mastering Calculus I concepts. This course consists of 75 minute lectures Monday through Friday in a small classroom. Students who pass MATH 2445 with a C or better will continue on to MATH 2564C Calculus II in the Spring semester.

STUDENTS WITH CALCULUS CREDIT

Students who have or anticipate AP, IB, or transfer credit for Calculus I or higher will discuss their fall math course with an advisor.

Course Scheduling for Precalculus

Students who begin in Precalculus have one additional semester of math. We recommend students attempt the math placement test to improve their math preparedness and possibly qualify for Calculus I. (When prompted by the math placement test software, students should select the Calculus module.) For more information on the Math Placement Test, visit mathplacement.uark.edu

Students are encouraged to take Calculus II the summer before their second year. Students who have not completed Calculus II prior to their second year may delay starting discipline-specific courses.

The fall semester schedules below represent two possible alternatives. All students will meet one-on-one with an academic advisor to determine the best schedule that also incorporates any incoming credit.

Two Science Courses	One Science Courses
GNEG 1111 Introduction to Engineering I	GNEG 1111 Introduction to Engineering II
MATH 1284C Precalculus	MATH 1284C Precalculus
CHEM 1103 University Chemistry I	CHEM 1103 University Chemistry I
Science Elective with Lab (4 hours)	State Minimum Core Elective (3 hours)
ENGL 1013 Composition I	ENGL 1013 Composition I
15 hours	14 hours

MATH 1514 CALCULUS WITH ALGEBRA AND TRIGONOMETRY I

A new course with limited seating will be offered this fall that provides an alternative path through Calculus I for students who start in Precalculus. This is a two-semester commitment where students must also take MATH 2514 Calculus with Algebra and Trigonometry II in the spring semester to receive Calculus I credit. The courses integrate Calculus I with Precalculus topics on an as-needed basis.

Course Scheduling for College Algebra

Students who begin in College Algebra have two additional semesters of math. We recommend students attempt the math placement test to improve their math preparedness and possibly qualify for Precalculus or Calculus I. (When prompted by the math placement test software, students should select the Calculus module.) For more information on the Math Placement Test, visit mathplacement.uark.edu

Students are encouraged to take Calculus I the summer before their second year. Students who have not completed Calculus II prior to their second year may delay starting discipline-specific courses.

The fall semester schedules below represent two possible alternatives. All students will meet one-on-one with an academic advisor to determine the best schedule that also incorporates any incoming credit.

One Science	No Science
GNEG 1201 Success in Engineering Study	GNEG 1201 Success in Engineering Study
MATH 1203 College Algebra ¹	MATH 1203 College Algebra ¹
Science Elective with lab (4 hours)	State Minimum Core Elective (3 hours)
State Minimum Core Elective (3 hours)	State Minimum Core Elective (3 hours)
ENGL 1013 Composition I	ENGL 1013 Composition I
14 – 16 hours¹	13-15 hours¹

¹Some students may be required to also take MATH 0001L or MATH 0002L which adds 1-2 more hours

All students will enroll in MATH 1203 College Algebra. ACT math, SAT math, or ALEKS math placement score will determine if students must enroll in an additional math lab. The lab requirement also determines the number of class days per week. See page 13 for the requirements.

- No Lab required - Attend lecture 3 days a week
- MATH 0001L required - Attend lecture 4 days a week
- MATH 0002L required - Attend lecture 5 days a week

Temporary Math Override Process

Some students may qualify for a temporary override into a higher math class and possibly other courses than indicated by ACT, SAT or math placement scores. During one-on-one advising, the FEP academic advisor will submit the temporary override for qualified students. Temporary overrides are only granted for:

1. Pending AP credit from Calculus AB, Calculus BC, or IB Calculus exams.
2. Pending transcripts from another institution with college credit for a prerequisite.
3. Pending and verified higher ACT or SAT math scores that have not been sent to UofA

Students who are granted a temporary override consent to an agreement to have the pre-requisites posted to their student account by Wednesday, August 12.

- Students will receive an email to their UARK email address in July reminding them of the deadline.
- Students will be administratively dropped from classes associated with the override if pre-requisites are not on file by the Wednesday, August 12 deadline.
- Email communication about overrides will be sent to the students UARK email address.

For overrides based on AP or IB credit:

- Students need to confirm with College Board and IB that test scores are being sent to the University of Arkansas.
- In July, students need to confirm that overrides based on 2020 test scores meet the requirements for the math override. See page 10-11 for minimum scores needed.

For overrides based on college credit:

- Students should confirm that they have paid to send transcripts from the college or university where credit has been earned. Information on sending transcripts can be found on the Registrar's website registrar.uark.edu.
- It is NOT the responsibility of the high school to send transcripts for students who received college credit through dual enrollment.

