

2024 Undergraduate Handbook

Department of Industrial and Manufacturing Systems Engineering lowa State University

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For most current information please see your Academic Advisor.

Table of Contents

Welcome	4
Part 1: General Information	5
Prerequisite/Co-Requisite Enforcement	5
Part 2: Required Courses	5
Basic Program Requirements	5
Course Requirements by Catalog	6
Part 3: Electives	6
Management Electives	6
Focus Electives	6
Engineering Topic Electives	6
Social Sciences and Humanities Electives	6
Part 4: Preparing Your Academic Plan	6
Step 1 – Review Important Resources	7
Step 2 – Understand the Student/Advisor Relationship	7
Step 3 – Select a Catalog	8
Step 4 – Develop a Plan	8
Step 5 – Determine Your Electives	8
Tips for the Planning Process	9
Part 5: Registering for Classes	9
Degree Audits	10
Registration Procedure	11
Part 6: Policies & Procedures	11
Auditing a Course	11
Calculating Your GPA	12
Curriculum/Major Changes	12
Designated Repeats	12
Dropping a Class	12
English Proficiency	13
Independent Study (I E 490)	13
Minimum GPAs	13
Minors	1.4

Pass/Not Pass	14
Schedule Changes	14
Academic Probation Policy	15
Academic Standing	15
Transfer Credits	15
Prior Approval	16
Transfer Credit Evaluation	16
Policies	16
Meeting Degree Requirement	17
Validation of Enrollment	17
Part 7: Work Experiences	17
Co-ops, Internships, & Summer Work	17
Engineering Career Services	17
Part 8: Graduation Information	18
General Requirements	18
32-Credit Rules	18
Part 9: More Resources	18
Academic Services	18
LEAD Program	19
Computer Help	19
Honors Program	19
IDEAL Learning Community	19
Scholarships	20
Student Organizations	20
Study/Work Abroad Opportunities	20
Part 10: Where To Find Us	21
Contact Information	21
TA Offices	21

Welcome

Dear Industrial Engineering Undergraduate,

The Industrial and Manufacturing Systems Engineering (IMSE) Department welcomes you to Iowa State University and the College of Engineering. The College of Engineering has offered a degree in Industrial Engineering since 1946 and continues to provide a program that is based on the fundamentals of engineering science as well as the latest and most innovative technology available.

We are pleased to have you as a student in our department and thank you for joining the IMSE family.

This Student Handbook is a valuable resource for you to learn about the IMSE department, curriculum and policies. However, at any time you have a question or concern about your undergraduate student, please, reach out to your Academic Advisor.

Sincerely,

The Faculty and Staff of the IMSE Department

Part 1: General Information

Undergraduate Study

The undergraduate curriculum in Industrial Engineering leads to the degree Bachelor of Science. The Industrial Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Information specific to ISU IMSE can be found at: https://www.imse.iastate.edu/about-us/accreditation/

Prerequisite/Co-Requisite Enforcement

Prerequisites and co-requisites for Industrial Engineering must be followed per the listing within the ISU University catalog. If a course has a required prerequisite, you must complete the prerequisite with a passing grade prior to taking the course. In some cases, there is a grade requirement attached to the prerequisite. For example, you must earn a grade of C- or better in Math 165 (Calc I) to take Math 166 (Calc II). If a course lists a co-requisite, then you must have credit or concurrent enrollment in the co-requisite course while you are taking the course.

Prerequisites and co-requisites are strictly enforced in the Industrial Engineering Department. If a student does not meet the pre-requisite requirements for a course, the department will inform the student via email that they must either drop the course or provide evidence of equivalent preparation to be reviewed by the department. If a student neither drops the course nor initiates a review of equivalent preparation, the department or instructor may initiate an administrative drop to remove the student from the course.

The Industrial Engineering department does have a process for students to petition for a prerequisite/co-requisite waiver, please talk with your academic advisor. Course prerequisite/co-requisite are listed in the Schedule of Classes as well as in the Courses and Programs section of the ISU Catalog.

Part 2: Required Courses

Basic Program Requirements

The Basic Program is a set of courses that provides a foundation common to all engineering curricula. Students normally enroll in most of the Basic Program courses during their first year. To successfully complete the Basic Program, students must:

- 1. Complete all courses in the Basic Program with a Basic Program grade point average (GPA) of at least 2.00.
- 2. Earn an ISU cumulative GPA of at least 2.00.

A grade of C or better is required for any transfer credit course applied to the Basic Program. Grades from transfer courses will not be used in computing the Basic Program GPA.

