N440
3D Compositing and Visual Effects

Department of Human-Centered Computing
Indiana University School of Informatics and Computing, Indianapolis
Fall 2019

Section No.: 26192 *Credit Hours:* 3
Time: Mondays 3:00 – 5:40 pm
Location: IT 255, Informatics & Communications Technology Complex
535 West Michigan Street, Indianapolis, IN 46202 [map]
First Class: August 26, 2019

Instructor: Zebulun Wood, MS in Technology, Lecturer
Office Hours: by Appointment
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Prerequisites: N243

Course Description

An advanced course covering the integration of CGI (computer-generated imagery) and digital effect techniques for video production, as used in industry. Students learn the techniques for creating digital effects, shooting video for effects, and the use of effects to aid in the telling of a story.

Extended Course Description

Course covers digital CG effects, by bringing together existing footage, modeling, texturing, lighting, camera techniques, matchmoving, compositing, filter layering, color correction, video effects and green screen. Students will design environments and create believable, cohesive production shots. This is a course in Hollywood Visual Effects production and common methodologies.

Required Text:

There are no required texts for this course.

Equipment needed:

Notebook
IU Box Account http://www.box.iu.edu

Software used:

Autodesk Maya
Adobe Production Suite
Nuke

Course Structure

The course structure is composed of these parts:

- Lectures / Lab
  - This activity will be the majority of class time. It will include critical review of contemporary media as appropriate to class. Use of software packages to implement concepts into practice.
- Projects:
  - Weekly tasks will be assigned for each team member.
  - Students MUST have their work completed weekly for credit in this class. Weekly assignment sheets will be collected for use in assessing student work.

Learning Outcomes:

Upon completion of this course, the student will	*RBT	IUPUI+	PLOs	Assessment
1. Students will create and composite CG into video to industry standard.	2,3,6	P2.1; P3.2	4,6	Weekly Assignments, Milestone1-3, Final
2. Students will understand and apply detailed modeling, animation, texturing, and dynamic effects.	2,3	P2.1; P3.2	4,6	Weekly Assignments, Milestone1-3, Final
3. Students will apply and analyze complex 3D camera and object tracking practices.	3,4	P2.1; P3.2	4,6	Weekly Assignments, Milestone1-3, Final
4. Students will deliver production and portfolio quality projects that deliver advanced aesthetics, fluidity in animation, and mastery of composite and post production workflows.	3,4,5,6	P3.2	7	Weekly Assignments, Milestone1-3, Final
5. Students will deliver film and short story and scientific simulation productions.	3,4,5,6	P3.2	7	Milestone1-3, Final
6. Students will composite and complete standard procedures that work across a variety industry standard platforms.	3,4,5,6	P2.1; P3.2	4,6	Weekly Assignments
7. Students will create productions that are efficient in space and time.	3,5,6	P2.1; P3.2	4,6	Milestone1-3, Final

8. Students will develop sound vocabulary and eye to analyze, evaluate, and present and critique projects both online and in classroom.	2,4,5	P1.4; P3.2	2,7	Weekly Assignments

*RBT: Revised Bloom's Taxonomy: 1. Remembering, 2. Understanding, 3. Applying, 4. Analyzing, 5. Evaluating, 6. Creating

