Indiana University
Department of Chemistry

Associate Instructor Manual
2016-2018

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As an Associate instructor you are both a student and a teacher and it is important for you to know where to go for the different issues in your life. After your first year in the department, whether or not you teach is a decision made by your **research advisor**. After being informed that you will teach, your teaching assignment is determined by the **Graduate Office**. If you have a problem with the assignment you have been given you should contact the Graduate Office. As a teacher, your appointment as an Associate Instructor comes under the umbrella of the **Undergraduate Office**. The Undergraduate Office or UGO is located in C021 of the chemistry building. Located in the undergraduate office are the offices of the Director of Undergraduate Studies, Director of Undergraduate Laboratories, the Scheduling Officer, the Undergraduate Chemistry Advisor, the Freshman Laboratory Coordinator, and the Undergraduate Office Administrative Assistant. The faculty and staff currently holding these positions are listed below.

Cate Reck, Director of Undergraduate Studies
Norman Dean, Director of Undergraduate Laboratories
Becky Wilson, Scheduling Officer
Emily Russ, Administrative Assistant
James Clark, Freshman Laboratory Coordinator
Carly Friedman, Academic Advisor

Cate Reck, as the Director of Undergraduate Studies oversees all aspects of IU's undergraduate degree in Chemistry. Unless you are teaching for her, you will only hear from her if there are student complaints about your performance as an instructor. Norman Dean as Director of Undergraduate Laboratories is supervises all aspects of the laboratory program for the department. If you are assigned as an associate instructor in a laboratory course he is also your supervisor. Student or stockroom staff issues with your performance as a lab AI will be sent to him. He or the Freshman Laboratory Coordinator, James Clark, will be observing you to make sure you are enforcing departmental safety rules and regulations. Becky Wilson is the Scheduling Officer. She is the departmental contact with the registrar's office for reserving classroom space anywhere on campus. If you need to reserve a room, for a review session for your students before an exam, to practice a talk of your own, or for any other reason, you will talk to Becky. She also manages text books for the department so she is the person you will see if you want to check out a desk copy of the text your class is using. Carly Friedman is the academic advisor for the undergraduate students. She also handles campus visits to the department by prospective students. If your research lab regularly has undergraduate students working in it then she may contact you about visiting your lab when she is giving tours of the department. Emily Russ is the offices administrative assistant. She is the person you will interact with to schedule rooms for your office hours or if you have been assigned to proctor the department's early exam or a DSS (disability student services) exam. She is also the person you should contact for any issues involving CALM, the department's grade management system. Some additional information about the UGO personnel is given below.

Dr. Cathrine (Cate) Reck, Director of Undergraduate Studies. Cate teaches a variety of courses for the department: general, organic and inorganic. Cate serves on the Curriculum and the Undergraduate Standards & Awards Committee, is the Faculty Advisor for the Minority Association for Pre-Medical Students (MAPS), the Student Affiliates for the American Chemical Society chapter (SAACS), and is the Secretary of the Local ACS Section (SISACS). She also oversees the Master's in Arts and Teaching (MAT) Program for the department.

Dr. Norman Dean, Director of Undergraduate Laboratories. Norm teaches a variety of laboratory courses for the department. He is responsible for general oversight of the undergraduate laboratory program, is the primary supervisor of the laboratory staff, and oversees the laboratory budgets. In addition he developments experiments for the laboratory courses, and assists the curriculum committee in planning new courses. He is the Co-faculty advisor to the Alpha Chi Sigma (AXE) chemistry fraternity.

Carly Friedman, Academic Advisor. Carly is the primary academic advisor for undergraduate students.

Malia Jackson, Academic Advisor. Malia is a part-time academic advisor for undergraduate students; she also advises for Biotechnology and Stastistics.

Becky Wilson, Manager of Enrollment and Scheduling. Becky builds the class schedule and monitors registration; orders and distributes desk copies of textbooks; works with the professors to set their exam dates and define and meet their exam needs; schedules classroom, review and exam rooms; supervises drop and add; runs scantron exams; and collects all midterm and final course grades.

James Clark, Outreach and Undergraduate Laboratory Coordinator. James plans outreach projects to educate students, teachers and counselors about our program and to encourage a greater interest in science in general. He teaches the departments service learning course, G201. In addition, he oversees AI training, and helps the director of undergraduate laboratories oversee the laboratory program.

Emily Russ, Student Services Assistant. Emily assists with all UGO functions. She is the first contact for students and others who require UGO services. She handles all add/drops of undergraduate classes, prepares 100-level course exams, records AI office hours for posting, and schedules appointments for UGO staff and faculty. If you need something, you might want to start with Emily!

Also associated with the undergraduate office are the departments teaching faculty. Their offices can be found in various locations around the chemistry building.

Dr. Laura Brown, Lecturer. Laura teaches several non-majors and organic chemistry courses for the department while mentoring students in undergraduate research. In addition, Laura serves on the

Curriculum Committee and the Undergraduate Awards Committee and is the treasurer for the Southern Indiana Section of the ACS (SISACS).

Dr. Ben Burlingham, Senior Lecturer. Ben teaches several organic and biochemistry chemistry courses for the department, including service learning. Ben serves on the Curriculum Committee and the Undergraduate Awards Committee.

Dr. Chad Cooley, Visiting Lecturer. Chad teaches a variety of undergraduate courses for the department. His primary teaching responsibilities are in organic chemistry (C341,C342, C343,S343,C344) and C102/122.

Dr. Michael Edwards, Clinical Associate Professor. Michael has a joint appointment with the Chemistry Department and the School of Public and Environmental Affairs. In chemistry he typically teaches C101 or C103.

Dr. Jill Robinson. Senior Lecturer. Jill teaches a variety of courses and developed the bioanalytical lecture/laboratory. She serves on the Curriculum Committee, and the Undergraduate Awards Committee.

Dr. Meghan Porter, Visiting Lecturer. Meghan teaches courses in inorganic chemistry (N330 and C437) and general chemistry (C100, C118).

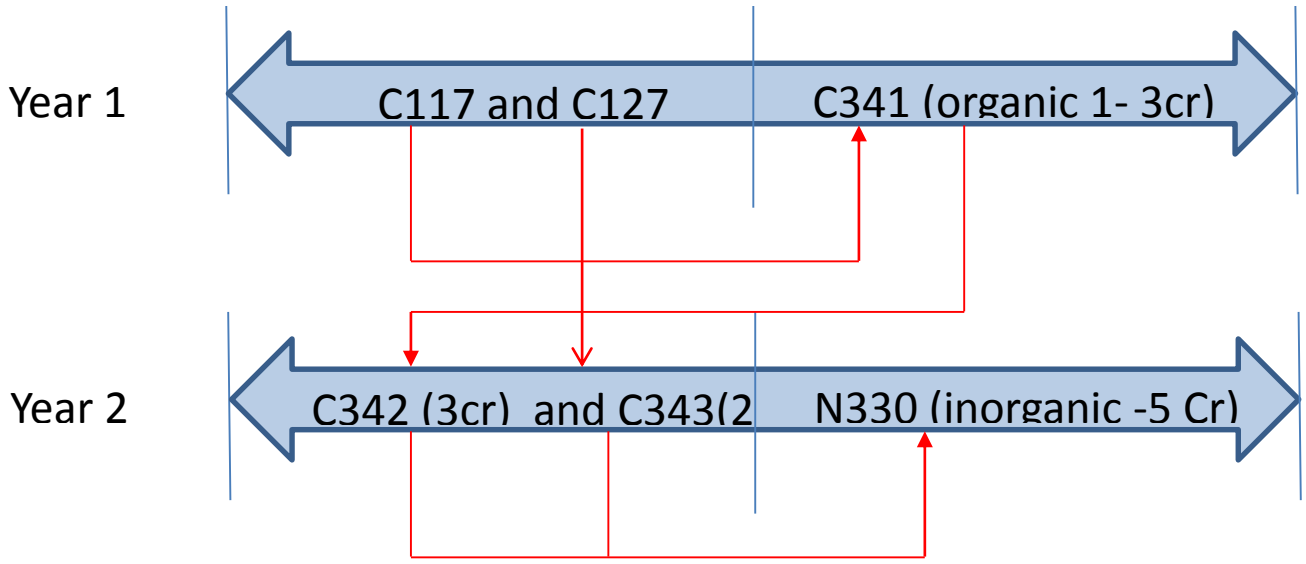
Other Instructional Facilities

Chemistry Duplicating Office: C051. Robin Nordstrom manages the duplicating office in the chemistry department. If you want handouts duplicated for your students she is the person to see. For large print runs 48 hours' notice is required. Even smaller orders may take time if an exam is being prepared so please plan ahead. The copier in the UGO is for office use only and an access code is required to use it, you will not be able to use it for classroom materials.