Student can refer to the GPA calculator to assist with computing their basic program GPA: https://www.registrar.iastate.edu/students/grades/gpa-calc

Grades earned in courses transferred to lowa State University will not be used in calculating a student's lowa State cumulative grade point average or Basic Program.

Students who have not completed the Basic Program, can enroll in 200-level engineering courses for up to two semesters before completing the Basic Program, if they have completed the course prerequisites.

Course Requirements by Catalog Year: Students may choose to graduate under the catalog requirements in effect at the time of graduation or a catalog for the previous seven years, provided it covers a period of their enrollment.

Current and previous course requirements by Catalog year can be found at:

https://www.imse.iastate.edu/undergraduate-program/advising-and-student-services/curriculum-plans-flowcharts/

Part 3: Elective Courses

Elective courses provide students with an opportunity to personalize their program by selecting courses from management, engineering, and social science and humanities subject areas. Lists of approved courses by area can be found at https://www.imse.iastate.edu/undergraduate-program/advising-and-student-services/ under the More to Explore section.

Elective Course Credit Requirements

Elective Areas	Total Elective Course Credits
Management	3
IE Focus	6
Engineering Topic	6
Social Sciences and Humanities (SSH)	12*

^{*}Six credits in the SSH area must be 200-level or above, and six credits must form a sequence of prerequisite or related courses.

The SSH list contains numerous US Diversity and International Perspectives courses: students must have 3 credits in each category for graduation as a part of the ISU University requirements. It's highly recommended to share your IE SSH Elective lists with the above ISU University Requirements, to prevent your taking extra classes. Please check these courses with your advisor prior to completing the course.

Part 4: Preparing Your Academic Plan

Step 1 – Review Important Information Resources

• Orientation Information

The link below is full of useful information on university policies, procedures, resources, jargon, history, and customs, plus some community information as well.

https://www.iastate.edu/admission-and-aid/new-student-programs/orientation

New Student Programs (515) 294-0801 2630 Memorial Union nsp@iastate.edu

Undergraduate and Graduate Courses and Programs

The ISU course catalog outlines your degree program. It also summarizes course content and prerequisites and co-requisites for courses. Information regarding a variety of policies and procedures is included.

Iowa State University Catalog; available online at: http://catalog.iastate.edu/

Office of the Registrar (515) 294-1840

214 Enrollment Services Center registrar@iastate.edu

Schedule of Classes

The Schedule of Classes provides a list of all current course offerings for the upcoming semester. Also included are an academic calendar, registration instructions, current fees, and other practical information. This document is published each semester and is currently available only on-line.

Available online at: http://classes.iastate.edu/

Office of the Registrar (515) 294-1840

214 Enrollment Services Center registrar@iastate.edu

• Student Life Policies

These are the policies and procedures that all ISU students are expected to know, understand, and follow while at lowa State University. They include policies about student conduct, academics, and residence hall policies.

Available online at: http://www.policy.iastate.edu/policy/student-life.

Dean of Students Office (515) 294-1020

1010 Student Services Building or email: dso@iastate.edu

Graduation plans

Graduation plans and flowcharts for active catalogs can be found at:

https://www.imse.iastate.edu/undergraduate-program/advising-and-student-services/curriculum-plans-flowcharts/

Step 2 – Understand the Student/Advisor Relationship

In the relationship between a student and an academic advisor, each party has certain responsibilities.

The Advisor's Role

The advisor's role is to assist you in reaching your goal of successfully completing your degree program. While it is ultimately your responsibility to make sure you are meeting all graduation requirements, frequent contact with your advisor will help you in this process.

Your advisor is available by appointment to help address concerns and questions that arise during your degree program. For example, an advisor can explain university policies and procedures or, if there are options, give you objective and practical advice to help you decide on a course of action.

1. If you have questions or are experiencing academic problems, please don't wait for your advisor to contact you. Call, email, or schedule an appointment in AccessPlus with Navigate Student right away. Instructions can be found here: https://www.provost.iastate.edu/academic-programs/eab

The Student's Role

It is your responsibility to know about all the policies and procedures that apply to you as a student. You are expected to consult with your advisor frequently and come prepared to your advising appointments. Above all, ignore rumors and avoid advice from other students – get accurate information from your advisor instead.

Here are some suggestions of what you can do to stay on top of your academic situation:

- Keep informed about all important dates and deadlines, such as the last day to drop a course, start dates for registration, and the deadline for paying fees.
- Each semester, review your degree audit and immediately resolve any questions you have about it.
- Plan your program of study, i.e., which semesters you will take the required courses, electives, study abroad experience (if you choose one), and co-op/intern experience (if you choose one).
- Know which catalog you are on and which degree requirements you must meet.
- Review the graduation requirements specific to Industrial Engineering, and make sure that your program of study satisfies all of them.

