## FATE & TRANSPORT OF CHEMICALS IN THE ENVIRONMENT University of South Florida

Prof Cunningham Fall 2024

### **Course Description (from USF Course Inventory)**

Investigates how chemical properties, physical processes, and environmental characteristics all influence the fate and transport of chemicals in natural and engineered systems. Includes theory, practical examples, and laboratory experiment.

### OK, but why would I want to take this class?

Our lives are impacted on a daily basis by the presence of hazardous chemicals in our water, in our air, in our food, or in other compartments of our environment. We even make movies about it! – *A Civil Action, Erin Brockovich*, and *Dark Waters* are all based on real-life events. To understand the risks posed by chemicals in the environment, and (if necessary) to protect the public from harm, first we must understand how chemicals move and react.

#### **Course Objectives**

Throughout this course, we will:

- Derive and apply equations (e.g., Henry's Law) to quantitatively estimate the distribution of chemicals between phases or compartments in environmental systems at equilibrium.
- Derive and apply equations to quantitatively estimate the rate at which chemicals move between phases or compartments in environmental systems not at equilibrium.
- Derive and apply equations to quantitatively estimate the transformation or reaction of chemicals in environmental systems.
- Apply the mass balance equation for the quantitative analysis of environmental systems.
- Apply the idealized/theoretical models of batch, plug-flow, and completely-mixed-flow reactors for the quantitative analysis of environmental systems.
- Derive and apply equations for quantitatively describing the transport of chemicals in environmental systems by the processes of advection, diffusion, and dispersion.
- Conduct a laboratory experiment that (a) demonstrates how contaminants partition between phases or compartments, (b) demonstrates the effort required to produce data reported in tables used throughout the semester, (c) demonstrates the application of spectrophotometry and the Beer-Lambert Law for quantifying concentrations of chemicals in water, and (d) gives students hand-on experience using some common laboratory equipment.

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### **Learning Outcomes (ABET outcomes)**

The work completed by students in this course will help those students to develop:

- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics,
- an ability to communicate effectively with a range of audiences,
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives,
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions, and
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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**Lectures:** Mondays and Wednesdays, 9:30–10:45, in-person, CPR 122

**Credit:** 3 units, letter grade

**Instructor:** Professor J A Cunningham

E-mail: cunning@usf.edu

Voice mail: (813) 974-9540 – voice-mail only, not a live telephone number

Office: ENC (Engineering III) 3215

**Office hours**: The instructor and the teaching assistant (TA) will each hold office hours for

about 1.5–2.5 hrs/wk (thus a total of about 3–5 hrs/wk).

Times will be announced during the first or second week of class.

**Text book:** There is no required text book for the class because I will be providing you with

chapters throughout the semester that I have written. However, there is a "recommended" or "optional" text book that you might find helpful:

Integrated Environmental Modeling: Pollutant Transport, Fate, and Risk in the Environment. A Ramaswami, JB Milford, MJ Small. John Wiley & Sons, Inc.:

Hoboken, NJ. 2005.

**Pre-requisite:** ENV 4001 (Environ. Systems Eng.) <u>or</u> ECH 3023 (Material/Energy Balances)

**E-Mail:** Outside of class, I will use e-mail to disseminate information. This will be done

through the Canvas program so I can reach all students at once. If you use more than one e-mail address, make sure Canvas forwards to your primary e-mail

address.

**Grading**: 22.5% homework, 22.5% midterm exam, 10% laboratory, 45% final exam

Web site: Course documents – including homework assignments – will be posted on

Canvas. Documents posted on Canvas are visible only to students registered in the class. If time permits, I also like to maintain a course web site that is visible

externally, so the rest of the world can see what we are doing:

http://www.eng.usf.edu/~cunning/ENV4053C/Fate&Transport.htm

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### **Course Schedule**

The course schedule below is tentative. It is possible that the actual pace could be a little faster or a little slower than what I have estimated here. We will try to adhere to this schedule, but not to the point of detracting from students' learning the material.