The Chemistry Resource Center: C046/C006. The Chemistry resource center houses several computer workstations for use by students. These computers have access to all departmentally sponsored software. The center also has 3 semi-private spaces that can be reserved for office hours (see Shelly Dodson), and several couches and lounge chairs that can be used for informal group study sessions.

The Center for Innovative Teaching and Learning (CITL): Herman B Wells Library, 2nd Floor, East Tower, 1320 East Tenth Street. The Center for Innovative Teaching and Learning (CITL) provides comprehensive services supporting excellent teaching and learning at Indiana University Bloomington. They run a variety of teaching workshops throughout the semester which are open to Associate Instructors. You are encouraged to make use of their services.

The IU Curriculum Quick Guide



A modified 1:2:2:1 sequence

The diagram above shows the typical first two years of chemistry courses for an IU science student. The red arrows indicate which courses are pre-requisites for later courses. The department also teaches a course (C103) for students preparing to take C117, and a sequence of courses for allied health majors (C101/121, C102/122).

Course Descriptions for the Courses AI's Teach

(from the *Indiana University College of Arts and Sciences Undergraduate Bulletin*)

Most first year Associate Instructors are assigned to teach a 100-level course, but some may be assigned to an upper level course such as a Biochemistry, Organic, Analytical, or Physical Chemistry course.

AI Teaching Assignments are made by the Graduate Office. They are usually made by Tuesday in the week before classes and are posted on the bulletin board located in the first floor atrium and on the departmental website.

AI's assigned to a lecture course lead discussion sections for that course. Students register for a discussion section when they register for a lecture. A discussion section lasts 50-minutes. AI's assigned to a laboratory course lead a laboratory section. 100-level laboratories are 3 hours and Organic laboratories are 4 hours.

C100 The World as Chemistry (3 cr.) For non-science majors, the chemistry of everyday life - fuels, plastics, drugs, water, air, and living systems. Lectures illustrated by demonstrations, films, and molecular models. Readings include articles from current newspapers and magazines. Prerequisite: Curiosity.

C101 Elementary Chemistry I (3 cr.) Usually taken concurrently with C12l. Introduction to chemistry. Lectures and discussion. May be taken in preparation for Cl17 by students with deficiencies in chemistry.

C121 Elementary Chemistry Laboratory I (2 cr.) Prerequisite or concurrent: C101. Introduction to the techniques and reasoning of experimental chemistry.

C102 Elementary Chemistry II (3 cr.) Usually taken concurrently with C122. The chemistry of organic compounds and their reactions followed by an extensive introduction to biochemistry. Lectures and discussion. The two sequences C101-C121 and C102-C122 usually satisfy programs that require only two semesters of chemistry.

Cl22 Elementary Chemistry Laboratory II (2 cr.) Prerequisite: C101. Prerequisite or concurrent: Cl02. Continuation of C12l. Emphasis on organic and biochemical experimental techniques.

C103 Introduction to Chemical Principles (5 cr) This is a prep course for Cl17. All students registered for Cl17 (see description below) take a placement test to place students into Cl03, Cl17, or Sl17 (honors section of C117). C103 has a laboratory component. C103 and C121 use the same experiments.

CHEM-C 117 Principles of Chemistry and Biochemistry I (3 cr.) **CASE N&M** P: C101-C121 or CHEM-C103, or chemistry and math placement examinations and consent of the department. Lecture course covering basic principles of chemistry and biochemistry, basic mathematical and conceptual principles in atomic structure and periodic properties, molecular structure, chemical bonding, energy (thermochemistry), kinetics, equilibrium and thermodynamics. Credit given for only one of the following: C105, C117 or S117.

CHEM-C 127 Principles of Chemistry and Biochemistry I Laboratory (2 cr.) **CASE N&M** P or C: C117. Basic principles of chemistry and biochemistry that align with the topics in C117. Chemical bonding (atomic structure, molecular structure, molecular orbital theory, and non-covalent interactions), macroscopic properties (energy, kinetics, equilibrium, and thermodynamics). Hands-on laboratory techniques in chemistry necessary for success in later chemistry laboratory courses, especially organic chemistry. Credit given for only one of C127 or C125.

S117 Principles of Chemistry and Biochemistry I, Honors (5 cr.) N& M P: Placement examination or consent of department. For students with unusual aptitude or preparation. An integrated lecture-laboratory course covering basic principles of chemistry and biochemistry. First semester of a two-semester sequence. Credit given for only on of the following: C101-121, C105-C125, S105-S125, Cl17 or Sl17. I Sem.

C118 Principles of Chemistry and Biochemistry II (5 cr.) N & M P: C117 or Cl05-C125. Introduction to the basic principles of chemistry and biochemistry with their applications to physiological (biochemical) functions. An integrated lecture-laboratory course covering basic principles of chemistry and biochemistry. Second semester of a two-semester sequence. Credit given for only one of the following: C102-C122, C106-S126, S106-S126, C118 or S 118. I Sem., II Sem., SS. This course is being phased out.

G201 Service Learning in Chemistry (1 cr.) Prerequisite: C117. Students will work within the community to foster interest, knowledge, and appreciation in the sciences. Assignments will include the preparation and execution of demonstrations and in class lessons at the primary and secondary school levels. May be repeated for a maximum of 3 credit hours.

C240 Preparation for Organic Chemistry (1.5 cr.) Prerequisite: C117 or C106, or permission of instructor This eight-week course is designed for students who are concerned about their chemistry background or would like to maximize their preparation for organic chemistry. If you feel that you have not fully understood the concepts in general chemistry or that you would like a little extra time to learn the basic concepts in organic chemistry, this is a good course to take. The course begins with an overview of concepts from general chemistry, including Lewis structures, molecular structures, polarity, resonance structures and acid-base chemistry. After an introduction to the organic functional found in organic compounds, these concepts are applied to the understanding of reactivity and mechanisms in organic chemistry. C240 is offered in the summer and during the second eight weeks of fall semester. Co-requisite: C106 or C118.

A314 Biological and Environmental Chemical Analysis (4 cr.) Prerequisite: C117 or C106

Theory and application of analytical techniques including statistical treatment of data, spectroscopy, separation methods, electroanalytical methods, radioisotopes, and immunological methods. Laboratory experiments will emphasize chemical methods used for environmental and biological analysis. Credit not given for A314 and A318, or for A314 and A316.

A315 Chemical Measurements Laboratory (2 cr.) Prerequisite: A318 Application of analytical techniques and instrumentation to qualitative and quantitative chemical analysis. Theory, instrumentation, and data analysis will be covered.

A316 Bioanalytical Chemistry Laboratory (2 cr.) Prerequisite: A318 Laboratory experiments involving the application of analytical techniques and instrumentation to chemical analysis of biological samples. Methods include spectroscopy, immunoassays, chromatography, electrophoresis, and mass spectroscopy. Credit given for only one of A316 and A314.