Caution: Your lack of awareness concerning the policies, procedures, and expectations of the College of Engineering and the university can result in a delayed graduation. Please be diligent in checking your Degree Audit on AccessPlus and reviewing this handbook to ensure you are making satisfactory degree progress.

Step 3 – Select a Catalog

A student may choose to graduate under the catalog in effect at the time of graduation or a catalog for the previous seven years, provided it covers a period of his or her enrollment. Full requirements of the chosen catalog must be met except that adjustments will be made in instances where courses are no longer available or where programs have been changed.

Step 4 - Develop a Plan

As early as possible, develop an academic plan, semester by semester, through graduation. The plan includes all the courses required to receive a degree and should follow a similar format to the "Suggested Course Sequence Guide" in the ISU catalog.

Step 5 – Determine Your Electives

Your degree program contains a certain number of credits designated as electives. This means that you have a choice among courses within a given subject matter designation. It is your responsibility to check on the prerequisites for the courses you are interested in, making sure you are eligible and prepared to take them. Also, check the terms in which the courses are usually offered so that you can more easily fit them into your graduation plan.

Tips for the Planning Process

As you work on your academic plan, consider the following issues:

- Be aware that many IE courses have accompanying labs, and the number of credits awarded for a course may not reflect the amount of time you are actually in class.
- Strike a balance between the so-called "light" and "heavy" courses. Deferring all "heavy" courses to your senior year is a strategy that could backfire.
- Know electives are offered and whether you have the prerequisites for them.
- Decide whether you will participate in a co-op or internship program so you can plan when to take the courses you might miss on campus that semester.
- Decide whether you will study abroad so that you and your advisor can plan what courses you will take at the
 other institution and how they will affect the rest of your plan.
- If you have a very low GPA, consider taking lighter course loads (no more than 12 credits) until you can build up your average.
- Few IE courses are offered during summer sessions, so it would be better not to rely on summer classes as you plan your program. If you want to take a class in the summer, check the course schedule for that term and consult with your advisor.
- Consider repeating a course and using "designated repeat credits" to your advantage. You are allowed to repeat
 up to 18 credits where the most current grade is used in your cumulative GPA instead of the previous grade. Talk
 with your advisor about judiciously using designated repeats.
- Co-op/internship participation, course drops, and repeats often require additional semesters.

Part 5: Registering for Classes

Degree Audits

Students are able to view their individualized degree audit through AccessPlus at any time during the semester. The degree audit is an essential tool to have when developing your academic plan.

Because of periodic changes in offerings, the courses you have taken may not conform exactly to those required on your degree audit. If there are differences, ask your advisor to fill out a form called Degree Audit Exceptions Form, requesting that the college office make minor adjustments to your degree audit.

YOU are ultimately responsible for your academic plan. It would be devastating to find out in your last semester that you do not have enough credits in the right areas to graduate. **Therefore, you must monitor your degree audit carefully.** Each semester, make sure that the credits you have taken and the credits remaining to be taken add up to the subtotal on the degree audit and that courses appear in the correct areas.

The degree audit is divided into the following seven areas of study:

- 1. International Perspectives
- 2. U.S. Diversity
- 3. Communication Proficiency and Remaining Communication Courses
- 4. Foreign Language
- 5. Social Sciences and Humanities
- 6. Basic Program

- 7. Math and Physical Science
- 8. Industrial Engineering Core
- 9. Other Remaining Courses
 - 6A. Other General Engineering Courses
 - 6B. Focus Electives
 - 6C. Management Electives
 - 6D. Engineering Topic Electives
- 10. Required Seminar
- 11. Courses Not Applied to Degree Program

DARS (Degree Audit Reporting System)

The degree audit system called DARS (Degree Audit Reporting System), produces individualized reports that reflect a student's academic progress toward a specified degree. It will compare the student's course work, both here and transfer work, with the requirements of the Industrial Engineering academic degree program and prepares a report, or audit, which details the student's progress toward meeting those requirements.

What's on a degree audit?

- Courses you've completed, with the grade and term taken
- Courses you're currently enrolled in (CUR) or registered for in future terms (REG)
- Courses and requirements not yet completed
- Updates to other important information (number of drops, probation status, etc.)

Includes minors, double majors, & honors

What does a DARS audit look like?

Divided into categories:

- Student information
- University requirements
- College requirements
- Department requirements
- "Courses Not Applied"
- Common sections
- "Legend" & disclaimer

Terms to Remember

Requirement

- OK
- NO
- IN-PROGRESS

Sub-requirement (subgroup)

+ means Completed

- means Incomplete

Use the Legend to decipher other markings.