Week #	Dates	Topics Covered	Reading	Assignment
Week 1	August 26 August 28	Course introduction Overview: chemicals in the environment	Chapter 1	
Week 2	September 2 September 4	no class – Labor Day  Review of env. chemistry and units of concentration	Chapter 2	
Week 3	September 9 September 11	Equilibrium partitioning Equilibrium partitioning	Chapters 3 Chapters 4,5	Homework 1
Week 4	September 16 September 18	Equilibrium partitioning Equilibrium partitioning	Chapters 6,7 Chapter 8	Homework 2
Week 5	September 23 September 25	Inter-phase mass transfer Inter-phase mass transfer	Chapters 9,10 Chapters 11,12	Homework 3
Week 6	September 30 October 2	Inter-phase mass transfer Chemical reactions	Chapter 13 Chapter 14	Homework 4
Week 7	October 7 October 9	Chemical reactions Chemical reactions	Chapters 15,16 Chapters 17,18	Homework 5
Week 8	October 14 October 16	catch-up day or ad-hoc topic  Midterm exam, in class		Midterm exam
Week 9	October 21 October 23	Review of mass (and energy) balances Review of mass (and energy) balances	Chapter 19 Chapters 20,21	Homework 6
Week 10	October 28 October 30	Reactor theory Reactor theory	Chapters 22–24 Chapters 25–27	Homework 7
Week 11	November 4 November 6	Transport by advection, diffusion, and dispersion Transport by advection, diffusion, and dispersion	Chapter 28 Chapters 29,30	Homework 8
Week 12	November 11 November 13	no class – Veterans' Day  Lab experiment: preparation	Lab Handouts	
Week 13	November 18 November 20	Lab experiment Lab experiment		Homework 9
Week 14	November 25 November 27	Transport by advection, diffusion, and dispersion catch-up day or ad-hoc topic	Chapter 31	Lab Report
Week 15	December 2 December 4	Tying it all together Tying it all together	Chapter 32 t.b.d.	Homework 10
Week 16	December 9 December 11	Final Exam, 7:30–9:30 AM		Final Exam

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### Class Policies: 1, Grading

- Each student in the class will be assigned a letter grade at the end of the semester.
- Assigned grades can potentially range from A+ to F, or FF for academic dishonesty.
- Plus/minus modifiers will be used as deemed appropriate by the instructor (e.g., A-, B+, etc.).
- Your overall grade will be a weighted average of your homework grade (22.5%), your midterm exam grade (22.5%), your laboratory grade (10%), and your final exam grade (45%).
- There is one mechanism for extra credit, which will be described subsequently.
- Attendance in class does not factor into your semester grade other than helping you to perform well on assignments and exams (i.e., there are no "class attendance points" awarded).
- This class does *not* use a fixed grading scale (e.g., 90=A, 80=B, etc.). The grading scale will be set depending on student performances on the exams and the homework assignments. That way, if the exams are particularly difficult or particularly easy this year, the grading scale will take that into account. Throughout the semester, I will give feedback to students so that you will know how you are performing in the class and so that you know how to interpret your numerical scores.
- Students who cheat or plagiarize should expect to receive a grade of F or, more likely, FF.

#### **Class Policies: 2, Laboratory Experiment**

- We will conduct one lab experiment during the semester that is closely tied to the lecture material from the course. Details of the laboratory experiment will be provided in separate documents.
- Depending on the size of the class, the experiment will likely be conducted by pairs or teams of students. The size of the teams will be determined after we know the class enrollment.
- The lab experiment is intended to foster or inculcate multiple skills and competencies: teamwork, data analysis, effective written communication, hands-on skill with common lab equipment, and ability to apply theoretical concepts to actual data.
- Your grade on the lab will depend mostly on your participation and on the quality of your lab write-up, rather than on the quality of the data you gather. The quality of the data might be a minor consideration in the determination of your grade.

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#### Class Policies: 3, Problem Sets / Homework