C317 Equilibria and Electrochemistry (2 cr.) Prerequisite or concurrent: C341 or S341, and Mathematics M211. Principles and applications of electrochemistry: galvanic and electrolytic cells; thermodynamics, ion-selective electrodes; redox titrations; voltammetry; bioelectrochemistry, including electrochemistry of metalloproteins; in vivo electrochemistry with ultramicroelectrodes; chemically modified electrodes. Statistical analysis of analytical data: central tendency; dispersion; propagation of errors; significance testing; regression analysis. This course is being phased out.

A318 Analytical Chemistry (4 cr.) Prerequisite: C117 or S117 and Math M211 or M215 Theory and application of three major areas of analytical chemistry: spectrochemistry, separations, and electrochemistry. Topics include ultraviolet, infrared, luminescence, and X-ray spectroscopy, flame and electrical discharge techniques, mass spectrometry, chromatography; electrophoresis, potentiometry, coulometry, and voltammetry. Credit given for only one of A318 and A314.

C318 Spectrochemistry and Separations (2 cr.) Prerequisite: C341 or S341, and Mathematics M211. C318 provides an introduction to commonly used instrumental analytical techniques that fall into two broad categories, spectrochemistry and separations. Separations broadly describes the field of analytical chemistry that encompasses all ways of separating atoms, ions, and molecules. This course is being phased out

N330 Intermediate Inorganic Chemistry (5 cr.) Prerequisite: C341, S341, or R340 An integrated lecture-laboratory course covering structure and bonding of inorganic compounds, including transition metal coordination compounds, organometallic compounds, and bioinorganic complexes. Further topics will include nuclear chemistry, reaction mechanisms and catalysis.

R340 Survey of Organic Chemistry (3 cr.) Prerequisite: C117 or C106 or permission of instructor Classes, structure and reactivity of organic compounds with an emphasis on those found in biological systems. Introduction to spectroscopic methods. Credit given for only one of the following: R340, C341, or S341.

C341 Organic Chemistry I Lectures (3 cr.) N & M P: C106. Chemistry of carbon compounds. Nomenclature; qualitative theory of valence; structure and reactions. Syntheses and reactions of major classes of monofunctional compounds. Credit not given for both C341 and S341. I Sem., II Sem., SS.

S341 Organic Chemistry I Lectures, Honors (3 cr.) N & M P: S106 or consent of instructor. For students with unusually good aptitude or preparation. Credit not given for both 8341 and C341. I Sem.

C342 Organic Chemistry II Lectures (3 cr.) N & M P: C341. Syntheses and reactions of polyfunctional compounds, natural and industrial products; physical and chemical methods of identification. Credit not given for both C342 and S342. I Sem., II Sem., SS.

S342 Organic Chemistry II Lectures, Honors (3 cr.) N & M P: S341 or consent of instructor. Special course for students with unusually good aptitude or preparation, covering same subject matter as C342. Credit not given for both S342 and C342. II Sem.

C343 Organic Chemistry I Laboratory (2 cr.) P: C341. R: C342 concurrently. Laboratory instruction in the fundamental techniques of organic chemistry and the use of general synthetic methods. Credit not given for both C343 and S343. I Sem., II Sem., SS.

S343 Organic Chemistry I Laboratory, Honors (2 cr.) P: S341. R: S342 concurrently. Special course for students with unusually good aptitude or preparation, covering same subject matter as C343. Credit not given for both S343 and C343. II Sem.

C344 Organic Chemistry II Laboratory (2 cr.) P: C342 and C343. Preparation, isolation, and identification of organic compounds; emphasis on modem research methods. Credit not given for both C344 and S344. I Sem., II Sem., SS.

C360 Introductory Physical Chemistry (3 cr.) N & M P: C106, MATH M119, PHYS P201; or equivalents. Elements of thermodynamics, reaction kinetics, molecular quantum states and spectroscopy. For students not intending to specialize in physical sciences. Lectures and discussion. Credit given only for C360, C36/C362, or S361/S362. I Sem., II Sem., SS.

C361 Physical Chemistry of Bulk Matter (3 cr.) N & M P: C106, MATH M212 or M216, and PHYS P202 (or P or C: PHYS P222). Thermodynamics laws, free energy and chemical potentials, gases and dilute solutions, phase transitions, colligative properties, chemical equilibria, ionic solutions, chemical kinetics and transport processes, current topics. Credit given for only one of the following: C361, S361, or C360. I Sem., II Sem.

C364 Introduction to Basic Measurements (3 cr.) Prerequisite: C361 or S361. Experiments in fundamental measurements (thermodynamics, kinetics, and quantum mechanics). Introduction to the basics of electronics in scientific instrumentation. Interfacing computers with laboratory instruments. This course is being phased out.

P364 Basic Measurements in Physical Chemistry (2 cr.) Prerequisiste: C361 or S361 Experiments in this laboratory course will revolve around concepts explored in physical chemistry such as heats of fusion, heat capacities, bomb calorimetry, transport properties, chemical kinetics and basic spectroscopy.

C460 Nuclear Chemistry (3 cr.) Fundamentals of nuclear behavior; nuclear properties, radioactive decay, and nuclear reactions; applications of nuclear phenomena, biological effects of radiation, nuclear analytical techniques, traces, radioisotope dating, nuclear power, and the origin of the chemical elements.

P464 Advanced Measurements in Physical Chemistry (2 cr.) Prerequisite: P364 C: C362 The tools of designing experiments in modern physical chemistry will be explored in this laboratory course. Students will work through the layers involved in physical experiments from it genesis through data analysis. Components of the

class include electronics, computer interfacing, vacuum and laster technology, particle or photon detection, and computations.

C481 Physical Biochemistry (3 cr.) Prerequisite: C361 and C484. This course applies the concepts of physical chemistry to biological systems. Topics covered include the forces governing protein and nucleic acid stability, the thermodynamics of protein folding and protein-ligand interactions, enzyme kinetics, and the physical basis for methods for protein purification, for probing protein-ligand interactions, and for the determination of macromolecular structure.

C483 Biological Chemistry (3 cr.) Prerequisite: 18 hours of chemistry, including C342, or consent of instructor.

This course provides an introduction to the structure and function of biological macromolecules, bioenergetics, and transfer of genetic information. Students learn to appreciate the logic of metabolic pathways and the relationship between metabolic diseases and the enzymes that control these pathways. Student also learn about the complex protein and nucleic acid machines that provide exquisite control over the replication and expression of genetic information.

C484 Biomolecules and Catabolism (3 cr.) Prerequisite: 18 credit hours of chemistry, including C341 and C342.

The first semester of a two-semester course, C484 focuses on two major topics: (1) the relationship between the structure and function of the components of a cell and on the dynamic behavior of proteins; and (2) how organisms derive energy from the sun or from food. Students learn to appreciate the means by which enzymes catalyze chemical reactions and the chemical logic and regulation of metabolic pathways. Students learn to apply the concepts of organic chemistry and thermodynamics they have learned in earlier classes to the understanding of complex living systems. This in-depth treatment introduces students to the means by which enzyme inhibitors can be used as drugs and to an understanding of metabolic diseases, such as diabetes. Credit given for either C484/C485 or C483.

C485 Biosynthesis and Physiology (3 cr.) Prerequisite: C484. The second semester continues your exploration of metabolic pathways, focusing on use of energy to build the molecules needed in each cell. The in-depth treatment of metabolic pathways allows students acquire an understanding of the cross-talk among metabolic pathways and complexity of their regulation. The second portion of this course covers the means by which genetic information is expressed in cells. In addition to learning about metabolic diseases, students will also learn the fundamental biochemical concepts they need to consider nutritional topics and may even be able to launch into an intelligent debate about the science behind the wildly popular Atkins diet. Finally, students will learn about the biochemistry behind the modern genetic engineering and recombinant DNA techniques that allow for the commercial production of protein drugs such as insulin. Credit given for either C485/C484 or C483.

