INFO B408
Mobile Health Information Systems

Department of BioHealth Informatics – Health Informatics
Indiana University School of Informatics and Computing, Indianapolis
Fall 2015

Section No.: Credit Hours: 3 credit hours
First Class: 
Instructor: Saptarshi Purkayastha, Visiting Assistant Professor
Office Hours: by Appointment
Office: WK 119, Walker Plaza Building
719 Indiana Avenue, Indianapolis, IN 46202
Phone: (317) 274-0439 (Office)
Email: saptpurk@iupui.edu
The instructor will respond to emails within two IU working days, which excludes weekends and holidays.

COURSE DESCRIPTION
This course introduces the design, evaluation, and use of mobile devices, such as sensors, smartphones, and wearables, in healthcare settings. Students examine mobile healthcare applications in data collection, supply chain management, point-of-care support, and health information dissemination. Challenges of scalability, sustainability, interoperability, security, and privacy are explored.

Additional Information: The course involves the use of mobile application development frameworks including Android SDK (Java) and PhoneGap (HTML, JS, CSS). Some basic knowledge of Java tools and HTML, CSS, and JS is expected, but we will do a refresher as part of the course.

Required Texts:
Title: Building Android Apps with HTML, CSS, and JavaScript
Author(s): Jonathan Stark
Edition: 2010
Publisher: O’Reilly Media
ISBN: 978-1-449-38326-8

Title: Mobile Design Pattern Gallery: UI Patterns for Mobile Applications
Author(s): Theresa Neil
Publisher: O’Reilly Media

Title: Wireless health: Remaking of medicine by pervasive technologies
Author(s): Mehran Mehregany
Publisher: AuthorHouse (Bloomington, IN)
ASIN: B00QWOI14U

Additional Readings:
Title: Beginning Responsive Web Design with HTML5 and CSS3
Author(s): Jonathan Fielding
Publisher: APress

Software used:
- Netbeans IDE
- NodeJS, Linux server, Apache
- Web browser (Firefox/Chrome) to access hosted OpenMRS
- Android DevStudio
Learning Outcomes:

Upon completion of this course, students will

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>RBT</th>
<th>PUL</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Function as an effective team member, including working cooperatively with</td>
<td>3</td>
<td>5</td>
<td>Labs, Projects,</td>
</tr>
<tr>
<td>diverse group members</td>
<td></td>
<td></td>
<td>Assignments</td>
</tr>
<tr>
<td>2. Initiate, manage, and execute an IT project</td>
<td>3</td>
<td>2</td>
<td>Projects</td>
</tr>
<tr>
<td>3. Articulate legal and ethical issues when using the creative work of</td>
<td>2</td>
<td>6</td>
<td>Assignments, Projects</td>
</tr>
<tr>
<td>others; respect the intellectual property of others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Deploy IT resources in the context of healthcare</td>
<td>3</td>
<td>4</td>
<td>Quizzes, Labs,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Projects</td>
</tr>
<tr>
<td>5. Synthesize, analyze, and conceptualize information and ideas from multiple</td>
<td>4-6</td>
<td>2</td>
<td>Quizzes, Assignments</td>
</tr>
<tr>
<td>sources and perspectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Use technology for data collection, storage, analysis, and reporting of</td>
<td>3, 4</td>
<td>3</td>
<td>Quizzes</td>
</tr>
<tr>
<td>information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Assess systems capabilities to meet regulatory requirements</td>
<td>5</td>
<td>6</td>
<td>Assignments, Projects</td>
</tr>
<tr>
<td>8. Develop intranet and Internet applications</td>
<td>6</td>
<td>1B</td>
<td>Projects, Class work</td>
</tr>
<tr>
<td>9. Create the electronic structure of health data to meet a variety of end-user</td>
<td>6</td>
<td>3</td>
<td>Projects</td>
</tr>
<tr>
<td>needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Understand and apply major societal trends affecting the development and</td>
<td>2, 3</td>
<td>3, 4</td>
<td>Quizzes, Class work</td>
</tr>
<tr>
<td>deployment of modern day IT, such as access, privacy, intellectual property,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>security, and others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Apply fundamental concepts and skills in the development of software</td>
<td>3, 6</td>
<td>1B</td>
<td>Assignments, Projects</td>
</tr>
<tr>
<td>architectures and information systems</td>
<td></td>
<td></td>
<td>Quizzes</td>
</tr>
</tbody>
</table>

