



IUPUI

**SCHOOL OF INFORMATICS
AND COMPUTING**

DEPARTMENT OF HUMAN-CENTERED COMPUTING
Indiana University–Purdue University
Indianapolis

INFO I467

Internet-of-Things Interface Design for Business Innovation

**Department of Human-Centered Computing
Indiana University School of Informatics and Computing, Indianapolis
Spring 2018**

Section No.: *Credit Hours:* 3
Time: Thursdays, 12–2:40 pm
Location: IT 255, Informatics & Communications Technology Complex
535 West Michigan Street, Indianapolis, IN 46202 [map]
First Class:
Website: <https://canvas.iu.edu/...>

Instructor: Lou Lenzi, BS Industrial Design
Office Hours: Tuesdays and Wednesdays, 1–3 pm, or by Appointment
Office: WK 315, Walker Plaza Building
719 Indiana Avenue, Indianapolis, IN 46202 [map]
Phone: (317) 379-4455 (Cell)
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Website: <https://soic.iupui.edu/people/lou-lenzi/>

COURSE DESCRIPTION

Students employ human–machine interface design principles and practices as an innovation engine for Internet-of-things (IoT) ecosystems. Through design challenges, they develop and refine IoT interfaces and their business models, drawing on case studies and a review of the literature. Students acquire design-as-strategy skills through team-based, industry specific design projects.

Prerequisites: INFO I270, INFO I275, or INFO I300

AUDIENCE

This course is ideal for undergraduate students enrolled in human-computer interaction who wish to relate interface design and design-systems thinking to connected business strategies. Given the scope of the subject, the course also welcomes undergraduate students from the Herron School of Art and Design, the Department of Computer and Information Science, the School of Engineering and Technology, and the Media Arts and Science program who possess a basic understanding of human-computer interaction processes, tools, and

techniques, best obtained by completing INFO H541 and INFO H543, or with the instructor’s approval.

EXTENDED COURSE DESCRIPTION

The Internet of things (IoT) is a network of connected physical objects—also referred to as “connected devices” and “smart devices”—designed to collect and exchange data to improve the performance, functionality, and efficiency of a larger ecosystem. The application of human–machine interface design (HMI/D) principles and practices to these machine-based IoT ecosystems is becoming a strategic business imperative, creating additional enhancements to these systems, identifying entirely new capabilities, and developing new business models and future growth opportunities.

With a focus on human-centered computing processes and principles applied at a business systems-level, this course examines HMI/D as an innovation engine for IoT ecosystems through three, five-week study modules, each led by an industry guest lecturer focused on a specific industry vertical. The first week of each module begins with the individual student studying the subject industry vertical in depth, in preparation for a substantive classroom dialog with the lecturer. Following the presentation and discussion, the instructor concludes the session by issuing a design challenge to the class, addressing a potential future-state facing their business. The challenge may target an emerging technology, a behavioral trend, a competitive threat, or other potential disruption facing their business.

Three-person student teams conduct the four-week, industry-led design challenge. Mentored by the instructor, each team identifies and employs design research and ideation techniques focused specifically on the challenge and creates prototypes of potential solutions. The instructor evaluates these solutions in a mid-point group critique session. The teams refine their solutions with instructor input, and derive a final proposal. A compelling business case presentation is prepared by the teams and presented to the industry guest lecturer at the end of the fourth week. Their solution should demonstrate the student’s skills in connecting HMI/D methods to wide-scale business strategies.

COURSE FOCUS: INDUSTRY PARTICIPATION AND INTERACTION WITH STUDENTS

The class focuses on the direct engagement of students with industry leaders involved in the design of wide-scale, innovative human-centered IoT ecosystems. This is a unique opportunity for active engagement with these industry leaders through intensive four-week team-based design challenges and presentations.