Media Arts and Science B.S. Program-level Learning Outcomes	†***Profiles of Learning for Undergraduate Success (PLUS)***
1. Understand digital media and its effective use as a form of communication.	**P1.1 Communicator –** Evaluates Information
2. Communicate ideas effectively in written, oral, and visual form to a range of audiences.	**P1.4 Communicator –** Conveys Ideas Effectively **P1.2 Communicator** – Listen Actively* **P3.2 Innovator –** Creates/Designs**
3. Work effectively as a member of a team to achieve a common goal.	**P2.2 Problem Solver –** Collaborates **P1.3 Communicator –** Builds Relationships*
4. Analyze a problem, identify and evaluate alternatives, and plan an appropriate solution.	**P2.1 Problem Solver –** Thinks Critically **P3.1 Innovator –** Investigates*
5. Evaluate media from multiple perspectives using the theories, concepts, and language of digital media with an appreciation for the history, theory, and traditions of digital media.	**P2.3 Problem Solver –** Analyzes, Synthesizes, and Evaluates
6. Demonstrate mastery of the concepts, techniques, and tools in one or more digital media specialties.	**P2.4 Problem Solver –** Perseveres **P3.2 Innovator –** Creates/Designs*
7. Develop professional quality digital media productions by promptly applying knowledge and skills including best practices and standards.	**P3.2 Innovator –** Creates/Designs **P3.3 Innovator –** Confronts Challenges*
8. Explain the impact of digital media on individuals, organizations, and society.	**P4.4 Community Contributor –** Anticipates Consequences **P4.1 Community Contributor –** Builds Community*
9. Acknowledge diverse opinions regarding professional, ethical, legal, and social issues with a global perspective.	**P4.3 Community Contributor –** Behaves Ethically **P4.2 Community Contributor –** Respectfully Engages Own and Other Cultures*

10. Plan for continuing professional development with an appreciation of the need for lifelong learning.	**P3.4 Innovator –** Makes Decisions

Course Outcomes

Students will develop concepts from completed storyboards in animation/simulation productions from inception to completion. Their concepts will be sketched on storyboards and their production flow will be documented in a conceptual paper that defines your respective approach. High quality storyboards and papers must be completed before the beginning of your projects.

EXPECTATIONS, GUIDELINES, AND POLICIES

Attendance:

A basic requirement of this course is that you will participate in all class meetings, whether online or face-to-face, and conscientiously complete all required course activities and assignments. Class attendance is required for classroom-based courses. It entails being present and attentive for the entire class period. Attendance shall be taken in every class. If you do not sign the attendance sheet while in class, you shall be marked absent. Signing the attendance sheet for another student is prohibited. The instructor is required to submit to the Registrar a record of student attendance, and action shall be taken if the record conveys a trend of absenteeism.

Only the following are acceptable excuses for absences: death in the immediate family (e.g. mother, father, spouse, child, or sibling), hospitalization or serious illness; jury duty; court ordered summons; religious holiday; university/school coordinated athletic or scholastic activities; an unanticipated event that would cause attendance to result in substantial hardship to one's self or immediate family. Absences must be explained with the submission of appropriate documentation to the satisfaction of the instructor, who will decide whether missed work may be made up. Absences that do not satisfy the above criteria are considered unexcused. To protect your privacy, doctor's excuses should exclude the nature of the condition and focus instead on how the condition impacts your attendance and academic performance.

Missing class reduces your grade through the following grade reduction policy: You are allowed two excused or unexcused absences. Each additional absence, unless excused, results in a 5% reduction in your final course grade. More than six absences result in an F in the course. Missing class may also reduce your grade by eliminating opportunities for class participation. For all absences, the student is responsible for all covered materials and assignments.

Incomplete:

The instructor may assign an Incomplete (I) grade only if at least 75% of the required coursework has been completed at passing quality and holding you to previously established time limits would result in unjust hardship to you. All unfinished work must be completed by the date set by the instructor. Left unchanged, an Incomplete automatically becomes an F after one year. http://registrar.iupui.edu/incomp.html

Deliverables:

You are responsible for completing each deliverable (e.g., assignment, quiz) by its deadline and submitting it by the specified method. Deadlines are outlined in the syllabus or in supplementary documents accessible through Canvas. Should you miss a class, you are still responsible for completing the deliverable and for finding out what was covered in class, including any new or modified deliverable. In fairness to the instructor and students who completed their work on time, a grade on a deliverable shall be reduced 10%, if it is submitted late and a further 10% for each 24-hour period it is submitted after the deadline.