RBT: Revised Bloom’s Taxonomy; PUL: Principles of Undergraduate Learning

Principles of Undergraduate Learning (PUL):

Learning outcomes are assessed in the following areas:

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

*Some emphasis*

*Major emphasis*

*Moderate emphasis*
### Lecture topics:

<table>
<thead>
<tr>
<th>Course details</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative work</td>
<td>Course structure, collaboration tools for Projects, revision management, overview of wireless health, product services and business models</td>
</tr>
<tr>
<td>- github</td>
<td></td>
</tr>
<tr>
<td>- course introduction</td>
<td></td>
</tr>
<tr>
<td>- intro to mHealth</td>
<td></td>
</tr>
<tr>
<td>Introduction to mHealth</td>
<td>What is mHealth? What are the broad spectrum of tools and technologies that are covered in mHealth? How is it different from eHealth?</td>
</tr>
<tr>
<td>- the current healthcare system</td>
<td>What are regulations for mobile technology in health care? Where do devices and apps fit in healthcare?</td>
</tr>
<tr>
<td>- global health and mHealth</td>
<td></td>
</tr>
<tr>
<td>- policy and regulatory aspects</td>
<td></td>
</tr>
<tr>
<td>Pervasive technologies</td>
<td>Types of pervasive technologies, web and cloud services, use and reuse of components, wireless communication and standards. REST web services and using services from mobile apps</td>
</tr>
<tr>
<td>- microsystems</td>
<td></td>
</tr>
<tr>
<td>- wireless communication</td>
<td></td>
</tr>
<tr>
<td>- computing and information</td>
<td></td>
</tr>
<tr>
<td>- Social media and health</td>
<td></td>
</tr>
<tr>
<td>Wireless health design</td>
<td>Medical device design, designing for consumers, designing for clinicians, User-centered design, canonical action-research and participatory design.</td>
</tr>
<tr>
<td>- device design</td>
<td></td>
</tr>
<tr>
<td>- navigation</td>
<td></td>
</tr>
<tr>
<td>- forms, tables, tools, charts</td>
<td></td>
</tr>
<tr>
<td>- social patterns</td>
<td></td>
</tr>
<tr>
<td>- antipatterns</td>
<td></td>
</tr>
<tr>
<td>Web design for mobile</td>
<td>HTML, CSS, JavaScript basics. Fluid CSS, HTML 5 layouts, JavaScript frameworks, minification, obfuscation</td>
</tr>
<tr>
<td>- responsive web design</td>
<td></td>
</tr>
<tr>
<td>- fluid layout</td>
<td></td>
</tr>
<tr>
<td>- frameworks for responsive design</td>
<td></td>
</tr>
<tr>
<td>- mobile optimization</td>
<td></td>
</tr>
<tr>
<td>Components and modular design</td>
<td>Reusable web components, HTML imports, Polymer designer, web polyfills, cca tools, Phonegap and Apache Cordova</td>
</tr>
<tr>
<td>- Google polymer</td>
<td></td>
</tr>
<tr>
<td>- material design</td>
<td></td>
</tr>
<tr>
<td>- HTML to mobile apps</td>
<td></td>
</tr>
<tr>
<td>- mobile chrome apps</td>
<td></td>
</tr>
<tr>
<td>Web to mobile apps</td>
<td>Android emulator, device development, iOS development using Safari/WebKit, Universal Windows apps</td>
</tr>
<tr>
<td>- Web apps vs native apps</td>
<td></td>
</tr>
<tr>
<td>- Styling</td>
<td></td>
</tr>
<tr>
<td>- Animation</td>
<td></td>
</tr>
<tr>
<td>- App stores and app market</td>
<td></td>
</tr>
<tr>
<td>Web to mobile apps (2)</td>
<td>Location data and GPS coordinates. Healthcare and epidemiology data in apps. Indexed DB, SQLite and local storage of data. Synchronizing data between services and mobile devices</td>
</tr>
<tr>
<td>- Location services</td>
<td></td>
</tr>
<tr>
<td>- offline storage</td>
<td></td>
</tr>
<tr>
<td>- Cordova and apk</td>
<td></td>
</tr>
<tr>
<td>Health care integration</td>
<td>Offline patient data storage, patient search using mobile apps, aggregate data reporting using mobile apps, activity data reporting for patients, smartwatch, smart devices integration.</td>
</tr>
<tr>
<td>- Using health data from apps</td>
<td></td>
</tr>
<tr>
<td>- integrating EMR data from devices</td>
<td></td>
</tr>
<tr>
<td>- integrating EMR data from apps</td>
<td></td>
</tr>
</tbody>
</table>
GRADING CRITERIA/COURSE EVALUATION