Required Texts:

Title: *Business Model Generation*
 Authors: Alexander Osterwalder and Yves Pigneur
 ISBN-13: 978-0470876411
 Publication Date: July 6, 2010
 Publisher: John Wiley & Sons

Title: *Value Proposition Design*
 Authors: Alexander Osterwalder, Yves Pigneur, and Gregory Bernarda
 ISBN-13: 978-1118968055

Publication Date: October 20, 2014
 Publisher: John Wiley & Sons

Recommended Texts:

Title: *The Internet of Things*
 Author: Samuel Greengard
 Publication Date: March 27, 2015
 ISBN-10/13: 0262527731, 978-0262527736
 Publisher: MIT Press (Essential Knowledge Series)

These books place IoT in a larger commercial, societal, and cultural context:

Title: *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*
 Authors: Erik Brynjolfsson, Andrew McAfee
 Publication Date: January 25, 2016
 ISBN-10/13: 0393350649, 978-0393350647
 Publisher: W.W. Norton

Title: *The Silent Intelligence: The Internet of Things*
 Authors: Daniel Kellmerit, Daniel Obodovski
 Publication Date: September 20, 2013
 ISBN-10/13: 0989973700, 978-0989973700
 Publisher: DnD Ventures

The above resources are on reserve at the IUPUI University Library. Additional readings and pointers to resources may be provided to serve as guidance for students to complete deliverables within the design challenge process.

Required technical/software skills:

Any software-based prototyping tools and technologies typical of the HMI/D process that effectively communicate, demonstrate, and permit the evaluation of design concepts to the appropriate audience.

Teaching and Learning Methods

During this class, students will:

- Conduct in-depth industry-specific research and analysis and prepare written reports.
- Participate in class discussions, including a substantive critical dialog with guest lecturers.
- Attend and actively participate in class-wide project design critiques.
- Through a series of small team-based design projects, demonstrate mastery of creative problem-solving techniques, including design research, synthesis and ideation, and prototype development and evaluation on a broad systems-level scale.
- Complete project assignments meeting the criteria set by the challenge sponsor, including technical viability, business and financial feasibility, and end-user desirability.

- Present the completed project assignments using persuasive visual and oral communication techniques within the allotted time.

Learning Outcomes:

| Upon completion of this course, the student will | RBT* | PUL | Assessment |
|--|------|-----|--|
| 1. Devise opportunities for innovation and growth within large-scale connected products, services, and systems by applying HCI/design research methods. | 6 | 2 | Reports Presentations and Design Critiques |
| 2. Synthesize these opportunities by employing design ideation techniques and translate them into system-level design concepts and prototypes. | 6 | 2 | Presentations and Design Critiques |
| 3. Evaluate conceptual prototypes against a broad set of business requirements. | 5 | 2 | Presentations and Design Critiques |
| 4. Review appropriate literature to ascertain state-of-the-art IoT interfaces and opportunities for future research and development in IoT interface design. | 5 | 1C | Reports and Presentations |
| 5. Communicate effectively on wide-scale business solutions to the spectrum of stakeholders. | 6 | 1A | Reports and Presentations |

*Rev. Bloom's Taxonomy: 1. Remembering; 2. Understanding; 3. Applying; 4. Analyzing; 5. Evaluating; 6. Creating

Principles of Undergraduate Learning (PUL)

Learning outcomes are assessed in the following areas:

- 1A. Core communication: written, oral and visual skills** *Some emphasis*
- 1B. Core communication: quantitative skills
- 1C. Core communication: information resources skills** *Moderate emphasis*
- 2. Critical thinking** *Major emphasis*
- 3. Integration and application of knowledge
- 4. Intellectual depth, breadth, and adaptiveness
- 5. Understanding society and culture
- 6. Values and ethics

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 four 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.

Exams/quizzes: None

Reports: Each student will prepare a research report of 3 to 5 pages, one week ahead of the scheduled lecturer's presentation. Each report must cover the specified company's business fundamentals, including their current product and service offer and related HMI strategy, and a SWOT (strengths, weaknesses, opportunities and threats) analysis. Combined, these three reports (one per lecturer) will make up 15% of the student's grade.

Team-based Design Challenges: each of the three design challenges will be performed by a three-person team, covering three weeklong development phases and a final, formal business presentation to the lecturer/client.