C487 Biochemistry Laboratory (3 cr.) Prerequisite: C484. This course teaches students the fundamental techniques used in biochemical research, including spectrophotometry, protein purification and analysis, electrophoresis, enzyme kinetics, methods for probing protein-ligand interactions, and recombinant DNA methods. In addition, this course provides students the opportunity to polish their scientific writing and other communication skills that prospective employers emphasize when they describe ideal job candidates.

Associate Instructor Duties and Responsibilities Quick Guide

*All AI appointments have the following **minimum** requirements. The course's professor **MAY** have additional requirements for a specific course.*

- Attend ALL sections of the lab/discussion that has been assigned to you
- Attend ALL Lectures for the course
- Attend Weekly AI meeting
- Hold one office hour a week per section you are assigned
  (2 labs = 2 office hours, 4 discussions = 4 office hours)
- Proctoring Exams
  (You may/will be asked to proctor exams for courses other than the one you are teaching)
- Grading
  (You may be asked to grade exams for courses other than the course you are teaching)

As an Associate Instructor for the chemistry department you have a number of responsibilities. These include teaching your classes, holding office hours, attending meetings with your course professor, proctoring exams, and grading your student's assignments. In all of these areas you have an obligation to act in the most professional manner possible. In a few short months, for many of you, you have gone from student to teacher. It's important for you to always treat your students the same way you wanted to be treated when you were in their place.

Your AI position is considered to be a 20 hour a week job. Your time in class and office hours count towards that total weekly commitment, as does the time you are expected to be in lecture, AI meetings, and your preparation and grading time. If at any time you cannot fulfill a duty that has been assigned to you (an office hour, a proctoring assignment…), it is YOUR responsibility to find a qualified replacement and to let the proper people know who your replacement will be.

Proctoring

The course instructor will schedule proctoring duties for in-class and evening exams and grading. Some AI course assignments will not have evening exams and these AI's will be expected to proctor other course exams and will be assigned by the scheduling officer. Evening exams are scheduled for Tuesday, Wednesday or Thursday nights from 7:15p-9:15 and early exams from 5:15p-9:15p. Due to the large number of students taking exams and the lack of large lecture halls available, the number of AI's needed to proctor will exceed the number of AI's assigned per course. Therefore, all AI's may be called upon to proctor for courses other than the one they are assigned to teach. An exam and proctoring schedule will be sent out at least a week before each exam date. Exams rooms can be in the Chemistry Building or anywhere on campus and will not be in the same room for each exam. The early exam room can have several different courses taking exams that date. If you are proctoring an early exam you will have the added responsibility of picking up the early exam materials from the Undergraduate Office before 4:00p the day of the exam. When you are proctoring your job is to monitor the students to ensure that they are not attempting to cheat on the exam. It's not your job to interpret the questions on the exam to the students. Since you may often be proctoring an exam for a course you are not teaching it is dangerous to tell the student what a question "means". If you are asked by a student about a question you should respond "read the question carefully and choose what you feel is the best answer" or some variation of this. As your job is to monitor the students you should not just sit at the front of the room, you definitely should not be reading, or surfing the internet. You should only use your phone if you are trying to reach your professor or head AI to ask a question. Move around the room and watch what the students are doing. If you see something suspicious alert one of the other AI's in the room and ask them to confirm what you are seeing. If you agree that there is a problem try to document the situation as much as possible and alert the

professor or head AI. It is acceptable to ask a student to move to another seat and therefore a good idea to leave one or two places in the front of the room available. Don't stop the student form taking the exam, but keep their exam papers separate from the rest of them when they are done. If you believe they were copying off a particular student try to keep that exam separate as well for later comparisons. Don't ever allow the students to have phones or any other connected devices out during the exam period. At the end of the allowed time, collect the exam materials being turned in, check student ID's, and do your best to keep the room quiet. You don't want students trying to get answers while they are waiting to turn the exam in. Don't start answering questions about the exams. Return the materials to the UGO after the exam.

Grading

Grading exams will usually happen at a predetermined time after the exam and be done as a group. Other grading will be your personal responsibility. You should schedule yourself sufficient time every week to complete your grading. It is unfair to your students for them to not receive graded materials back in a prompt manner. Not only do they have a right to know how they are performing in the class, but they also need the opportunity to use your comments on assignments to help them improve future work. This is particularly important for freshman classes where they are being held to a college level standard for the first time. It's also important that you grade fairly. It is not acceptable to give everyone of your students a perfect score because you are busy with your research project and don't want to spend the time to grade the assignment. Follow the grading guidelines given to you by your professor.

Lecture Attendance

Attending EVERY lecture of the course to which you are assigned is part of your AI agreement. When you are attending class you should set an example for your students and other AI's students. Don't be listening to music, watching videos, or reading the newspaper. Your professor may use what are called active learning techniques in which you will be expected to assist students who are doing in lecture group work. As an AI it is important that you understand and enforce all the professor's course policies. If you are not in the lecture you will not know what the students have been told and will likely give them misinformation later on.

AI Meetings

Most courses with multiple discussion or lab sections will have a weekly AI meeting. This is the opportunity for you to ask the professor questions with regards to course issues. It's also another opportunity for you to find out what the professor is expecting of the students (and of you). Attendance at AI meeting is mandatory. You should come prepared by being familiar with the upcoming course material and completing any specific assignments the professor

has made. If for some reason you cannot attend an AI meeting inform the professor, and make arrangements to get any special information presented from another AI.

Failure to meet any of your duties as an AI can lead to your professor writing a letter to the graduate office and requesting that you be placed on AI probation. This will typically result in your being required to meet with the Director of Graduate Studies. If you are placed on probation, and the problem persist it can lead to your losing your AI position for the following term.

Teaching a Discussion Section

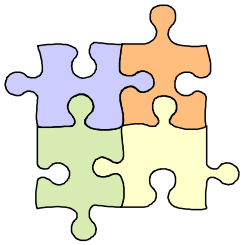
When it comes to teaching the old saying "you don't get a second chance to make a good first impression" really comes into play. Preparation is the key to being an effective teacher. As an AI your preparation needs to include: attending lecture so you know what the course professor has presented to the students, attending AI meetings so you know the professors philosophy with regards to the various course topics, reading through the text so you are familiar with the way your students will be thinking about the material, and thinking about your time in as an undergraduate in chemistry. For each topic re-familiarize yourself with concepts and processes that you had difficulty with and that your students are also likely to find difficult.

Preparation for your very first class of the semester is especially important. Some things that you should do include: finding the room ahead of time (you **don't** want to be late to the first class meeting), knowing what technology is available in the room and how to use it, and dressing and acting professionally. By the middle of the semester once you've established a relationship with your class it may be alright to show up in jeans and a t-shirt but on the first day aim more for a "business casual" look. Things you should bring include a copy of your class roster so you can call roll, a copy of the text book, and a calculator if you anticipate solving problems. You should also consider bringing a copy of the syllabus for the course as on the first day you will likely get many questions about course schedules and policies.

In the past, teaching a discussion section often involved asking about specific homework questions that were causing difficulty for the students and working them yourself on the board. It's now accepted that this is NOT the best way to use your time with the students. Make your discussion sections interactive. There are several ways you could

approach this. Ask students to come to the board and begin solving the problem (ask more than one at a time). When one student gets stuck ask another to jump in and go on. Students aren't likely to volunteer initially so this is another good reason to bring your roster.

Don't count on the students having questions and DON'T just let them leave when they don't bring questions to class. Often your course professor will ask you to go over certain types of problems and may even give you specific questions to work with the students. If not choose some more challenging questions from the text to use in your discussion section. For more difficult problems it often is good to allow the students to work on the problem in small groups first. There are several variations you can use on this. Have them start on their own for a few minutes- tell them how long they have. Remind them that this would be about all the time they might want to spend on a similar exam problem. After time is up have them form groups to discuss the problem.