Assessments                      Number | Points each | Total Points
---                              |--------|-------------|-------------
In-class Quizzes/Exam           5      | 40 points | 200 points
In-class reading and practice   10     | 25 points | 250 points
Assignments                     5      | 40 points | 200 points
Mid-term course project         1      | 150 points| 150 points
Final course project            1      | 200 points| 200 points

Total Points                     1000 Points

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–.

EXPECTATIONS, GUIDELINES, AND POLICIES

Attendance:

***If you are enrolled an online course this policy does not apply.***

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.

**Attendance Requirements** – In-class students should review the following attendance requirements for both 8 week and 16 week courses carefully:
- Students enrolled in an 8 week course may be absent one class period. The second absence will be considered unexcused unless it falls under one of the excused absences listed below.
- Students enrolled in a 16 week course may be absent two class periods. The third absence will be considered unexcused unless it falls under one of the excused absences listed below.

Each unexcused absence will result in a reduction of one full letter grade for the course.

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.

***If you feel that attendance as an in-class student will be a challenge please consider an online section of this course.***

The student needs to e-mail the instructor via Oncourse if s/he will not be attending class.

**Tardy Policy** –

***If you are enrolled in an online course this policy does not apply.***

A sign-in sheet will be provided at the start of each class. It is the student’s responsibility to sign his/her name on this sheet.
The Tardy Policy is structured as follows:

- Tardy >15 minutes = 1 Absence
- Tardy (1 – 15) minutes = 1 Tardy
- 3 Tardies = 1 Absence

Students should refer to the No Fault Attendance Policy regarding unexcused absences.

LATE WORK POLICY: late work will not be accepted unless there are clear and compelling extenuating circumstances.

Exenuating Circumstances: If you have extenuating circumstances that prevent you from completing coursework or participating in the class, please contact your instructor to make alternative arrangements.

The possibility of alternative arrangements is at the discretion of your instructor and/or administration. Active communication is the key to overcoming any hurdles you may encounter during the semester. It is your responsibility to inform your instructor (ahead of time, unless emergency circumstances prevent doing so) of extenuating circumstances that might prevent you from completing work by the assigned deadline. In those situations, your instructor will work with you to establish alternative deadlines without late penalty. Prior notification does not automatically result in granting alternative arrangements and/or a waiver of the late penalties.

Please note that evaluation of extenuating circumstances is at the discretion of your instructor and/or administration and documentation may be required for verification of the extenuating circumstance. Examples of extenuating circumstances may include but are not limited to: personal/family member hospitalization, childbirth or other medical emergencies, death in the family, weather/environmental evacuation due to fire/hurricane/tornado/earthquake/tsunami, or active military assignment where Internet connectivity is unavailable for an extended time period.