Messages Examples:

- Your application for graduation has been received
- 2.00 ISU cum GPA required for Basic Program completion
- Engl 150/250 min grade C, Minimum GPA 2.0
- 2.00 Industrial Engineering Core GPA

Check your degree audits carefully every semester

ALWAYS CONSULT YOUR ADVISOR!

Registration Procedure

Here's what to do:

- 1. Go into AccessPlus; review your registration start date and time. It will be listed under Student Information.
- 2. Check your degree audit in AccessPlus.
- 3. Make an advising appointment with your Academic Advisor in AccessPlus with Navigate Student. Instructions can be found here: http://www.imse.iastate.edu/undergraduate-program/advising/schedule-an-appointment/
- 4. Make sure that you have completed a Graduation Plan.
- 5. Check out the registration information on the IMSE academic advising and student services page, under resources: http://www.imse.iastate.edu/undergraduate-program/advising/
- 6. Once you have your RAN, you will register yourself through AccessPlus on your start date.

Certain groups of students need to meet with the academic advisor due to special circumstances, namely,

- 1. New students in the department (new freshmen, transfers, major changes)
- 2. Students on academic warning or probation
- 3. Graduating seniors
- 4. Students planning co-ops or internships
- 5. Students planning to study abroad

Part 6: Policies & Procedures

Auditing a Course

Auditing means you are enrolling in a course without receiving a grade or credit for that course. An audit counts for credit in terms of ISU billing, but it does not count towards maintaining full-time status. This option generally should be used only to take a course for which you have some interest, but that has no impact on your degree plan, or you are totally unfamiliar with the subject area and want a "trial run."

Audits do not count towards your degree program, and the course can be taken again for credit. Audited courses do not appear on your permanent record, unless you make a special request through your academic advisor and can demonstrate active participation in the course. Audits do give you the same rights and privileges of any other student taking the course.

Audits cannot be added through <u>AccessPlus</u>: You must have the instructor's permission. Audits must be declared within the first 10 days of class. For courses with permission requirements and/or after the first week of classes, a Schedule Change form will be needed. The Schedule Change form can be found in AccessPlus, under the Student tab, within Registrar Forms located in the menu on the left column.

If you change a class from credit to audit, you are officially dropping the class and adding it as an audit.

Calculating Your GPA

Students are encouraged to use the GPA Calculator here: https://www.registrar.iastate.edu/students/grades/gpa-calc

Curriculum/Major Changes

Before making a change of curriculum or major, please take the time to investigate your proposed area of study by visiting with an advisor in the department of interest or with other students currently enrolled in that curriculum.

A <u>curriculum change</u> implies that you are staying within the College of Engineering but are selecting a different discipline. For example, if you are presently an I E student and want to change your curriculum to Chemical Engineering (CH E), you would go through the sequence of steps outlined below.

1. Begin with your current advisor in Industrial Engineering. The IE advisor will process a major change form to the College of Engineering and they will forward your request to the new department.

If you are leaving the College of Engineering for a department in another college, then you are making a <u>major change</u>. In that case, you will need to follow:

- 1. Begin with your current advisor in Industrial Engineering. The IE advisor will process a major change form to the College of Engineering.
- 2. The College of Engineering Classification office, will process the major change and send to your new college.
- 3. You will need to follow-up with your new major to schedule a time with your academic advisor.

If you are on Academic Probation and want to change to another college, may transfer to another program in the university before period 3 begins (before the last day to drop a course.) For students on Academic Probation, transfer during period 3 (after the last day to drop a course) can only occur under exceptional circumstances and with the approval of the chair of the new program and the dean of the new college.

Designated Repeats

The most recent grade for a course a student repeats will be used to compute the student's cumulative grade point average rather than the previous grade(s), up to a limit of 18 credits. (This could result in a lowered grade point average if the second grade is lower than the first, or even loss of credit if the grade is lowered to an F). All grades will remain on the student's record.

Students may repeat any course for which an F grade, an NP grade, or any passing grade was received. A course initially taken for a grade must be repeated as a graded course. A course initially taken as Pass/Not Pass may be repeated as a graded or Pass/Not Pass course.

Beyond the 18-credit limit of repeats, all grades will be included in computing the cumulative grade point average. Please refer to items #1 and #7 above regarding how to calculate the grade point average.

Courses should be repeated as soon as possible, preferably within three semesters in residence, because of changes that occur with course updating, change in course number, or revision in the number of credits.

Approval to repeat a course in which the course number or number of credits has changed must be noted on a Designation of Repeated Course form, which can be obtained from your academic advisor. This form must be signed by the head of the department offering the course and by the student's advisor, and then taken to the Office of the Registrar. Deadlines for filing repeated course forms for full-semester and half-semester courses are published in the university calendar.