If they start in groups give them a time limit and at the time limit have one group member move to a different group. This person is going to be a messenger. After discussing the problem with the other group (again for a set amount of time) they go back to their original group and bring back other ideas with them. Don't just let two group exchange members. This is most effective if the rest of the original group members are learning how a third group approached the problem. Technically this is called a "jigsaw".

If you feel more comfortable playing a more direct role in the class, there are still ways to make the time more meaningful to your students. One way, rather than directly working the problem for the students, is to work with them on developing a strategy for the problem first. Once this flow chart is developed they can then attack the individual elements needed to complete the problem. As much as possible try to answer their questions by asking questions, make them work to see the final result- the correctly completed solution.

Having something tangible from the session can help students in their individual studies. Consider having a handout they can take with them. You could start your class with a one question "quiz", or give them a list of important concepts form the chapter under study (yes, it is often already at the back of a chapter). In an organic class they could build a model of a particular molecule.

During the course of the semester, do the best you can to learn your students names. This skill comes easier to some than others. As much as possible use their names when you see them in office hours, in lecture, and even if you pass them in the hallways of the chemistry building.

Teaching a Laboratory Section

Teaching a laboratory section involves different responsibilities than teaching a discussion section. Preparation is still going to be the key to making your teaching assignment a rewarding experience for both you and your students. The first day your lab meets you aren't likely to be performing a true experiment so you still may want to dress in a slightly more professional manner. Once true experiments start however you will probably want to dress in clothing more appropriate to being in a lab. Please remember that all clothing requirements for your students also apply to you. Do NOT show up in shorts, sleeveless shirts, wearing sandals, or any other clothing that would be in violation of the safety agreement.

All of the chemistry laboratories are located in the chemistry building, so you won't have to go far to find your room. The laboratory doors to the main hallways are always locked. This is done as a security measure, to both prevent theft of equipment and protect students in the event that there would be a gunman in the building. If students leave the laboratory for any reason during the course of a lab class, they will need to be let back into the room. Never block the doors open. This is especially important as the laboratories have an active air monitoring system that constantly monitors the room and the hall pressure in an effort to keep the labs at a slight negative pressure. This helps ensure that vapors in the room don't escape to the hallways when the door is opened. When the door is blocked open the system can't maintain the proper pressure in the room. To enter the room, you as an AI should enter through the door from the back hallway. The hall can be accessed from the door marked Chemistry Personnel Only across from room C033. There is an elevator in the back hallway that goes to the 1st floor.

It is critical that you arrive early to your lab section. When you arrive each day, the first thing you should do is get a check list from the back hall. There are samples of both the upstairs and the downstairs lab sheets included below. The next thing you should do is locate the reagents and equipment you will need for the experiment you are performing. Labs meet almost constantly throughout the day and the prep lab staff will not be coming in and cleaning/reorganizing before your section. If the class before you left the lab in an inappropriate condition then note it on the back of the checklist, and return equipment and chemicals to their proper locations for your students. If reagent bottles are empty you can bring them to the prep room for refilling before your class meets. If there are enough chemicals to get started, it is alright to let students bring the bottles to the "Window" when they actually run out. Be sure the student brings the empty bottle with them. If they do not have a bottle, the prep room will assume the bottle is just in use and the students didn't look for it and will send them back to the lab.

It's always important that you have attended your AI meeting and the lab lecture so you are aware of the policies and procedures that the course professor expects to be enforced. Typically you will let you students into class, collecting any assignments that are due as they enter. You should also inspect the students clothing and make sure it meets the requirements of the safety agreement. Goggles must be worn at all times in the lab, so do not allow them into the room unless they are actually wearing their goggles.

You should always plan on starting your class with a short pre-lab lecture. At a minimum this should include safety precautions specific to the days experiment. Unfortunately many students will have skipped the lab lecture and not be aware of potential dangers. You can also go over tricky steps of the procedure or any calculations they will need to do during the lab period. The pre-lab lecture should only be 10-15 minutes long. After you have finished, then allow them to begin the lab. A word of caution, if you have collected assignments due at the start of class be sure to keep them in a safe and secure location otherwise students may be tempted to retrieve their assignments and change or complete them when you are not looking.

During the lab period you should be constantly circulating through the room. Do not grade assignment, read the literature, or surf the web while you are teaching lab. Observe the students, answer simple questions that they might have. Don't allow one student or group of students to monopolize your time and attention. During this time keep an eye on the waste bottles. When they have reached the full line, send a student to the prep room to ask the staff to bring a new bottle. If the bottle overflows, it will be YOUR responsibility to remediate the waste, not the prep rooms.

At the end of the period everything on the checklist needs to be documented as completed. These tasks should be assigned to students as they finish the experiment. It is alright if some tasks are repeated by students finishing later in the period. Don't let any students leave without having performed one of the cleanup procedures from the check list. If you don't require the students to complete these tasks, it will be your responsibility to perform all of them. Turn in the check list to the folder in the back hall when your class is over.

AI Post-Lab Checklist: Under Grad Labs

To be completed before you leave at the end of your lab section!

Duty	Completed
Ensure All Reagent/Solvent Bottles Capped With Correct Caps	
Return All Reagent Bottles to the Reagent Hood	
Ensure that the Reagent Hood is Tidy	
Return All Provided Equipment to its Original Location	
Bring Empty Solvent/Chemical Bottles to Stockroom	
Clean Any Glassware Left Out	
Make Sure Glassware is Cleaned and Returned to the Correct Bin	
Turn Off Lights in All Hoods and Close Sashes	
Check UV/Vis Spectrometer for Cuvettes	
Cap/Close Waste Bottles	
Ensure Gas Valves are Turned Off	
Ensure All Water Faucets Have Been Turned Off	
Ensure All Hot/Stir Plates and Heating Mantles are off, cool, and in Proper Place. **If still hot, leave out.	
Ensure Balances and Balance Area Are Clean	
Throw Away Any Misc. Trash Left Around Lab	
Return Misc. Items to Cabinets/Drawers	
Inform Stockroom Of any Issues	
Make Sure ALL Counter Tops are Wiped Down	

*Please initial after each duty has been fulfilled. Not all duties may be applicable for every lab period. In these cases, please mark the "Completed" column with an "N/A."

Thank you for your help in keeping the lab areas clean and organized for your fellow AI's and stockroom attendants.

Room_____ Class_____ Lab Day/Time_____

AI Name_____

AI Signature_____ Date_____

If there are any issues with the lab when you arrived please note these issues on the back of this form in detail.

AI Post-Lab Checklist: Org. Teaching Labs

To be completed before you leave at the end of your lab section!

Duty	Completed
Cap All Reagent/Solvent Bottles Capped With Correct Caps and Place in the Reagent Hood	
Tidy Reagent Hood	
Return Cold-Stored Chemicals to the Stockroom Window	
Bring Empty Solvent/Chemical Bottles to the Stockroom Window	
Unplug Rotavaps & Pumps & Empty Rotavap Solvent Traps	
Clean Balances & Balance Area	
Turn Off TLC UV-Lamp	
Unplug Mel-Temps and Remove Abandoned Thermometers	
Bring Abandoned Glassware to the Stockroom Window	
Ensure All Hoods are Tidy	
Return All Hot/Stir Plates and Heating Mantles to Their Proper Place	
Turn Off Lights in All Hoods & Close Sashes	
Ensure Gas Valves are Turned Off	
Ensure All Water Faucets Have Been Turned Off	
Throw Away Any Misc. Trash Left Around Lab	
Return Misc. Items to Cabinets/Drawers	
Check For & Remove Glass Items from Waste Bin	
Cap Waste Bottles	
Clean IR/UV-Vis Area. Place Clean Salt Plates in Desiccator.	
Empty & Rinse Polarimeter Cell. Turn Off & Unplug Polarimeter.	
Check NMR For Abandoned Samples. Turn Off Air & Place Spinner in Holder.	