Assessment - Each Class will access

Oral presentation - Being involved in class lectures/demos
Writing skills
Critical thinking
Application of knowledge
Intellectual depth, breadth, and adaptiveness
Understanding of society and culture
Values and ethics

Grading Information:

Weekly Assignments

All assignments are to be delivered in a folder with your name, class #, and week # titled, if the assignment is Maya based; with Maya project folders, and will be evaluated through Canvas within the week.

Each weekly assignment is worth 50 points each.

Weekly assignments will consist of certain body parts and beginning to develop an appreciation of how the body works and moves. Students will learn to see, be patient, and develop a strong sense of foundations in proportion and anatomy.

Milestone # 1 is a preliminary check on your ability and sight of compositing a still photo with 3D elements, concern is with matching color, shadow, reflections and grain of the plate. Worth 100 pts

Milestone # 2 is a secondary check your ability and sight for compositing but this time with a still camera video plate, concern is with matching color, shadow, reflections and grain of the plate. Worth 100 pts

Milestone # 3 is a tertiary check on your ability and sight for compositing but this time with a moving camera video plate, concern is with matching camera movement, with your 3D color, shadow, reflections and grain to the plate. Worth 100 pts

Final Project Milestone is a final assessment of your ability to understand and implement the practices learned each week and is worth 300 points.

100 points towards camera Match
100 Zbrush Cohesiveness and overall believability of the shot
100 points matching of color, shadow, reflections of 3D and 2D art to plate

Professionalism (100 pts)

Professionalism is the highest quality a student of industry can gain and respect. We are all adults, the following are areas in which we will earn or lower your grade over the 11 weeks of class.

- Attitude (be excited)
- Tardiness
- Contributing and requesting of Critiques in class
- Deliverables (turning in what is asked for, the way its asked for)
- Effort
- Looking and smelling the part
- Presentation Quality
- Teamwork (Are you contributing effectively? Socially?)
- Timeliness (time spent on projects versus peers)
- Time tracking (What are you worth? How long are you taking?)

Tentative Weekly Outline

Week 1:
Introduction, Project Details
Past Course Inquiries
- View prior class projects
- Siggraph 2013/CGTalk/3D websites

Project 1, 2, 3 Details
Lecture: Breaking it Up, Analyzing Content, Evaluating projects
After Effects Interface, 2D vs Matte painting, vs 3D
Lab:
Assignment: 2 Video Co-Pilot Tutorials #'s 87 and 71
Bring in 3 examples of recent blockbuster breakdowns
Outcome: Video Co-Pilot requirements ensure basic interface and toolset knowledge for applying basic to advanced concepts. These assignments also help students visualize and realize the power of certain tools within after effects.

Week 2:
Lecture: Milestone #1 (due week #5)
Color Correction, Gamma Correction in Maya/ AE, Creating Masks, luma Masking, and Painting Masks

Lab:
Assignment: - 2 Video Co-Pilot Tutorials #52 and 53
Masking Elements assignment.
Outcome: Video Co-Pilot requirements ensure basic interface and toolset knowledge for applying basic to advanced concepts. These assignments also help students visualize and realize the power of certain tools within after effects.

Week 3:
Lecture: Lighting in 3D for a composite shot. Setting Up Render Layers/Passes,
Lab:
Assignment: - 2 Video Co-Pilot Tutorials #49 and # 50
Color Correction and Gamma Assignment
Outcome: Video Co-Pilot requirements ensure basic interface and toolset knowledge for applying basic to advanced concepts. These assignments also help students visualize and realize the power of certain tools within after effects.

Week 4:
Lecture: Color Keying, Pre-Production Planning for Live Video Shoots
Assignment: - 2 Video Co-Pilot Tutorials # 60, 68

Outcome: Video Co-Pilot requirements ensure basic interface and toolset knowledge for applying basic to advanced concepts. These assignments also help students visualize and realize the power of certain tools within after effects.