- **Research, Analysis and Synthesis Phase:** the results of this phase of the Design Challenge will be presented through a combination of written, visual, and verbal communications, demonstrating an understanding of the underlying problem statement and associated opportunities, along with critical insights that will lead to the Concept Design and Development phase of the design challenge.
- **Concept Design and Development Phase:** the team will be responsible for creating system-wide HMI strategies and conceptual design solutions within the context of the Lecturer's business environment. These concepts will be evaluated based on their

creativity and effectiveness within business constraints, and the team’s ability—through the appropriate prototyping tools—to clearly articulate and demonstrate their intent.

- **Concept Refinement and Final Design Solution Phase:** the team will finalize the overall HMI design system and related hardware/software concepts, and demonstrated using the appropriate prototyping tools. The final design solution will be evaluated on the innovative way they address technical viability, financial feasibility, and system usability.
- **Presentation to Industry Client:** the team will be evaluated on the overall presentation of the solution to the client, including organization and structure, clarity and cohesiveness of thought, richness of visual, verbal and written skills, persuasive delivery, and presentation timing.

There are three design challenge projects ×three-person teams with new teams assembled for each project. Thus, students are rotated to a new team for each new project. Students fill three distinct roles on each team: *Product manager*, *design manager*, and *operations manager*. Each student will perform each role once over the course of the semester. The instructor will assess the individual’s results performing each task.

Each design challenge represents 25% of the student’s grade (15% individual contribution; 10% group contribution), 75% when combined.

Participation: each student will be assessed on their active participation in the internal Design Critiques and their interaction with the Lecturer at both the initial presentation and the final presentation. Their participation will be evaluated on the frequency of the interaction and the intellectual depth and relevance of the interactions. Attendance and participation represent 10% of the student’s grade.

Importance of professional oral, written, and visual communication skill: In this graduate class, it is important that students demonstrate effective communication skills, presenting their deliverables with a high degree of clarity, brevity, and persuasion.

WEEKLY SCHEDULE

In conjunction with the summary *Activities*, *Assignments* and *Deliverables* listed below, additional reading and/or pointers to resources may be provided by the instructor to serve as guidance for students to complete that particular deliverable.

| Date | Class Topic/Activity and Assignment | Deliverable | Percentage |
|--------|--|---|--------------|
| Week 1 | Activity: Class introduction and course management. Assignment 1: Research IoT Industry Vertical #1 and form the teams | | |
| Week 2 | Activity: Attend Industry Lecture #1 Assignment 2: Research, analyze and synthesize a system-wide design framework including critical HMI touchpoints | Assignment 1 due: 3-5 page industry research paper Lecture Q&A | 5% 3% |

| | | | |
|---------|--|--|--------------|
| Week 3 | Activity: Design Challenge #1 Research & Synthesis Phase Assignment 3: identify key HMI touchpoints and create system-level design concepts | Assignment 2 due: Present research conclusions and synthesized finding to class | 5% |
| Week 4 | Activity: Design Challenge #1 Concepts Development Phase Assignment 4: finalize system-wide design concept and HMI design touchpoints, addressing technical feasibility, financial viability, and overall usability | Assignment 3 due: Presentation of overall system design and HMI concepts to the class | 5% |
| Week 5 | Activity: Design Challenge #1 Final Concept Development Phase Assignment 5: prepare final presentation for industry lecturer/client | Assignment 4 due: Internal presentation of final design solution | 10% |
| Week 6 | Design Challenge #1 Final Client Presentation Assignment 6: Research IoT Industry Vertical #2 and form teams | Assignment 5 due: formal external client presentation to lecturer | 5% |
| Week 7 | Activity: Attend Industry Lecture #2 Assignment 7: Research, analyze and synthesize a system-wide design framework including critical HMI touchpoints | Assignment 6 due: 3-5 page industry research paper Lecturer Q&A | 5% 3% |
| Week 8 | Activity: Design Challenge #2 Research & Synthesis Phase Assignment 8: identify key HMI touchpoints and create system-level design concepts | Assignment 7 due: Present research conclusions and synthesized finding to class | 5% |
| Week 9 | Activity: Design Challenge #2 Concepts Development Phase Assignment 9: finalize system-wide design concept and HMI design touchpoints, addressing technical feasibility, financial viability, and overall usability | Assignment 8 due: Presentation of overall system design and HMI concepts to class | 5% |
| Week 10 | Design Challenge #2 Final Concept Development Phase Assignment 10: prepare final presentation for industry lecturer/client | Assignment 9 due: Internal presentation of final design solution and 3-5 page paper describing the overall system design and business and user benefits | 10% |
| Week 11 | Design Challenge #2 Final Client Presentation Assignment 11: Research IoT Industry Vertical #3 and form teams | Assignment 10 due: Formal external client presentation to lecturer | 5% |