*Please inital after each duty has been fulfilled. Not all duties may be applicable for every lab period. In these cases, please mark the "Completed" column with an "N/A."

Thank you for your help in keeping the lab areas clean and organized for your fellow AI's and stockroom personnel.

Room_____ Class_____ Lab Day/Time_____

AI Name_____

AI Signature_____ Date_____

The First Day of Lab

All AI's teaching labs have a special responsibility on the first class session. All IU undergraduates MUST sign a safety agreement for every chemistry class that they take. The safety agreement governs appropriate dress and behavior of students while in the lab. No student should perform ANY work in the lab without completing a signed safety agreement. It's your responsibility as a laboratory AI to go over the points of the safety agreement with the students. Point out where in the room specific safety equipment such as showers, eye washes, and fire extinguishers are located to the students as well. Only students who are officially on the roster should be allowed to sign a safety agreement. Often the students on the waiting list will ask to be in the room in case they happen to get added.

Every student in a chemistry lab MUST have completed the online safety quiz before they are allowed to work with any glassware or chemicals. The last step of the quiz is an electronic signature which has replaced the paper form. If your class is working in the lab on week one, you have to check that students have completed the quiz BEFORE you arrive at your lab section. Any student who has not completed the quiz or has checked the "No I don't agree to follow these rules" button cannot be allowed to do any work or even be in the lab if others are working. The quiz is administered through the University's classroom information system called CANVAS. Your instructor may have you make the quiz accessible from your individual lab sections page or may manage the safety agreement from the lecture sections page.

The department Safety Rules and regulations are printed below.

Chemistry Safety Agreement

1. **Eye Protection**

Since eyes are especially vulnerable in a chemistry laboratory, approved splash protective safety goggles MUST BE WORN AT ALL TIMES. Failure to do so can result in IMMEDIATE EXPULSION from the lab and an unexcused absence for that experiment.

Safety Goggles are NOT available to be lent out by either the Laboratory Stockroom or the Undergraduate Office.

Eye injuries, whether chemical or mechanical, must always be considered serious. The laboratory instructor should be alerted immediately. The best procedure in case of chemical injury to the eye is immediate and prolonged (15-20 minutes) flushing with water. Eyes must be forced open to be washed well. Contacts should be removed as soon as possible in order to properly flush the eyes.

2. **Protective Clothing**

Shoes must cover the entire foot; this includes the heel and the top of the foot up to the ankle. Bare feet and any type of open shoe or sandal may not be worn in chemistry laboratories. Socks are to be crew length (over the ankle) or longer. Fabric and athletic shoes offer little protection from chemical spills and are discouraged. Shoes of leather or watertight construction are recommended.

Shorts, Capri pants, skin-tight pants (e.g. leggings, Jeggings, exercise pants, etc.), mini-skirts, sleeveless shirts, and bare midriffs are NOT PERMITTED. Pants, skirts, and dresses must cover the leg to the ankle.

Boots. When wearing boots your pants or skirt MUST go over the top of the boot. There have been significant injuries when chemicals have fallen into a boot and gone unnoticed for several hours.

Hair that is long enough to be tied back should be pulled back and kept away from the face.

Gloves are provided for those experiments that require them. When gloves are exposed to a chemical, they should be removed and replaced with a new pair. Students should remove their gloves prior to using the computer keyboard or mouse, touching personal items, or before leaving the laboratory at any time.

3. **Injuries**

In case of minor cuts and burns, students should report them immediately to their instructor. Minor first aid treatment can be given within the building. If a minor injury requires medical attention, contact the stockroom staff.

If a person is seriously injured, no attempt should be made to move the person unless absolutely necessary, such as in the case of a fire. Call 911 immediately and alert the stockroom staff. The

instructor should be alerted and should send someone to meet emergency personnel outside. Someone should stay with the injured person until help arrives.

4. **Medical Expenses**

Except in very unusual circumstances, all medical claims are the responsibility of the student. This includes the case of emergency ambulance transportation and emergency room treatment. Health Insurance coverage by a family plan or individual student is strongly encouraged.

5. **Fire**

Each student should familiarize him/herself with the location and proper use of the fire extinguishers and fire blankets. Should a fire alarm sound while you are working in the lab, turn off any gas valves, hotplates & equipment that are in use and leave the building by the nearest exit. Go to your lab section's designated meeting area inside Ballantine Hall, or across the street by the Union and stay with your classmates until your instructor can take a head count and give you appropriate direction.

If a person's clothing catches fire, the first thing to do is throw the individual to the floor and roll them over several times to smother the flames quickly or cover them with a fire blanket. Never let them remain in a standing position even if you must trip or knock them down; this will help prevent injury to the respiratory passages and the eyes by flames, which would naturally rise and envelop the head.

Never turn a fire extinguisher of any type on a person. Eye injury may result from a dry chemical type or frostbite from the "snow" of the carbon dioxide type of extinguisher. Do not use the safety shower to extinguish a person on fire. Fire blankets are available in the laboratory to help extinguish the fire.

6. **Chemical Spills**

For most chemical spills on a person's skin, rinsing with plenty of running water (for at least 15 minutes) is the best first aid treatment. Rapid and immediate treatment is essential. Use lots of water; a little water or a damp cloth may be worse than none because of the heating effect of water with acid or alkali materials. The safety shower is intended to be used in case corrosive and/or toxic chemicals are spilled or splashed over a large body area and must be washed off rapidly. Clothing soaked with strong acid or alkali or a toxic chemical should be removed. This is no time for modesty. Spills on laboratory benches, floors, in fume hoods, and other laboratory areas must be cleaned as soon as possible after they occur. In the case of any chemical spill, alert your laboratory instructor immediately. For hazardous materials a chemical spill kit is available for you and your AI to use in cleaning the spill. Do not use the spill kit without your AI's supervision.

7. **Chemical Odors**

EXERCISE GREAT CARE IN NOTING THE ODOR OF FUMES AND AVOID BREATHING FUMES OF ANY KIND. If notation of chemical odor is required for an experiment, waft the vapors toward the face while keeping the vessel at a distance.

8. **Personal Safety**

Do not eat, drink, smoke, or chew gum or tobacco in the laboratory. Smoking is prohibited anywhere on the Indiana University campus. Keep backpacks, coats, etc. away from the lab benches and out of the aisles. Do not sit on lab benches. Wash your hands before leaving lab. Cell phone and personal music devices are prohibited in the laboratories for sanitary and safety reasons.

9. **Waste Disposal**

Most chemicals cannot be poured down the drain. Students should ask their instructor for directions regarding the disposal of chemicals.

Cracked or chipped glassware should be taken to the Prep Lab Service Window as soon as discovered where replacements can be obtained.

Broken glassware, disposable glassware, and anything with a sharp edge or point must be placed in the white plastic buckets labeled NONHAZARDOUS SHARP WASTE. Disposable glassware must be rinsed before being discarded.

Non-disposable glassware must be washed and dried before returning it to the appropriate storage locations for the safety of other students. Consult with your AI if you do not know if glassware is to be discarded.

10. **Health Concerns & Pregnancy**

Students who are pregnant are discouraged from taking a chemistry lab course because of the potential for chemical exposure. The course can be dropped before the end of the first week at no cost to the student or if pregnancy occurs during the semester, an incomplete can be given. In either case, it is important that the instructor of the lab course be informed at the earliest opportunity. Persons with severe allergies or sensitivities, heart ailments or a seizure condition should check with a physician before taking a chemistry laboratory course, and notify the AI and the professor of their condition.