Week 5:
Lecture: Motion Tracking in After Effects and Mocha
Lab: Camera Matching Assignment Mocha, Matchmover

Assignment – Benchmark 3 competitor Compositing projects, break them down, and report their methods and how you can learn from their projects for your next 2 milestones. Due Week 6.

Milestone# 2 Assigned: 3D composite into live video. 5 second minimum. Use of past 3D Character/Creatures/Objects encouraged. Due week 10.

Deliver production schedule. Week #6

Week 6:
Lecture: Building Virtual Sets in Maya from Live Video Reference
Lab:
Assignment: Work on milestone #2, provide update Week #7 / Meet production Schedule.
Outcome: Library assignment allows student to strategize potential ways of attack for their own compositing final.

Production schedule will serve as weekly milestones for final project.

Week 7:
Lecture: Camera Tracking Live video into Camera in Maya. Matchmover
Lab:
Assignment: Work on milestone #2 /Meet production Schedule.

Outcome: Production schedule will serve as weekly milestones for final project.

Week 8:
Lecture: Planning Render Layers for Compositing Animation into Live Video, Command Line Rendering, Progress Presentations, Lab time
Lab: Demo:
Assignment: Meet production Schedule.

Outcome: Production schedule will serve as weekly milestones for final project.

Week 9:
Progress Presentations, Lab time
Assignment: Meet production Schedule.

Outcome: Production schedule will serve as weekly milestones for final project.

Week 10:
Presentations of Milestone #2, Go over Final Project, 3D into live video 10+ seconds

Outcome: Production schedule will serve as weekly milestones for final project.

Week 11:
Pitches for Final project, Story, technique, and production schedule review.
Outcome: Production schedule will serve as weekly milestones for final project.

Week 12:
Lecture: Incorporating Dynamics into advanced composites, Caching, render planning, uses referencing.
Outcome: dynamics add to believability and incorporate automated animation for more believable CG shots.

Week 13:
Lecture: Review Rendering Techniques, Gamma prep, and progress updates
Applying Gamma Correction and Lighting Setup for Compositing
Lab: Demo Gamma Correction, SSS implementation, Passes Setup
Assignment: Continue on final project based on Production Schedule

Outcome: How to incorporate humans and organic CG with SSS composites is a crucial part of film and CG compositing.

Week 14:

Lecture: Review Rendering Techniques, Gamma prep, and progress updates

Lab: begin rendering 3D elements

Assignment: Continue on final project based on Production Schedule

Outcome: How to incorporate Gamma correction is a crucial part of film and CG compositing.

Week 15:

Lab: WorkDay, finish grading, color correction, and shot completions.

Assignment:

Week 16:

Present Final Project , and self reflection

Example

	Due Date	Assignment	Points
Assignment #1		Video Copilot Tutorials 87 and 71, 52, 53, 49, 50, 60, 68	50
Milestone #1			150
Assignment #5		Proposal For Assignment #2, Benchmark 3 competitor Compositing projects, break them down, and report their methods and how you can learn from their projects for your next 2 milestones. Due Week 6	50
Assignment #6		Work on milestone #2, provide update Week #7	50
Assignment #7		Work on milestone #2, provide update Week #8	50
Assignment #8		Work on milestone #2, provide update Week #9	50
Milestone #2		Present Milestone #2	100
Assignment #9		Work on milestone #2, provide update Week #11	50
Assignment #10		Work on milestone #2, provide update Week #12	50
Assignment #10		Work on milestone #2, provide update Week #13	50
Milestone #3		Progress report/critiques on Final Project	100
FINAL		Presentation	300
Professionalism			100

Grading Scale:

A+	100% +	Professional level work, showing highest level of achievement
A	93–99.99%	extraordinarily high achievement, quality of work; shows command of the subject matter
A–	90–92.99%	Excellent and thorough knowledge of the subject matter
B+	87–89.99%	above average understanding of material and quality of work
B	83–86.99%	Mastery and fulfillment of all course requirements; good, acceptable work
B–	80–82.99%	satisfactory quality of work
C+	77–79.99%	modestly acceptable performance and quality of work
C	73–76.99%	minimally acceptable performance and quality of work
C–	70–72.99%	Unacceptable work (Core course must be repeated for credit)
D+	67–69.99%	Unacceptable work (Course must be repeated for credit)
D	63–66.99%	Unacceptable work
D–	60–62.99%	Unacceptable work
F	Below 60	Unacceptable work

Please note that the minimum grade for credit towards a major (both core and electives), minor, or certificate is a grade of C.

Grading Standards

A – Outstanding, high quality work.

- A fully completed project that demonstrates mastery of skills.
- Projects that display creative and sometimes innovative work.
- The students created many sketches and investigated several options before choosing one.
- Combinations of color schemes, space, and image layout were used effectively and chosen carefully for final project.

B – Good to very good work.

- The student completed the components of the project, but neglected to experiment with additional or more challenging technical approaches.
- The work demonstrates good abilities in the respective new media applications, but may lack depth and level of skill.
- Space was filled adequately and a few combinations of design were tried.
- The project could be lacking in areas of design, planning, or technical approach.

C – Average work.

- The work demonstrates average skills in depth, design, and application.
- No more than what was required of the course was completed.

- The work is possibly incomplete in parts or used the wrong file extension on handed in projects.

D – Below average work.

- The work is largely incomplete and displays a lack of effort.
- Very little time was put into the software and thusly resulted in poor quality work.
- The files handed in had errors or were unable to be downloaded.

F – Failure to complete the objectives of the course.
I - Incomplete

Students are expected to complete their work in the allotted time of this session. However, because of unforeseen hardships students may not be able to complete the project in the time established for completion of his/her work. To receive a grade of Incomplete you must have 75% of the course work completed at a passing level.

POLICIES CONCERNING ASSIGNMENT/PROJECT DEADLINES

- **NO LATE PROJECTS WILL BE ACCEPTED.**
- **Any project will be assigned a score of 0 (zero) points if not turned in by the stated project deadline.**
- Please check Canvas assignments to determine when your project is due. It is your responsibility to understand due dates.
- Please check Canvas assignments to determine the proper way to turn in the project due. **All** projects will be turned in through the assignment tab on Canvas.
- In the event that Canvas is not available, only IUBox may be used as a secondary upload site. Please refer to the PDF "Policy for Failed Canvas Submission" posted in the course syllabus section and follow stated procedures.
- If projects exceed 200 MB in size, then only IUBox may be used as a secondary upload site. Please refer to the PDF "Policies for Project Submission Through IUBox" posted in the course syllabus section and follow stated procedures..
- Please label **all** media appropriately. Points will be taken off for improperly labeled media and assignments
    - Example for file: lastName_ClassNumber_projectName.fileExtension
        - JoanSmith_N100_project 1.jpg
    - Example for media: Joan Smith, Class ###, Project ###
        - Joan Smith N100 Project 1
- Meeting project checkpoints will be required for full point credit on projects. Please reference the Canvas assignment for specifics on each project.
- Midterm and Final exams/presentations will only be administered during set class times. A score of 0 (zero) points will be assessed on any exams not taken during class.
    - Exams will only be scored if a signed exam sheet is turned in on the day of the test
- In class quizzes that are missed will be scored a zero and no make up quizzes will be administered.

- Project grades may be challenged for one week after being posted. Project grades not challenged with-in seven calendar days will be final.