Confirming that test scores or transcripts have been received:

- Students can view their posted transfer credit in UAConnect. From Student Home page, click on Academic Records tile, then click Transfer Credit to see what credits have been received and posted. In the same tile, click on Other Academics then Academic Test Summary to see ACT, SAT, AP, CLEP, IB and ALEKS test scores.
- For students who meet the requirements and transcripts or test scores have been received by the UofA by the deadline, no further action is needed.

For overrides where the final requirements are not met:

- Students will receive an email on Wednesday, August 12 notifying them that they will be administratively dropped from any classes they are enrolled in but not eligible for.
- Students should see pages 12-15 for fall schedules based on math they will now qualify for.
- Students who qualify for a math class lower than Calculus I are encouraged to take the free online math placement test. mathplacement.uark.edu
- Classes begin on Monday, August 24 and the final day to add a full semester classes is Friday, August 28.

Questions about overrides or class schedule:

Students should contact FEP by phone 479-575-4540 or send an email from UARK email to fep@uark.edu

UAConnect and Schedule Planner Guide

UAConnect and Schedule Planner Guide

For more assistance and instructions with UAConnect and Schedule Planner, go to help-uaconnect.uark.edu. Then go to Knowledge Centers > Student.

1. Log on to UAConnect uaconnect.uark.edu using your university login and password
 - Complete RazAlert info if necessary
2. From your Student Homepage, click on the **Manage Classes** tile and then **Schedule Planner** on the left side of the screen
3. Click the **Click Here** button to open Schedule Planner
 - If a new window or tab does not open, you may need to “Temporarily allow pop-ups”
4. Select **Fall 2020** for the **Term** and click **Save and Continue** button
5. Select **Select All Campuses** for the **Select Campus** and click **Save and Continue** button
6. **Uncheck Intercession** for the **Select Session** and click **Save and Continue** button
7. Click the **Add Course** button in the **Courses** section
8. Add courses by choosing the subject and course from the drop down menus. Click **Add Course** button to add the individual course.
9. Once you have added all courses including required labs, check the first checkbox in the **Courses** section.
 - See section below about courses currently on your schedule.
10. Click **Generate Schedules** button in the **Schedules** section near the bottom of the screen
11. **View** possible schedules (See section on Refining your schedule search)
12. When you find the schedule you want, click the **Send to Shopping Cart** button. Select Undergraduate for Career, then click Send to Shopping Cart button.
13. Click back on the original browser tab that says **Start Scheduler**. Then click the button that says **Course Enrollment**.
14. On the next page, you will click the **Import Cart** button to import the classes individually from Schedule Planner. You will have to click the **Next** button to accept each class.
15. Once you have accepted each class, you will be back to the page for Adding Classes. You will see those classes in the middle section labeled **Fall 2020 Shopping Cart**. Click the **Proceed to Step 2 of 3** button to add those classes.
 - If you need to change your math placement (ex. From PreCalculus to Calculus I) then you will need to **SWAP** your math classes first. See Swap instructions.
16. On the next page it will confirm all the classes in your shopping cart. Click the **Finish Enrolling** button.
 - If you get green checkmarks for each class you are done.
 - If you get any red X's, contact the FEP office for assistance.

Any classes currently on your schedule are listed in the “Current Fall 2020 Schedule” area.

To use the section of a course currently on your schedule, make sure the box is checked for the course in this area. To look at other section options, uncheck the box in this area for the course and use the Add Course functionality in steps 7 and 8 above.

Refining your schedule search (too many options)

1. Add **Breaks** using the menu on the right of the screen
 - Use this for required practices or meetings
 - Use it to adjust times you wish to not have class (if you have options). Note that CHEM 1103 and PHYS 2054 have required class time on Tuesday and Thursday evening for tests, respectively. Do not add a break during these evenings if you intend to enroll in these courses.
2. Choose specific sections for one or more courses using the **Options** links in the **Courses** section.

Swapping a Class in UAConnect

1. From the **Manage Classes** tile, click the **Enroll** link on the left. Then click the **SWAP** tab at the top of the page.
2. If more than one term is open for enrollment, you will have to select the **Fall 2020** term and click the **Continue** button.
3. Under the **Swap This Class** section, click the drop-down arrow to select the class you wish to drop from your current schedule.
4. Under the **With This Class** section, click the drop-down arrow next to **Select from Shopping Cart** to select the class from your shopping cart. Then click **Select** button.
5. The next screen lists both classes for you to confirm your swap. Click the **Finish Swapping** button.
 - If you get a green checkmark on the next screen, your swap worked. If you get a red X, then the swap did not happen. Possible reasons are class is closed, class conflict, or prerequisites are not met. If you need help, contact the FEP office for assistance.
 - If you need to continue adding classes, then click the **Add** link at the top of the page.