- There will be 9 or 10 homework sets to be performed during the semester. The tentative plan is for 10, but we'll see how things go; it could get reduced to 9.
- Depending on how many students are enrolled in the class, I might require assignments to be completed in groups. All students in the group will receive the same score on the assignment. During the first week of class, once the enrollment is set, we will determine if homework assignments will be completed individually, in pairs, or in groups.
- Even if assignments are completed by a group, it is recommended that *all* students work industriously to complete the homework assignments to maximize their mastery of the material covered this semester. If you do a good job on the homework assignments, you are likely to perform well on the exams. If you don't spend the time on the homework, then you are likely to have difficulty on the exams.
- The instructor and the TA will both have office hours during the week to help students with homework problems.
- Students may discuss the homework with each other. However, whatever work is submitted by a group should represent work actually completed by that group. You must conduct the actual computations and write up your own work without referring to the solutions of people outside your group. Copying the work of others (including text, computations, figures, tables, sections of computer programs, spreadsheets, or sections of lab reports) will be considered cheating.
- You may not refer to a previous year's solution sets when completing the homework. That constitutes referral to somebody else's work and is therefore considered cheating.
- Assignments will usually be distributed at least one week before the due date.
- Assignments are due in class on their due date unless otherwise noted. It is possible that, on rare
  occasions, assignments will be due on a non-class day. In those cases, I will provide instructions
  on how to submit the completed work.
- Homework solutions will be provided, usually after the next class following the due date.
- Each group is allowed one late homework submittal during the semester -- no questions asked. Late assignments must be submitted by the beginning of the next class after the original due date. After one late submittal, no late homework will be accepted from that group regardless of reason or excuse. You get one "freebie," and then that is it!
- Homework should be neat and legible, on standard 8.5-by-11-inch or A4 paper, stapled.
- Report numerical answers to a reasonable number of significant digits. The point of this is that you should consider the level of uncertainty associated with your reported answer.
- Your homework solutions must include at least enough detail that I can follow your reasoning and calculations. An answer provided without this level of detail will be considered insufficient.
- Helpful hint: when performing calculations, be careful of your units. You will catch about 90% of your mistakes (yes, really) if you take proper care of your units.

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### Class Policies: 4, Tests / Exams

- There will be a midterm exam given in class and a final exam given at the time set by the registrar.
- The midterm exam will probably be on Wednesday, October 16. The date could be changed to October 14 or October 21 if there is a compelling reason. I will announce a firm date in plenty of time for you to prepare.
- The final exam will be on Wednesday, December 11, from 7:30–9:30 AM (ugh), as determined by the registrar. Re-scheduling the final exam is not possible because the date and time are set by the registrar.
- The format of the examinations (quantitative, qualitative, problem-solving, multiple choice, true/false, essay, etc.) will be left to the discretion of the instructor. I expect that most of the questions will be quantitative problem-solving, but there could be qualitative discussion questions too.
- Exams will be closed-book, but students are permitted to use a *personal note sheet*: one double-sided 8.5-by-11-inch sheet for the midterm, two for the final. On these sheets students may write whatever they like. Sheets must be hand-written no laser printing, scanning, photocopying, etc. Retrieval of information by other means during the examination will be considered cheating.
- If USF requires us to move to on-line teaching and exams, administering and proctoring the tests becomes challenging. In such a situation, *probably* we will move to open-book format, and *probably* you will be allowed to use the internet for tests, but it is not guaranteed. For in-person tests, text books and internet are not allowed.
- Students who will not be available for an exam should inform me far enough *before* the exam to make alternate arrangements.
- Students who miss an exam unexpectedly (e.g., due to sudden illness, family emergency, or other unforeseen circumstances) must provide documentation or evidence of the reason for missing the exam. It will then be *up to my discretion* whether a "make-up" exam will be offered. Make-up exams, if offered, could be either written or oral.
- My intention is to design exam questions such that students who have attended the class and who have diligently completed the homework assignments will be familiar with all the material needed to answer the questions. It will not be my intention to surprise you, only to challenge you.
- Generally, exam questions are intended to test the most important concepts of the class. A good exam should require the students to demonstrate their mastery of the material by synthesizing and applying the most important concepts of the course. Exam questions are not likely to test students on their recall of minutiae.
- Helpful hint: when performing calculations, be careful of your units!! You will catch about 90% of your mistakes (yes, really) if you take proper care of your units.

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#### Class Policies: 5, Attendance

- Attendance in class lectures is recommended but not required. It is likely that diligent attendance
  in class lectures will improve your understanding of the course material, and, hence, improve your
  semester grade.
- Attendance in class does not factor into your semester grade other than helping you to perform well on assignments and exams (i.e., there are no "class attendance points" awarded).
- If you miss class, there is no need to inform me or to provide me with documentation for your absence. (I don't take it personally, really.) However, I do recommend that you acquire the lecture notes from a classmate.
- If you choose to attend class, I require that you do not engage in behavior that distracts me or that disrupts the class for others in attendance:
  - Please make sure mobile phones are turned off and put away.