Emergency Preparedness

Medical

Medical emergencies can happen anywhere, they aren't limited to teaching labs. Students are as likely have a seizure or pass out in a discussion section as they are in a lab. Having thought about these situations and having a plan is always good preparation. In labs send a student to get help from the lab staff in the prep room. They can assess the situation and place a call for an ambulance. In a discussion section you will likely be on your own to decide what to do. When in doubt, call 911. You should call 911 anytime a student loses consciousness. The student can always refuse the trip to the hospital if they revive before the ambulance arrives. Just be aware if you call from your cell phone you will connect directly with the city/county dispatch and they won't be able to tell from the phone information where you are. Stay calm and give very clear directions as to what building, floor and room you are in. If your room has an IU phone init your call will go to the campus police department. They should be able to tell where you are calling from. Again give a clear description of what has happened.

Weather

Indiana is a state that gets tornados, and other severe weather conditions. Most rooms will not have a weather radio and you cannot count on being able to hear a warning siren inside a building. The university has a system for sending out emergency notifications to cell phones and email called IUAlert. It can take a while for 40,000 people to receive a notice. If you find that there is a tornado warning you should move your students to a designated tornado shelter in the building you are teaching in. For Labs in the chemistry building all labs except C027, C149, and C133 are tornado shelters. In these three rooms you should move your students to one of the designated hallways. If you are not familiar with the System used in the United States, a Warning is issued when a threat is imminent. A watch is issued when conditions are correct for the possible formation of a tornado. You do not need to take any direct action if a watch has been issued.

Fire

In the event of a fire alarm evacuate your students to a designated location outside and away from the building. You should know how many students you had in your room and do a head count at the gathering location. Every building has evacuation routes listed for each floor. Find yours and follow them. In the event of a fire alarm every building has floor wardens who will be assisting with the evacuation. Follow any specific directions you are given. Alarms should always assumes to be real and you shuld never stay in a building with a fire alarm that has been activated. In the chemistry building we insist that students move well

away from the building, across the street to the IMU sidewalks or over near Ballentine Hall. In other buildings you should plan on moving an equal distance away.

Other

In this day and age you should be prepared for other situations that might occur on campus. IUAlerts will again be activated should there be a known threat on campus. Generally the response in these situations is to Shelter in Place. If the activity is in your building do what you can to prevent being a target; turn off the lights, stay out of view from the doorway, keep quiet. The doors to the chemistry labs are locked in part to prevent unauthorized people from entering the rooms easily.

INDIANA UNIVERSITY

DEPARTMENT OF CHEMISTRY

Associate Instructor Agreement

I, _____, have read and agree to the following

(Print your name)

terms of my Associate Instructor appointment within the Indiana University Department of Chemistry.

The department considers the safety of students to be of primary importance in our mission of education. This includes both the physical as well as the psychological and emotional safety of our students. Therefore, I agree to:

1) follow all safety rules as outlined in the Laboratory Safety Agreements, the "Associate Instructor's Manual", and the Department of Chemistry "Safety and Chemical Hygiene Plan". This includes wearing goggles whenever I am in the laboratory, wearing appropriate clothing, providing proper disposal of all chemical waste, and using gloves to handle chemicals when appropriate.
2) providing a safe classroom environment for my students by following the principles outlined in the Indiana University "Code of Student Rights, Responsibilities, and Conduct", the "Associate Instructor's Manual", the Indiana University "Code of Academic Ethics", and other university policies as outlined in the "Schedule of Classes and Student Academic Information". I have the obligation to report any violations of these policies as outlined in these documents.
3) protect student privacy with respect to their educational records and I have successfully completed the on-line FERPA tutorial, https://ferpa.iu.edu/
4) **(once you complete the FERPA tutorial forward a copy of the confirmation email to Toni Lady tlady@indiana.edu.)**

In addition, I am expected to:

1) attend all lectures and other course meetings as requested by the faculty.
2) hold regular office hours as agreed to at the beginning of the semester. It is my responsibility to find a replacement if I am unable to meet my obligation and inform the Undergraduate Office.
3) proctor and grade examinations as assigned by the Undergraduate Office. It is my responsibility to find a replacement if I am unable to meet my obligation and inform the Undergraduate Office and the faculty member.
4) grade, record grades, and return materials to students in a timely fashion as required by the course instructor.

Any member of the faculty or departmental staff have the authority to enforce and report any violations of the above regulations. I understand that failure to follow these rules can result in verbal and/or written warnings, being placed on AI probation, loss of AI stipend, with immediate dismissal from the program.

Signed,

_____ _____

Signature Date

_____ _____

Printed name Student ID#

FERPA

Family Educational Rights and Privacy Act

WHAT IS FERPA?

The Family Educational Rights and Privacy Act (FERPA, sometimes called the Buckley Amendment), grants four specific rights to the student:

- the right to see the education records that the institution is maintaining on the student
- the right to seek amendment to those records and in certain cases append a statement to the record
- the right to privacy with respect to disclosure of the education records
- the right to file a complaint with the U.S. Department of Education Family Compliance Office

WHAT DEFINES A STUDENT EDUCATION RECORD?

Just about any information related to the student and maintained by the university for use in the education process is considered a student education record including:

- university identification number (SSN or random ID number)
- personal data
- enrollment records
- grades
- class schedules

Examples of a student education record include:

- a document in the registrar's office
- a computer printout in your office
- a class list on your desktop
- a computer display screen
- an electronic file received as an attachment

WHAT ARE THE BASIC RULES?

Once a student begins attending an institution of post-secondary education, all privacy rights move to that student (away from the parents). The general principle is that student education records are considered confidential and may not be released to third parties (including parents) without the written consent of the student.

As a school official you have a responsibility to protect any and all education records in your possession.

You have access to private information only for legitimate use in completion of your responsibilities as a university employee. Casual access for personal reasons or "just out of curiosity" is a FERPA violation.

If you are ever in doubt about what may be released, *err on the side of caution*. Do not release any information until you contact your course professor or the Office of the Registrar at (812) 855-0121. The Office of the Registrar is responsible for student record information that is maintained in the academic record.

SPECIAL "DON'TS" FOR FACULTY (Including AI's)

To avoid violations of the FERPA regulation:

- DO NOT display the university identification number (SSN or random ID number) of a student in a public posting of grades
- DO NOT link the name of a student with that student's university identification number in any public manner
- DO NOT leave graded tests or papers in a stack for students to pick up
- DO NOT circulate a printed class list with student name and university identification number as an attendance roster
- DO NOT provide anyone with lists of students enrolled in your classes for any commercial purpose
- DO NOT provide anyone with lists of students enrolled in your classes for any research purpose without the written consent of the student

FERPA Tutorial

PROTECT OUR STUDENTS' PRIVACY

In an effort to protect student privacy with respect to their education records, the federal Family Educational Rights and Privacy Act (FERPA), commonly referred to as the Buckley Amendment, was enacted in 1974. Any educational institution that receives funds from the U.S. Department of Education must comply with the Act. In compliance with that regulation, Indiana University, by action of the Faculty Council (March 29, 1977, amended October 2, 2001), instituted the Release of Student Information Policy.

The tutorial is designed to give you a base level knowledge of the rules governing access to and release of student information.

As part of your Chemistry AI agreement, you must complete the on-line FERPA Tutorial: http://ferpa.iu.edu

(once completed, forward the completion email to Dalane Anderson; her email is DGA@indiana.edu)

Indiana University's Annual Notification of Student Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

1. *The right to inspect and review the student's education records within 45 days of the day the University receives a request for access.* A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. *The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.* A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. *The right to provide written consent before the University discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.* The University discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the

official needs to review an education record in order to fulfill his or her professional responsibilities for the University. Upon request, the University may disclose education records without consent to officials of another school in which a student seeks or intends to enroll. Finally, "public information" may be released freely unless the student files the appropriate form requesting that certain public information not be released. This form is available at the Office of the Registrar. Public information is limited to name; address; e-mail address; phone; major field of study; dates of attendance; admission or enrollment status; campus; school, college, or division; class standing; degrees and awards; activities; sports; and athletic information.