Editing Drill or Lab Times in UAConnect

If you want to keep the lecture time but change the drill time for your math class or lab time for your physics class, you can use the **EDIT** function. From the **Enroll** page, click the **EDIT** tab at the top of the page. You will be prompted to select a drill or lab associated with your currently schedule lecture.

Dropping a Class in UAConnect (Use SWAP when possible)

1. From the **Enroll** page, click the **Drop** tab at the top of the page
2. If more than one term is open for enrollment, you will have to select the **Fall 2020** term and click the **Continue** button.
3. Select the check box of each class you wish to drop.
4. Click the **Drop Selected Classes** button to remove class(es) from your schedule.
5. The next page will show the status of this process.
 - If you get a green checkmark on the next screen your drop worked.
 - If you get a red X, then the drop did not happen. The most common reason is the class is a co-requisite with another class on your schedule. You may need to do a **SWAP** instead or drop the co-requisites. If you need help, contact the FEP office for assistance.

After meeting one-on-one with an advisor and building their schedule, students should not change their schedule unless their math placement changes based on test scores or transfer credit. Sections of classes will be filling throughout the summer, which makes changes more complicated.

Most students will enroll in 14-16 hours for the fall semester. Students are responsible for knowing whether they have a scholarship that has specific semester or year requirements for credit hours or GPA. If there are specific semester requirements, students must be enrolled in the correct number of credit hours by the 11th day of classes (Tuesday, September 8). Students should share their scholarship requirements with their academic advisor during orientation, and again during fall advising, to ensure they are advised for the correct number of credit hours.

Determining Credit Hours for a Course

- The last digit of a course number is the number of hours a course is worth. Example, MATH 2554C is worth 4 credit hours.
- Credit hours do not always equal hours spent in class or time required to study for the class.

PHYS 2054 University Physics I and PHYS 2074 University Physics II

Both PHYS 2054 and PHYS 2074 are worth 4 credit hours each. The credit hours include the lecture, lab and test time found on the schedule.

- PHYS 2054 meets for 50 minutes 3 days a week for lecture. PHYS 2074 meets 2 days a week for lecture.
- Lab for both courses meets twice a week for 1 hour and 50 minutes each day.
- Tests are given on Thursday nights from 7:30-10:30pm. Students only attend on Thursday nights for weeks when tests are given.

CHEM 1103 University Chemistry I

CHEM 1103 is worth 3 credit hours and is required for all engineering majors.

Engineering students are NOT required to take the lab (CHEM 1101L).

- Tests are given on Tuesday nights from 6:30-8:00pm. Students only attend on Tuesday nights for weeks when tests are given.
- Students will have CHEM 1103 D001 on their schedule. During the first week of classes, students will sign up for required Supplemental Instruction (SI) meetings for chemistry. These are weekly study sessions for historically challenging courses. More information can be found on Student Success website success.uark.edu.

- **If you registered for College Algebra or Precalculus today, we strongly encourage you to take the Math Placement Test to increase your math preparedness and possibly your starting math class for the fall.**
- **Wednesday, August 12:** Deadline for transcripts to be received for students granted a temporary math override
- **Monday, August 24 – Friday, August 28:** Open Academic Advising in FEP main office
- **Thursday, August 27 7:00-8:00 pm:** First Meeting with Peer Mentor

Important Academic Calendar Dates

- **Monday, August 24:** First day of classes
- **Friday, August 28:** Last day to add a full semester class
- **Sunday, August 30:** Last day to drop a full semester class or all classes with 100% fee adjustment (\$45 fee for withdrawing)
- **Friday, September 4:** Last day to drop a full semester class without a "W" on transcript
- **Monday, September 7:** Last day to drop a full semester class or all classes with 75% fee adjustment (\$45 fee for withdrawing)
- **Monday, September 7:** Labor Day, no classes
- **Tuesday, September 8:** 11th day of classes (important date for scholarships with semester hour requirements)
- **Monday, September 14:** Last day to drop a full semester class or all classes with 50% fee adjustment (\$45 fee for withdrawing)

Full semester calendar can be found on the Registrar's website registrar.uark.edu

Continue to check your university email account regularly over the summer for important information from the university and the First-Year Engineering Program.



Visit our website to learn more information about FEP
first-year-engineering.uark.edu



Visit the Computer Store website for technology questions
uofastore.com/computer/tech-guide/



Important Dates

Wednesday, August 12

Deadline for Math Overrides

Monday, August 24

First Day of Classes

Thursday, August 27

First meeting with Peer Mentor

Friday, August 28

Last Day to add a full semester course



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