Transfer students may repeat courses at Iowa State University for which a D or F was received at another institution. They must process a Designated Repeat Form. Such repeated credits will count toward the 18-credit request limit. A student who has earned an F at Iowa State University may repeat the course at another institution and the credits earned may be applied toward graduation at Iowa State, but the grade earned will not be used in computing a cumulative grade point average.

Repeated courses may affect any federal financial aid. See the Financial Aid for further information.

Dropping a Class

Whenever you think about dropping a course, carefully weigh the consequences. Dropping a single course can significantly change the remainder of your academic plan and effect your financial aid. Prior to dropping a class it's highly encouraged to talk with the professor, your academic advisor and the financial aid office. The following webpage will provide further information on the process to change your schedule:

https://www.registrar.iastate.edu/students/registration/add-drop--schedule-changes-

Note: Courses changed to "audit" status during a semester count as drops.

English Proficiency

The department requires a C grade (2.0) or better in both ENGL 150 and 250.

Independent Study (I E 490)

Students who are in good standing may earn credit under a 490 number by studying independently under the direction of an IMSE professor. Credits taken under the 490 number must have an Independent Study Proposal form approved before you register for the course. This proposal must carry the signed approval of the faculty member under whom the work will be done, your advisor, and the IMSE Director of Undergraduate Education. After the proposal is approved, a copy will be returned to you and another will be filed with the advisor.

A maximum of three credits of I E 490 may be counted toward the degree, although you may request more if you can demonstrate extenuating circumstances (see your advisor about this process). I E 490 courses are usually graded as Satisfactory/Fail.

Minimum GPAs

To graduate, you need a 2.00 grade point average in Industrial Engineering core courses and a cumulative GPA of at least 2.00.

Minors

If you are interested in studying another area of interest, you might consider declaring a minor in that area. In the College of Engineering, the minors available are Biomedical engineering, Cyber Security Engineering, Cyber-Physical Systems, Energy Systems, Engineering Sales, Entrepreneurship, Leadership Studies, Nondestructive Evaluation, and Sustainability. However, engineering students may also take minors in other departments that offer minors.

A minor consists of at least 15 credits. Nine credits must be used only in the minor, but the remaining credits may be counted toward requirements in both the minor and the major, if possible.

Check with the minor department and the Catalog about specific requirements for obtaining the minor.

Pass/Not-Pass

Pass/Not-Pass (not to be confused with Satisfactory/Fail) means you are enrolled in a course for credit, but are being graded on a Pass/Not-Pass basis instead of a normal letter grade. This option should be used only to take a course for which you have some interest, but do not intend on using for your degree program. Students may choose to attempt a maximum of 9 semester credit hours on a Pass-Not Pass basis, meaning that only a P or NP will be recorded as their final grade in the course. (Note: spring 2020 student were allowed count Pass/Not-Pass classes towards they degree programs due to COVID)

You should consult with your academic advisor about taking a course Pass/Not-Pass. Courses can be changed to Pass/Not-Pass basis until the drop deadline (see the https://www.registrar.iastate.edu/calendar/), and you need only your academic advisor's approval through a Schedule Change Form in AccessPlus.

Your instructor will not know you are taking the course Pass/Not-Pass; they will still consider you a student taking the course for credit.

Once final grades are submitted, the registrar's office will change your letter grade to P or NP. A D- or higher grade is required to receive a P.

Pass/Not-Pass courses do appear on your permanent record.

Schedule Changes

The procedure for adding or dropping courses depends on when you want to make the change. Basically, there are four stages where the deadlines, signature requirements, and fee vary:

Before the first day of classes

Use AccessPlus to add or drop a class. These changes are not shown on your permanent record. If you want to cancel your registration completely, you must do so before classes begin. Otherwise, you are assessed tuition and fees, which accumulate until you notify the Registrar's Office about the cancellation.

Period 1 (during the first five days of the semester)

Use AccessPlus to add or drop a class. The schedule changes you make during the first five days of classes do not count against your permanent record. In general, no additional signatures are needed. However, if a class is closed or if permission is required to add the class, you will need the instructor's/department signature on the Schedule Change Form processed in AccessPlus.

Period 2 (after the fifth day of classes)

It is important for students to make well-informed decisions when adjusting their course schedules, particularly because such decisions often have financial and/or academic implications. To best support students' decision-making process, period 2 schedule changes should be made in collaboration with their advisor and instructor as appropriate and necessary.

For students who wish to add or change sections of a course, or adjust course credit hours, the signatures grant permission for a student to make the requested change.