4. *The right to file a complaint with the U.S. Department of Education concerning alleged failures by Indiana University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:*

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

SOME COMMENTS FOR ASSOCIATE INSTRUCTORS BASED ON MY OWN EXPERIENCES AND OBSERVATIONS

by Dennis G. Peters
Herman T. Briscoe Professor of Chemistry

For those individuals who enjoy teaching or who aspire to be teachers-and for those who expect to pursue a career where interactions with others are sure to occur-being an Associate Instructor is an incredibly valuable and enriching experience. Being an Associate Instructor teaches you a lot about yourself and a lot about how to interact and communicate with others. You'll learn to be tolerant, resourceful, and innovative.

Important Roles, Responsibilities, and Attitudes of an Associate Instructor (Teacher)

Someone has said that the role of a teacher is to teach students to teach themselves. What are the ways in which an Associate Instructor can set about trying to reach this lofty goal? Below, hopefully, are some answers to this profound question that are based on quite a few years of personal observations, experiences, and mistakes.

1. Benefit from your own experiences as a student

Recall your own experiences as a student in a class headed by an inexperienced teacher (a graduate student or a young faculty member). Try to remember what was good and what was bad about both the class and the instructor's performance. Think deeply and constructively about how to take advantage of the good points you remember and how to avoid the bad points you remember.

2. Benefit from lectures that you attend

In much the same vein as the preceding point, when you attend a lecture-and you are not so much concerned with taking detailed notes about the content of the lecture for some later examination-spend a little time, as you are listening and observing, just thinking about and analyzing the style of the lecturer. Does that individual speak to the audience, or spend most of the time facing the blackboard or screen? Are visual aids (slides, overhead transparencies) useful and intelligible, or have they been quickly and sloppily prepared? Does the speaker give you enough time to see and understand the visual aids, or does the lecturer race through a seemingly infinite number of visual aids? Does the speaker write legibly and allow time for the audience to hear, see, and write down pertinent points? Is the speaker enthusiastic? Does the speaker speak audibly and clearly? Are there good things about that lecture you could use in one of your own lectures? As someone interested in teaching, I frequently find myself analyzing the lectures and lecturing styles of visiting speakers in these ways.

3. Acting as an interface

As an Associate Instructor and an essential part of a teaching team, you are the interface between students and professors. You must understand, support, and reinforce the professor. You must not undermine (even unintentionally) the way the course is presented by the professor by making some casual or offhand remark to your students about the way the course is proceeding or not proceeding. On the other hand, you can often help the professor immeasurably by reporting to him or her what you are experiencing as an Associate Instructor and where your students are encountering difficulty.

Acting effectively as a team, one or more Associate Instructors and a professor should be working toward the same common goal-the presentation of the best possible lecture or laboratory course.

4. Punctuality

Because you are responsible to and for your students, you must be punctual. This means that you want, if anything, to be early to your class or laboratory meeting. Being early permits several good things to happen. First, students immediately perceive that the class is important to you, and consequently it becomes more important to them. Second, in arriving early, you can actually do a bit of mingling with early-arriving students to sense their concerns and questions, and to learn their names. Third, on occasion, you will discover that the previous instructor has left the room or laboratory in some disarray that, by being early, you can correct. Fourth, by arriving early, you have a chance to layout your notes and materials, to catch your breath, and to collect your thoughts for an effective beginning.

5. Preparation

Preparation before arriving at the lecture room or the laboratory is crucial. You know from your own social experiences that first impressions are all important. Similarly, the first lecture or two, or the first laboratory experiment or two, of a semester set the tone for the entirety of that semester. You can win over your students with good initial performances and then continue to reap those benefits, or you can bomb out at the beginning of the semester and perhaps never gain the goodwill of your students. Moreover, you can never let down in being well prepared. You must be well prepared for overseeing laboratory experiments, which (ideally) means you have actually practiced or rehearsed every experiment, so you know it backward and forward. You must be well prepared to work problems, which means actually doing completely the assigned problems and probably as many other related problems as possible; moreover, you should be so familiar and comfortable with working the problems that you do not need to rely upon someone else's answer key.

Associate Instructors who find themselves leading discussion sections have a particularly demanding responsibility, where preparation is of utmost importance. Among other things, these individuals must be able to work all assigned (and unassigned) problems, to answer questions about the lectures of the professor-in-charge, and to answer questions about other topics of the course-all of these being done readily and with minimal (and, hopefully, without) error. One way-and, I think, the best way-to aid your preparation is by attending all of the lectures or laboratory discussions offered by the professor. Of course, you have probably heard most (if not all) of the material before, but the point is that you will be getting a review of the material and you will see what is being emphasized, what is being omitted, what is being assumed, and how certain kinds of problems are being solved-so you will be able to prepare yourself better for the questions that your students ask.

Another way to prepare yourself for teaching is to visualize yourself actually working with a group of students. If you will be leading a discussion section, find out where the room is located and visit the room in advance; learn how the blackboards and lights operate, and see if facilities for overhead transparencies or computers are available. Then spend some time visualizing how you would use the room and the facilities effectively. These actions can do a great deal to minimize the inevitable anxiety that precedes the first class meeting of every semester-those first-day jitters that seem to resurface no matter how many years you have been a teacher.

6. Be in contact with your class (students)

Speak to your students; be sure that you engage their attention when you speak. Speak clearly and audibly, and avoid jargon. Experts in presenting technical or scientific material have concluded that

no more than 100-120 words per minute should be spoken; this seems like an unbelievably slow pace, but it is absolutely essential for the hearing and comprehending of such complex material, and to speak much faster will only lose your audience. Try hard to integrate your students into the presentation of material by soliciting their questions and then responding meaningfully to those questions. Learn the names of your students as quickly as possible.

7. Admit ignorance

Sooner or later, a student will ask a question that you cannot immediately answer. In such a case, the best thing to do is admit that you do not know the answer. However, it is then essential to do one of two things. First, you can inform the student that you will seek the answer and that you will provide an answer as soon as possible; then, as quickly as you can, consult appropriate books or colleagues to obtain the answer, and report back to the student. Second, and an approach I tend to prefer, is to have the student go with you to your bookshelf or to the library to seek out the answer; in this second scenario, it is best not to take the student with you when you consult with a colleague, because at times you can look rather stupid when a colleague informs you of what might be obvious to him or her but not to you. In addition, working in the library with a student teaches that student how to use the library and how to be resourceful-and those are good things. Finally, as stated earlier, you want to be well prepared so that you do not have to admit your ignorance very often.

8. Seriousness and professionalism

These attributes are obvious traits of a true teacher-scholar. You must take your subject seriously and you must behave professionally, if you are to gain credibility with students. If you exhibit these qualities, your students will too, and they will be apt to work harder and to show more commitment. However, exhibiting these qualities does not mean that you should be an individual without humor or compassion.

9. Do not talk down to or belittle students

Talking down to students creates an atmosphere in which the Associate Instructor seems to know everything and in which the students know little or nothing. Instead, it is encumbent upon an Associate Instructor (or a professor) to treat students as young colleagues and to nurture an environment in which instructor and students together are on a collective quest for knowledge. It is catastrophic to student morale if an Associate Instructor (or professor) tells students or otherwise makes them think that they are inferior and stupid. You will never profit from announcing that a particular student question is stupid or that the student is stupid. Although students certainly do not know everything and certainly have much to learn-as we all do-your challenge as an Associate Instructor (or professor) is to advance the students' knowledge and their abilities to learn and to teach themselves. Finally, never criticize or belittle a student in the presence of his or her peers; if you have some critical matter to discuss with a student, ask him or her to see you privately during your office hours.

10. Attitude

Behave as if you are important, and treat your students as if they are even more important. Believe, and demonstrate by your behavior and actions, that what you are doing is very important, and you should find that your students will take the same attitude.