#### • NO TEXTING DURING CLASS!

- Laptop computers should be used only for taking notes, not for e-mail, web browsing, or any other activity that might distract your classmates or your instructor.
- Please do not chat with your classmates, read the newspaper, work on homework assignments (either for this class or other courses), or engage in any other behavior that is distracting to your classmates or to your instructor.
- If you need to do something other than participate in the class lectures, then please do so outside the classroom.
- Students who are engaged in such activities will be asked to leave the classroom.

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#### Class Policies: 6, Extra Credit

- There will be one mechanism to earn extra credit in this class.
- Throughout the semester, I will be sharing with you chapters from a text book that I am writing for this class. If you find errors in the chapters that I provide, and/or if you make other constructive contributions towards the book, you will be awarded extra credit.
- Extra credit will be awarded in a way that it does not "wreck the curve" for other students. Your grade will not go down if somebody else earns extra credit.
- Catching typographical errors, spelling errors, or other small editorial errors will be worth 2 points (each) on a homework assignment. Catching errors in content will be worth more I will judge how many points to award based on the magnitude of my error and the importance of your contribution. Providing me with content that I decide to include in the book will be worth the most points, and will likely earn you an acknowledgement in the book as well.
- If you make a constructive suggestion about a way in which I can improve the book (e.g., organizing a chapter differently, using a different analogy or example somewhere, making a section longer or shorter for some reason), and I accept your suggestion or think it is a good one, I will award you extra credit for that. However, if you swamp me with a long litany of suggestions merely hoping that one will "stick" and earn you extra credit, then I probably won't read what you send me, and then you are out of luck. Therefore, I advise you to send me only your best suggestions. You will get extra credit for making my life easier, but not for making my life more difficult.
- The deadline for providing me with any corrections or suggestions is the last day of classes. After that, I will still gladly accept your corrections or suggestions, but it will be too late for me to work them into your grade calculation.
- The best way to notify me of my errors or your suggestions is via e-mail. You can use Canvas to send me e-mail, or you can e-mail directly at cunning@usf.edu.

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### Class Policies: 7, Academic Honesty

- All materials generated for this class (including, but not limited to, syllabi, notes, tests, exams, in-class materials, review sheets, and problem sets) are copyrighted. This includes materials that are posted on Canvas as well as materials distributed in class. You may use the materials as a student in the class, but you do not have the right to copy, post, or distribute these materials unless the instructor (or other copyright holder) expressly grants permission.
- Students may record class for their own private, personal use. Recordings may not be given, sold, or otherwise distributed to anybody who is not registered in the class this semester.
- No form of scholastic dishonesty (cheating, plagiarism, etc.) will be tolerated. As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have permission of that person. This includes copying material from books, reports, journals, pamphlets, handouts, other publications, web sites, etc., without giving appropriate credit for those ideas and/or without identifying material as quotations when taken directly from another source.
- All tests and exams must be completed individually without the aid of any other person.
- You may discuss assignments with students who are not in your group. However, when you prepare your assignments, you must do so without referring to the work of students who are not in your group. Copying assignments from a student outside your group is considered plagiarism. See also Class Policy #3, above.
- It is the responsibility of each student to understand what constitutes plagiarism. Claiming ignorance will not gain you leniency.
- Students who cheat or plagiarize will be assigned a semester grade of FF.
- Violation of these rules -- *even unintentionally!* -- can result in disciplinary action including a grade penalty, up to and including an F or FF in the course, suspension, dismissal, and expulsion from USF. If you have any questions regarding plagiarism or other forms of scholastic dishonesty, consult the relevant sections of the USF student catalogs, and/or ask the instructor.
- I am not bluffing. Students have failed my classes because of cheating. Don't cheat.

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#### **Appendix: USF Academic Policies**

On the pages that follow are a number of policies that USF has asked instructors to include in their syllabi. Students should read these policies carefully as they apply to *all* classes at USF.