The decision to drop a course rests with the student; as such, the advisor's signature is not one of permission, but rather to indicate a conversation about the implications of dropping has occurred. Course drops after period 1 appear on the permanent academic record. Section changes are only processed as a section change and does not use a drop.

Period 3 (after the drop deadline)

The last day to drop a class will always be noted in the Academic Calendar. After the drop deadline has passed, a drop or add will not be approved except for unusual circumstances beyond the student's control. Such changes MUST be supported by the advisor and approved by the College of Engineering Academic Standards Committee. Please see your advisor.

Academic Probation Policy

Students are placed on academic probation status as a warning that their academic progress is not satisfactory and that they should take steps to improve their academic performance to avoid dismissal from the university.

Students who are placed on academic probation should immediately seek assistance in academic improvement from such sources as academic advisors, instructors, the Student Counseling Service, and the Academic Success Center. Additionally, students on academic probation and warning are required to meet with their advisor and to complete the Academic Intervention Self-Assessment form, which can be accessed through Access Plus. For more information, see https://asc.dso.iastate.edu/academic-intervention-self-assessment-students.

Academic Standing

Continued enrollment at Iowa State University depends upon an undergraduate student maintaining satisfactory academic progress toward attaining a degree. To help students maintain progress, Iowa State has implemented standards to identify students who may be struggling so that they can benefit from advising and other academic resources. Academic standing at Iowa State University is dependent upon the total number of credits a student has attempted or earned, the student's semester grade point average (GPA), the student's cumulative ISU GPA, and the student's transfer GPA (if below 2.00.)

Details on academic standing can be found at:

https://www.provost.iastate.edu/academic-programs/policies/academic-standing

http://www.engineering.iastate.edu/student-services/academic-standards/

Transfer Credits

If you have been admitted to lowa State University from another institution or have taken classes at another school during the summer, it is likely that you have transfer credits. To have those credits become part of your academic record

at Iowa State, ask the Registrar's Office at the other institution to send an official transcript to Iowa State. Make sure that you have the other school send your transcripts to Iowa State so that your classes can be evaluated in a timely manner. Credit cannot be awarded until a final grade from the other institution is submitted.

Prior Approval

Before taking a course for transfer credit, you will need to have the course evaluated by using TRANSIT: https://transit.iastate.edu/.

It is your responsibility to make sure the course you want to take can be designated as an acceptable substitute for a specific course at Iowa State. Likewise, it is your responsibility to ensure that any off-campus courses can be applied to your IE degree. See your advisor for help.

Transfer Credit Evaluation

When you have transfer credits from another institution, you receive a copy of the Transfer Credit Evaluation from the Office of Admissions. The Transfer Credit Evaluation lists how the courses you have taken at other schools transfer to Iowa State. It also lists the titles for each course, their respective credits, and the grade you earned in each one.

Courses will appear with first a department code, then a number that stands for the course level, next the letter T for transfer, followed by the number of courses (i.e., Engr 1T22) are courses for which there is no direct equivalent at Iowa State. If you think a course sounds similar to one at Iowa State, you can request an evaluation by the appropriate department. You will need a course description from the catalog, a syllabus, and a Request for Department Review of a Transfer Course. To begin this process, see your advisor.

Policies

See your advisor about applying transferred credits toward your degree requirements. When requesting that transferred credits be applied to your degree, remember these policies:

- 1. Transfer credit with a grade less than a C will not be approved for application to the program. The only exception are grades from international institutions that only grade satisfactory/fail.
- 2. Courses taken at other institutions may transfer even if they are offered for fewer credits than the comparable course at lowa State. However, each such course must be listed by the Registrar's Office as an acceptable course for the specific requirement. For example, Physics 150 taken at Purdue for four credits might be acceptable if lowa State considers that course to be equivalent to Physics 231 and Physics 231L for five credits. In that case, though, additional course work (in the same content area) would be required to make up the credit shortage before you graduate. In the case of credit deficiency in mathematics and basic sciences, appropriate engineering credits may be used to make up for the credit shortage. The total number of engineering credits used for such cases is limited to 2.
- 3. No more than 65 semester or 97 quarter credits earned at two-year colleges can be applied to a bachelor's degree from Iowa State University. While there is no limit to the number of credits that may be transferred from a four-year institution, the last 32 semester credits before receiving a degree from Iowa State University must be completed at Iowa State University.
- 4. In order to graduate, you must have earned at least 32 credits in residence at Iowa State University, and your final 32 credits must be taken at Iowa State. However, 6 of the last 32 credits may be transferred to Iowa State, with prior written permission of the IMSE Department. See your advisor regarding this written permission.