OTHER CONSIDERATIONS

- Please come to class on time and be prepared to start on time.
- Participation in class discussions, including class critiques and any written papers or critiques are required and will be considered in final grading.
- Students will develop and present individual projects unless otherwise approved in writing from the instructor.
- All electronic devices should be turned off and not used during the entirety of class time.
- Social sites such as Facebook, Twitter, or any others, may not be accessed during class time.
- Work for other courses may not be done during this class time.
- If you need to leave class early, please inform the instructor in advance.
- **Food is strictly forbidden** in the computer labs.
- **Laptops should only be used for taking notes, not for running advanced software. All in-class work must be performed on lab computers.**
- The outcomes and artifacts developed for any one class in Media Arts and Sciences at IUPUI cannot be the same or overly similar between semesters or in the same semester for one student or group of students or one faculty or group of faculty. The project must be differentiated, the expectations for the project outlined, and the faculty involved, notified and in agreement prior to the semester beginning. In other words, all projects must be unique and may not be used from one class to another without instructor permission.

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Attendance will be taken at the beginning of class by the instructor or teaching assistant. Students present at the beginning of class will receive full credit for attendance. Students arriving after attendance has been taken will receive 80% credit for that class period: it is the responsibility of the late arriving students to contact the instructor or TA at the end of class to make sure they are marked late and not absent. Students who do not attend will be marked absent and will receive 0% attendance for the class period.

Only the following are acceptable excuses for absences: death in the immediate family (e.g. mother, father, spouse, child, or sibling), hospitalization or serious illness; jury duty; court ordered summons; religious holiday; university/school coordinated athletic or scholastic activities; an unanticipated event

that would cause attendance to result in substantial hardship to one's self or immediate family. Absences must be explained with the submission of appropriate documentation to the satisfaction of the instructor, who will decide whether missed work may be made up. Absences that do not satisfy the above criteria are considered unexcused. To protect your privacy, doctor's excuses should exclude the nature of the condition and focus instead on how the condition impacts your attendance and academic performance.

Missing class reduces your grade through the following grade reduction policy: Each class factors into a score of 100 points. Any missed or late classes will reduce this score. You are allowed two excused or unexcused absences. Each additional absence, unless excused, results in a 5% reduction in your final course grade. **More than six absences will result in an F in the course**. Missing class may also reduce your grade by eliminating opportunities for class participation. For all absences, the student is responsible for all covered materials and assignments.

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http://registrar.iupui.edu/incomp.html

CODE OF CONDUCT
All students should aspire to the highest standards of academic integrity. Using another student's work on an assignment, cheating on a test, not quoting or citing references correctly, or any other form of dishonesty or plagiarism shall result in a grade of zero on the item and possibly an F in the course. Incidences of academic misconduct shall be referred to the Department Chair and repeated violations shall result in dismissal from the program.

All students are responsible for reading, understanding, and applying the *Code of Student Rights, Responsibilities and Conduct* and in particular the section on academic misconduct. Refer to *The Code > Responsibilities > Academic Misconduct* at http://www.indiana.edu/~code/. All students must also successfully complete the Indiana University Department of Education "How to Recognize Plagiarism" Tutorial and Test. https://www.indiana.edu/~istd You must document the difference between your writing and that of others. Use quotation marks in addition to a citation, page number, and reference whenever writing someone else's words (e.g., following the *Publication Manual of the American Psychological Association*). To detect plagiarism instructors apply a range of methods, including Turnitin.com. http://www.ulib.iupui.edu/libinfo/turnitin

Academic Misconduct:

1. **Cheating:** Cheating is considered to be an attempt to use or provide unauthorized assistance, materials, information, or study aids in any form and in any academic exercise or environment.
   a. A student must not use external assistance on any "in-class" or "take-home" examination, unless the instructor specifically has authorized external assistance. This prohibition includes, but is not limited to, the use of tutors, books, notes, calculators, computers, and wireless communication devices.
   b. A student must not use another person as a substitute in the taking of an examination or quiz, nor allow other persons to conduct research or to prepare work, without advanced authorization from the instructor to whom the work is being submitted.
   c. A student must not use materials from a commercial term paper company, files of papers prepared by other persons, or submit documents found on the Internet.
   d. A student must not collaborate with other persons on a particular project and submit a copy of a written report that is represented explicitly or implicitly as the student's individual work.
   e. A student must not use any unauthorized assistance in a laboratory, at a computer terminal, or on fieldwork.
   f. A student must not steal examinations or other course materials, including but not limited to, physical copies and photographic or electronic images.
   g. A student must not submit substantial portions of the same academic work for credit or honors more than once without permission of the instructor or program to whom the work is being submitted.
   h. A student must not, without authorization, alter a grade or score in any way, nor alter answers on a returned exam or assignment for credit.
2. **Fabrication:** A student must not falsify or invent any information or data in an academic exercise including, but not limited to, records or reports, laboratory results, and citation to the sources of information.
3. **Plagiarism:** Plagiarism is defined as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered "common knowledge" may differ from course to course.
   a. A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.
   b. A student must give credit to the originality of others and acknowledge indebtedness whenever:
      1. directly quoting another person's actual words, whether oral or written;
      2. using another person's ideas, opinions, or theories;
      3. paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
      4. borrowing facts, statistics, or illustrative material; or
      5. offering materials assembled or collected by others in the form of projects or collections without acknowledgment

4. **Interference:** A student must not steal, change, destroy, or impede another student's work, nor should the student unjustly attempt, through a bribe, a promise of favors or threats, to affect any student's grade or the evaluation of academic performance. Impeding another student's work includes, but is not limited to, the theft, defacement, or mutilation of resources so as to deprive others of the information they contain.
5. **Violation of Course Rules:** A student must not violate course rules established by a department, the course syllabus, verbal or written instructions, or the course materials that are rationally related to the content of the course or to the enhancement of the learning process in the course.
6. **Facilitating Academic Dishonesty:** A student must not intentionally or knowingly help or attempt to help another student to commit an act of academic misconduct, nor allow another student to use his or her work or resources to commit an act of misconduct.

OTHER POLICIES

1. **Administrative withdrawal:** A basic requirement of this course is that students participate in all class discussions and conscientiously complete all required course activities and/or assignments. If a student is unable to attend, participate in, or complete an assignment on time, it is the student's responsibility to inform the instructor. If a student misses more than half of the required activities within the first 25% of the course without contacting the instructor, the student may be administratively withdrawn from this course. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and a student who has been administratively withdrawn from a course is ineligible for a tuition refund. Contact the instructor with questions concerning administrative withdrawal.
2. **Civility:** To maintain an effective and inclusive learning environment, it is important to be an attentive and respectful participant in lectures, discussions, group work, and other classroom exercises. Thus, unnecessary disruptions should be avoided, such as ringing cell phones, engagement in private conversations, and other unrelated activities. Cell phones, media players, or any noisy devices should be turned off during a class. Texting, surfing the Internet, and posting to Facebook or Twitter during class are generally not permitted. Laptop use may be permitted if it is used for taking notes or conducting class activities. Students should check with the instructor about permissible devices in class. IUPUI nurtures and promotes "a campus climate that seeks, values, and cultivates diversity in all of its forms and that provides conditions necessary for all campus community members to feel welcomed, supported, included, and valued" (IUPUI Strategic Initiative 9). IUPUI prohibits "discrimination against anyone for reasons of race, color, religion, national origin, sex, sexual orientation, marital status, age, disability, or veteran status" (Office of Equal Opportunity). Profanity or derogatory comments about the instructor, fellow students, invited speakers or other classroom visitors, or any members of the campus community shall not be tolerated. A violation of this rule shall result in a warning and, if the offense continues, possible disciplinary action.
3. **Communication:** For classroom-based courses, the instructor or teaching assistant should respond to emails by the end of the next class or, for online courses, within two Indiana University working days, which excludes weekends and holidays. The instructor should provide weekly office hours or accept appointments for face-to-face, telephone, or teleconferenced meetings, and announce periods of extended absence in advance.