For most of the policies that follow, only an abbreviated form of the official policy or regulation is provided in this syllabus. Complete details are generally available to students on-line. Specifically, USF's official wording for some of these policies is available at the following web sites.

https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx

http://regulationspolicies.usf.edu/policies-and-procedures/

https://www.usf.edu/undergrad/students/academic-policies-and-processes.aspx

Also, USF requests inclusion of the following language:

USF has a set of central policies related to Covid-19, student recording class sessions, academic integrity and grievances, student accessibility services, academic disruption, religious observances, academic continuity, food insecurity, and sexual harassment that apply to all courses at USF. Be sure to review these online at:

 $\underline{https://www.usf.edu/provost/faculty-success/resources-policies-forms/core-syllabus-policy-statements.aspx}$ 

<u>DISCLAIMER</u>: On the pages following, I have made an earnest effort to provide students with updated, current information regarding USF's policies. However, it is possible that some of the policies might have been updated or superseded since the time that I looked them up. It is incumbent upon the student to look up the current, most-up-to-date version of the relevant policy or procedure.

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## **Academic Integrity (USF System regulation 3.027)**

Academic integrity is the foundation of the University of South Florida's commitment to the academic honesty and personal integrity of its university community. Academic integrity is grounded in certain fundamental values, which include honesty, respect, and fairness. Broadly defined, academic honesty is the completion of all academic endeavors and claims of scholarly knowledge as representative of one's own efforts. The process for faculty reporting of academic misconduct, as well as the student's options for appeal, are outlined in detail in <u>USF Regulation 3.027</u>.

### **Academic Grievance Procedure (USF System policy 10-002)**

The purpose of these procedures is to provide all undergraduate and graduate students taking courses at the University of South Florida an opportunity for objective review of facts and events pertinent to the cause of the academic grievance. An "academic grievance" is a claim that a specific academic decision or action that affects that student's academic record or status has violated published policies and procedures, or has been applied to the grievant in a manner different from that used for other students. <a href="https://usf.app.box.com/v/usfpolicy10-002">https://usf.app.box.com/v/usfpolicy10-002</a>

### **Disability Access (USF System policy 0-108)**

Students with disabilities are responsible for registering with Student Accessibility Services (SAS) (SVC 1133) in order to receive academic accommodations. SAS encourages students to notify instructors of accommodation needs at least five (5) business days prior to needing the accommodation. A letter from SAS must accompany this request. Please visit the **Student Accessibility Services website** for more information.

(*Note*: The Americans with Disabilities Act is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact SAS as soon as possible.)

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### **Disruption of Academic Process (USF System regulation 3.025)**

Disruptive students in the academic setting hinder the educational process. Disruption of the academic process (<u>USF Regulation 3.025</u>) is defined as the act, words, or general conduct of a student in a classroom or other academic environment which in the reasonable estimation of the instructor: (a) directs attention away from the academic matters at hand, such as noisy distractions, persistent, disrespectful or abusive interruption of lecture, exam, academic discussion, or general University operations, or (b) presents a danger to the health, safety, or well-being of self or other persons.

#### **Food and Housing Insecurity**

We recognize that student facing financial difficulty in securing a stable place to live and/or in affording sufficient groceries may be at risk of these financial issues affecting their performance in classes. Students with these needs are urged to contact Feed-A-Bull (<u>feedabull@usf.edu</u> or <u>their website</u>), or Student Outreach and Support (<u>socat@usf.edu</u> or <u>their website</u>).

## **Intellectual Freedom and Viewpoint Diversity Act (House Bill 233)**

#### **Preliminary Guidance Document**

Students may, without prior notice, record video or audio of a class lecture for a class in which the student is enrolled for their own personal, educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach enrolled students about a particular subject. Recording class activities other than class lectures, including but not limited to lab sessions, student presentations (whether individually or part of a group), class discussion, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, private conversations between students in the class or between a student and the faculty member is prohibited. Recordings may not be used as a substitute for class participation and class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the **USF Student Conduct Code**.

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### **Religious Observances (USF System policy 10-045)**

All students have a right to expect that the University will reasonably accommodate their religious observances, practices and beliefs (<u>USF Policy 10-045</u>). The University of South Florida, through its faculty, will make every attempt to schedule required classes and examinations in view of customarily observed religious holidays of those religious groups or communities comprising USF's constituency. Students are expected to attend classes and take examinations as determined by the university. No student shall be compelled to attend class or sit for an examination at a day or time prohibited by his or her religious belief. However, students should review the course requirements and meeting days and times to avoid foreseeable conflicts, as excessive absences in a given term may prevent a student from completing the academic requirements of a specific course. Students are expected to notify their instructors at the beginning of each academic term if they intend to be absent for a class or announced examination, in accordance with this Policy.