5. A transcript of your transfer work must be received by Iowa State by midterm of the term you plan to graduate.

Note: It has been IMSE Department policy, for a transfer student, to accept Stat 305 already taken prior to being an IE to meet the Stat 231 requirement, provided that the 1 credit deficiency is appropriately addressed.

Meeting Degree Requirements

When there is doubt as to whether transfer credit applies to the required curriculum, you may file a petition with the IMSE Curriculum, Assessment, and Standards Committee (CASCOMM). See your advisor to begin this process by submitting a Curriculum Adjustment Request.

Transferred courses that are not applied towards your degree appear in the "Courses Not Applied" section at the bottom of your degree audit, along with any other non-applicable courses that you have completed. If you think that a transferred course should be applied to your degree but has not been, contact your advisor.

Validation of Enrollment

Your enrollment in a class must be validated by attendance at one of the first two class meetings following registration in the course. If enrollment is not validated, you may be asked to drop the course, and you must process the drop yourself. If you decide not to attend a course, it is your responsibility to drop the course. If you do not, you could earn a grade of "F" because the instructor will not automatically drop you from the class.

Part 7: Work Experiences

Co-ops, Internships, & Summer Work

Engineering-related work experience gives you the unique opportunity of earning money while gaining valuable engineering experience.

For these types of work experience, you are still considered a full-time student at Iowa State but are not assessed tuition and fees while you are away. This allows you to maintain most of the benefits of being enrolled in college (such as parental health insurance coverage and deferred loan repayment). You maintain your full-time status by filling out paperwork with Engineering Career Services and meeting with your advisor to discuss registration for the appropriate IE course. These are R-credit courses that are graded on a Satisfactory/Fail basis and do not affect your tuition.

Please note there is a mandatory evaluation process at the end of the co-op and internship experiences.

Engineering Career Services

Refer to the ECS website https://www.engineering.iastate.edu/ecs/ for information regarding ISU CyHire, preparing resumes, interviewing for positions, letter writing, assessing and negotiating job offers and other items relating to career opportunities.

Engineering Career Services (515) 294-2540 3200 Marston Hall <u>ecs@iastate.edu</u>

Part 8: Graduation Information

General Requirements

The semester before graduation is the time to resolve problems involving graduation requirements. After you have registered for classes for your final term, check your degree audit for accuracy and resolve any outstanding degree requirements with your advisor.

An application for graduation should be submitted before the deadlines indicated below in AccessPlus (student tab, graduation, application). Details on this process can be found here:

https://www.graduation.iastate.edu/bachelors/application-for-graduation

- Spring (May) Friday before Thanksgiving break
- Summer (August): Friday before spring break
- Fall (December): Last business day of July

Please contact the Office of the Registrar for final details.

The Graduation Office notifies you via email the second week of classes the term you plan to graduate reviewing important graduation deadlines. You will be notified of your graduation status by email by mid-semester of the term you plan to graduate. Your graduation status can also be viewed in AccessPlus by selecting student tab, graduation, graduation status.

The graduation application is not an application to participate in the commencement ceremony.

Your diploma is mailed to you two or three weeks after graduation. Details can be found here: https://www.graduation.iastate.edu/university-commencement/diplomas

Questions regarding graduation can be sent to the Graduation Office at 210 Enrollment Services Center, phone 515-294-1840 or email graduation@iastate.edu.

32-Credit Rules

lowa State University requires that all undergraduates earn at least 32 credits in residence, and your final 32 credits need to be taken in residence. However, 6 of the last 32 credits may be transferred to lowa State, with prior written permission from the IMSE Department. Credits earned while students participated in an ISU Study Abroad or National Student Exchange program are exempt from this requirement. Your transcript needs to be received at lowa State by midterm of your graduation term.

If you are close to graduation and plan to take any course work at another institution, see your advisor before enrolling.

Part 9: More Resources

Academic Services

lowa State students are eligible to receive a number of services sponsored by the Dean of Students Office (DSO) or the College of Engineering. Services offered by the DSO are designed to help you make the most of your time while earning

your degree at Iowa State University. For academic assistance, tutoring, counseling, or information about the services offered by the DSO, you are encouraged to visit the DSO in 1010 Student Services Building or online at: http://www.dso.iastate.edu/. Contact information: (515)294-1020, dsoudent-services Building or online at:

LEAD Program

The Leadership through Engineering Academic Diversity (LEAD) Program is committed to improving the educational experience and academic success, retention, and graduation of minority engineering students at Iowa State University. Services available to minority students through the LEAD Program include tutoring, peer mentoring, and engineering learning communities. For more information about the LEAD Program, contact the LEAD Program Coordinator in 1300 Marston Hall. Website: http://www.engineering.iastate.edu/lead/

Computer Help

The following is a list of resource offices and websites that will help you find answers to your questions about technology at lowa State.