4. **Counseling and Psychological Services (CAPS):** Students seeking counseling or other psychological services should contact the CAPS office by phone at 274-2548 or email at capsindy@iupui.edu. For more information visit http://life.iupui.edu/caps/.
5. **Course evaluations:** Course evaluations provide vital information for improving the quality of courses and programs. Students are urged to complete one course and instructor evaluation for each section in which they are enrolled at the School of Informatics and Computing with the following three exceptions: (a) The student has withdrawn from the course; (b) fewer than five students are enrolled in the section (in which case maintaining anonymity is difficult); and (c) the section is a laboratory that must be taken with a course having a different section number. Course evaluations are completed at https://soic.iupui.edu/app/course-eval/. Course evaluations are typically open from the eleventh week. Course evaluations are anonymous, which means that no one can view the name of the student completing the evaluation. In addition, no one can view the evaluation itself until after the instructor has submitted the final grades for the course. In small sections, demographic information should be left blank, if it could be used to identify the student.
6. **Disabilities policy:** In compliance with the Americans with Disabilities Act (ADA), all qualified students enrolled in this course are entitled to reasonable accommodations. Please notify the instructor during the first week of class of accommodations needed for the course. Students requiring accommodations because of a disability must register with Adaptive Educational Services (AES) and complete the appropriate AES-issued before receiving accommodations. The AES office is located at UC 100, Taylor Hall (Email: aes@iupui.edu, Tel. 317 274-3241). Visit http://aes.iupui.edu for more information.
7. **Email:** Indiana University uses your IU email account as an official means of communication, and students should check it daily for pertinent information. Although you may have your IU email forwarded to an outside email account, please email faculty and staff from your IU email account.
8. **Emergency preparedness:** Safety on campus is everyone's responsibility. Know what to do in an emergency so that you can protect yourself and others. For specific information, visit the emergency management website. http://protect.iu.edu/emergency
9. **IUPUI course policies:** A number of campus policies governing IUPUI courses may be found at the following link: http://registrar.iupui.edu/course_policies.html
10. **No class attendance without official enrollment.** Only those who are officially enrolled in this course may attend class unless they are enrolled as an auditor or making up an Incomplete by prior arrangement with the instructor. This policy does not apply to those assisting a student with a documented disability, serving in an instructional role, or administrative personnel. http://registrar.iupui.edu/official-enrollment-class-attendance.html Children may *not* attend class with their parents, guardians, or childcare providers.
11. **Religious holidays:** Students seeking accommodation for religious observances must submit a request form to the course instructor by the end of the second week of the semester. For information visit http://registrar.iupui.edu/religious.html.
12. **Right to revise:** The instructor reserves the right to make changes to this syllabus as necessary and, in such an event, will notify students of the changes immediately.
13. **Sexual misconduct:** IU does not tolerate sexual harassment or violence. For more information

and resources, visit http://stopsexualviolence.iu.edu/.

14. **Student advocate:** The Student Advocate provides assistance to students with personal, financial, and academic issues. The Student Advocate Office is located in the Campus Center, Suite 350. The Student Advocate may also be contacted by phone at 317 274-4431 or by email at studvoc@iupui.edu. For more information visit http://studentaffairs.iupui.edu/advocate.

MISSION STATEMENT

The Mission of IUPUI is to provide for its constituents excellence in

- Teaching and Learning;
- Research, Scholarship, and Creative Activity; and
- Civic Engagement.

With each of these core activities characterized by

- Collaboration within and across disciplines and with the community;
- A commitment to ensuring diversity; and
- Pursuit of best practices.

IUPUI's mission is derived from and aligned with the principal components—Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices—of Indiana University's Strategic Directions Charter.

STATEMENT OF VALUES

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana's capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community, both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.