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|---------|---|---|--------------|
| Week 12 | Activity: Attend Industry Lecture #3 Assignment 12: Research, analyze and synthesize a system-wide design framework including critical HMI touchpoints | Assignment 11 due: 3-5 page industry research paper Lecture Q&A | 5% 3% |
| Week 13 | Activity: Design Challenge #3 Research & Synthesis Phase Assignment 13: identify key HMI touchpoints and create system-level design concepts | Assignment 12 due: Present research conclusions and synthesized finding to class | 5% |
| Week 14 | Activity: Design Challenge #3 Concepts Development Phase Assignment 14: finalize system-wide design concept and HMI design touchpoints, addressing technical feasibility, financial viability, and overall usability | Assignment 13 due: Presentation of overall system design and HMI concepts to class | 5% |
| Week 15 | Design Challenge #3 Final Concept Development Phase Assignment 15: prepare final presentation for industry lecturer/client | Assignment 14 due: Internal presentation of final design solution and 3-5 page paper describing the overall system design and business and user benefits | 10% |
| Week 16 | Design Challenge #3 Final Client Presentation | Assignment 15 due: Formal external client presentation to lecturer | 5% |

Grading Scale:

| | | |
|----|----------|--|
| A+ | 100% | Professional level work, showing highest level of achievement |
| A | 93–99% | Extraordinarily high achievement, quality of work; shows command of the subject matter |
| A– | 90–92% | Excellent and thorough knowledge of the subject matter |
| B+ | 87–89% | Above average understanding of material and quality of work |
| B | 83–86% | Mastery and fulfillment of all course requirements; good, acceptable work |
| B– | 80–82% | Satisfactory quality of work |
| C+ | 77–79% | Modestly acceptable performance and quality of work |
| C | 73–76% | Minimally acceptable performance and quality of work |
| C– | 70–72% | Unacceptable work (Core course must be repeated for credit) |
| D+ | 67–69% | Unacceptable work (Course must be repeated for credit) |
| D | 63–66% | Unacceptable work |
| D– | 60–62% | Unacceptable work |
| F | Below 60 | Unacceptable work |

No credits toward major, minor, or certificate requirements are granted for a grade below C. No credits toward general education or elective requirements are granted for a grade below C-.

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 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 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:** Students must 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, the student must 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 occurs after the full refund period, and a student who has been administratively withdrawn is ineligible for a tuition refund.
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, web surfing, and posting to social media 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 at 274-2548 or 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 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 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. In small sections, demographic information should be left blank, if it could be used to identify the student.
6. **Disabilities policy:** All qualified students enrolled in this course are entitled to reasonable accommodations for a disability. Notify the instructor during the first week of class of accommodations needed. Students requiring accommodations 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). For more information visit <http://aes.iupui.edu>.
7. **Email:** Indiana University uses your IU email account as an official means of communication, and students should check it daily. 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:** Know what to do in an emergency so that you can protect yourself and others. For more information, visit the emergency management website at <http://protect.iu.edu/emergency>.
9. **IUPUI course policies:** Several campus policies governing IUPUI courses may be found at the following link: http://registrar.iupui.edu/course_policies.html
10. **No class attendance without enrollment.** Only those who are officially enrolled in this course may attend class unless 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 assists students with personal, financial, and academic issues. The Student Advocate is in the Campus Center, Suite 350, and may also be contacted at 317 274-4431 or 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.