- IMSE Department contact: Mike Renze, IT System Support Specialist, mdrenze@iastate.edu
- College of Engineering Technology Support: http://it.engineering.iastate.edu/
- IT for Students: http://www.it.iastate.edu/foryou/students/
- University Book Store: http://www.isubookstore.com/home.aspx
- Tech CYte: http://www.techcyte.isubookstore.com/home.aspx

Honors Program

The University Honors Program at Iowa State (http://www.honors.iastate.edu/) promotes an enriched academic environment for students of high ability, regardless of major, who are interested in taking advantage of educational and intellectual opportunities and challenges. These include the pursuit of a broad liberal education, the ability to individualize the student's program of study, access to graduate-level courses, and the opportunity to be involved in research projects.

University Honors Program (515) 294-4371 2130 Jischke Honors Building <u>honors@iastate.edu</u>

The academic advisors in IE will advise IE Honors Program members on their requirements.

IDEAL Learning Community

Learning communities provide an opportunity for students to improve their interactive, problem solving, and study skills. In addition to taking a cluster of courses together, students enjoy other academic, service, and social activities that enrich their learning. Participating students benefit from peer, faculty, and alumni mentoring.

For freshmen and transfer students who are majoring in Industrial Engineering, the learning community is called InDustrial Engineers Are Leaders (IDEAL).

For more information, contact Devna Popejoy-Sheriff <u>devna@iastate.edu</u> phone (515) 294-1603 or John Luckiesh <u>luckiesh@iastate.edu</u>, phone (515) 294-7797.

Scholarships

Many students qualify for scholarships from ISU. Each year the College of Engineering awards about \$1,400,000 in scholarships to engineering students. The generous support of hundreds of individuals and corporations allows us to recognize the academic accomplishments of outstanding, hard-working students.

If you have questions, contact:

Scholarships and Awards Committee (515) 294-8355

Engineering Undergraduate Programs engineeringscholarships@iastate.edu

1300 Marston Hall

Student Organizations

A good way to feel connected on campus is to join a student organization. At Iowa State, there are hundreds to choose from across campus as well as those within the IMSE Department and the College of Engineering.

IMSE Department

Your department has several of student organizations that you can become involved with. For more information, contact your academic advisor.

■ A∏M (Alpha Pi Mu) https://www.stuorg.iastate.edu/site/alphapimu

■ IISE (Institute of Industrial & Systems Engineers) https://www.stuorg.iastate.edu/site/iise

INFORMS (Institute for Operations Research and Management Science) https://www.stuorg.iastate.edu/264

Sales Engineering Club https://www.stuorg.iastate.edu/sec/information

College of Engineering

The College of Engineering sponsors many student organizations: https://www.stuorg.iastate.edu/orgtype/6

Iowa State University

For a complete listing of all campus student clubs and organizations: https://www.sac.iastate.edu/student-organizations/

Study/Work Abroad Opportunities

Studying abroad provides opportunities for students to challenge themselves academically, intellectually, and emotionally. You have the chance to go virtually anywhere in the world. Visit the Study Abroad Center, 281 Parks Library or on-line at http://www.studyabroad.iastate.edu/.

The College of Engineering has an additional resource for students who want to study in countries where programs have been established specifically for engineering students. Contact the Engineering International Programs office, 1300 Marston Hall, or online at: http://www.engineering.iastate.edu/studyabroad/.

Once you select an institution abroad, consult with your advisor about how courses will transfer back to lowa State and therefore what courses are appropriate to take.

For opportunities to work abroad, please contact the Engineering International Programs office in 1300 Marston Hall or Engineering Career Services, 3200 Marston Hall.

Part 10: Where To Find Us

Contact Information

<u>Name</u>	<u>Office</u>	<u>Phone</u>	<u>Email</u>	
Dr. Sarah Ryan	3004 Black	294-6668	smryan@iastate.edu	
Department Chair				
Dr. Matthew Frank	3023 Black	294-0389	mfrank@iastate.edu	
Associate Chair and Director of	f Undergraduate Education			
Dr. Gary Mirka	3025 Black	294-8661	mirka@iastate.edu	
Director of Graduate Studies				
Dr. Rick Stone	3027 Black	294-3644	rstone@iastate.edu	
Director of Inclusion				
Devna Popejoy-Sheriff	3038 Black	294-1603	devna@iastate.edu	
Student Success and Services Program Coordinator				

All other Faculty and Staff of IMSE can be found on our directory at: https://www.imse.iastate.edu/directory/page/1/

TA Offices

Teaching Assistant offices can be found in 0010 Black Engineering.