### Sexual Misconduct / Sexual Harassment (USF System policy 0-004)

USF is committed to providing an environment free from sex discrimination, including sexual harassment and sexual violence (<u>USF Policy 0-004</u>). The USF Center for Victim Advocacy is a confidential resource where you can talk about incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. This confidential resource can help you without having to report your situation to the Title IX Office unless you request that they make a report. Contact the USF <u>Center for Victim Advocacy</u>: 813-974-5757. Please be aware that in compliance with Title IX and under the USF Policy, educators must report incidents of sexual harassment and gender-based crimes including sexual assault, stalking, and domestic/relationship violence. If you disclose any of these situations personally to an educator, he or she is required to report it to the Title IX Office. For more information about Title IX, a full list of resources, or to report incidents of sexual harassment, sexual violence, relationship violence or stalking visit: <u>usf.edu/title-ix</u>

### Statement of Academic Continuity (or, in other words, emergencies)

In the event of an emergency, it may be necessary for USF to suspend normal operations. During this time, USF may opt to continue delivery of instruction through methods that include, but are not limited to: Canvas, Teams, email messaging, and/or an alternate schedule. It is the responsibility of the student to monitor the Canvas for each class for course-specific communication, and the USF, College, and Department websites, emails, and <u>ALERTUSF</u> messages for important general information (<u>USF Policy 6-010</u>).

(*Instructor's note*: examples of "emergency" could be a hurricane, an outbreak of contagious disease (!!!), etc.)

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#### "Incomplete" Grades

https://catalog.usf.edu/content.php?catoid=21&navoid=3364&hl=%22incomplete%22&returnto=search#i-grade-policy (accessed August 2024)

An "I" grade indicates incomplete coursework and may be awarded to undergraduate students. Undergraduate rules apply to non-degree-seeking students. An incomplete may be awarded to an undergraduate student only when a small portion of the student's work is missing and only when the student is otherwise earning a passing grade. The instructor will be required to complete the I-grade contract online when posting the semester grade at the end of the term, identifying the remaining coursework to be completed, the student's last day of attendance, and the percent of work accomplished to this point. This online contract will be automatically sent to the student's email and to the Office of the Registrar. Until removed, the "I" is not computed in the GPA for undergraduate students. The time limit for removing the "I" is to be set by the instructor of the course; this time limit may not exceed two semesters. "I" grades not removed by the end of the time limit will be changed to "IF" or "IU," whichever is appropriate. If an instructor is willing, they may accept work from a student after an I grade has changed to an IF or IU grade, and assign the student a final grade in the course, unless the student has graduated. Whether or not the student is in residence, any change to "IF" grades will be calculated in the cumulative GPA and, if applicable, the student will be placed on appropriate probation or academically dismissed. Students should not re-register for courses in which they are only completing previous course requirements to change an "I" grade; if a student wants to audit a course for review in order to complete course requirements, full fees must be paid.

## Auditing Privilege (<u>USF System policy 10-006</u>, section IV.B.4.) (accessed August 2024)

Students eligible to enroll in courses may register to audit a course strictly on a space available basis provided the student:

- a. requests and receives any necessary approval as determined by the instructor or other designated responsible office;
- b. understands that no exams, grades, credit, or other academic evaluations may be provided;
- c. officially registers to audit the course by the end of drop/add period, unless participating in the Senior Citizen Auditor program, and does not attend any class session prior to the official registration without affirmative approval by instructor;
- d. attends the class as a listener which means instructors may limit the auditing student's participation in class including class projects or other interactive graded or ungraded activities;
- e. complies with all University Regulations and Policies of the University;
- f. complies with all conditions of audit registration and any deviation from those conditions will be considered disruptive and a student found to be disruptive to the class or academic process may be removed from the class under USF Regulation 3.025 Disruption of Academic Process; and
- g. is responsible for all fees for audit which are the same as for full enrollment for credit, except out of state tuition is not charged.