Computer-related issues and Internet connectivity issues are not considered extenuating circumstances.

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 ONCOURSE. 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. Please see late policy above.

**All assignments will be posted in ONCOURSE with a COMPLETION DUE DATE.** Assignments will not be opened for review nor will grades be posted until after each assignment due date. When you take a test using the ONCOURSE Original Test and Survey tool, it is a good idea to create a screenshot of your submitted test. This screenshot serves as additional proof that you completed and submitted your test in the event of ONCOURSE technical issues. If there is a dispute regarding an assessment (test) or assignment submitted after the assigned due date and time, the above method will be the only accepted proof that an assignment or assessment (test) was submitted.

Note: To avoid the loss of points for assignments and/or assessments (tests) submitted through ONCOURSE please read the following information carefully: All assignments submitted through the ONCOURSE “Assignment” tab automatically generate an e-mail notification. This notification is sent directly to your primary e-mail account. Students will be required to present a copy of this e-mail notification to the instructor if there is a dispute regarding an assignment submission. Therefore, it is highly recommended that students maintain a file, either electronic or on paper, for each assignment submission notification received. For your information, you cannot save your assignments/work via ONCOURSE Test and Survey tool and come back to it at a later time. Once an assignment has been submitted it will be graded as is, so be very careful that the assignment you submit is the version you want graded. Be sure you are submitting the correct, complete assignment.

**Distance Education and Online Etiquette**

When taking a course online, it is important to remember that an online classroom is still a classroom. Though the courses may be online, appropriate classroom behavior is still mandatory. Inappropriate discussion responses will not be tolerated and disciplinary action will be taken according to the guidelines outlined in the Code of Student Rights, Responsibilities and Conduct. Remember to maintain current anti-virus protection programs and avoid forwarding email attachments from outside sources that you are uncertain of. Instructor sections in ONCOURSE include syllabus, announcements, messages, resources, roster, grade book, tests and surveys.

**Changes Corrections and Omissions**

The instructor reserves the right to make changes as necessary to the syllabus and the class schedule. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes and nature of change(s) on ONCOURSE Announcements.

**Grading Information**
Students enrolled in the HIA Plan of Study must maintain a minimum grade of C in all courses. If a student fails to maintain a minimum grade of C the student must retake the course(s) in which a grade of C was not achieved. Students in the HIA program must maintain a minimum grade of C in all courses. If a student fails to maintain a minimum grade of C in a course(s), during the first semester in which a student fails to meet the minimum grade requirement h/she will be placed on Academic Probation retroactive to the semester in which the grade(s) was received. If a student fails to meet the minimum grade required of a C during any subsequent semester, the student will be placed on Academic Probation for a second time, retroactive to the semester in which the grade(s) was received and will be dismissed from the HIA program (see Academic Probation Policy – Professional Program). Faculty will update the ONCOURSE grade book at the beginning of each semester to reflect the HIA grading scale. You are responsible for keeping track of your own grades. **There are no extra credit assignments.** Please note + (plus) and – (minus) grades are not awarded in the HIA courses. There is also no rounding up of grades on individual assignments and final grades. The academic expectation is that grades recorded in the grade book should reflect the overall quality and depth of the student's knowledge and understanding of the assigned material.

**INSTRUCTOR’S GRADING CRITERIA/TIMETABLE**

All course material submitted on time will be graded within 7 days of their due date (the Sunday of the following unit). Approved late work will be graded within 5 days of the submission date.

**In-class Exams / Quizzes:**

For this course, quizzes are all small exams to test mastery of knowledge and skills, which are all based on the key points taught on the classes. These quizzes will help students remember those important points in the classes.

**In-class Reading and Practice:**

Each Part / Section in the textbooks is divided into Chapters that combine reading and hands-on, step-by-step work. Students are required to read the materials and complete the hands-on practice in class. These assignments are usually due at the end of each class session.

**Assignments:**

For this course, class assignments are based on the sub-topics in the classes. Class participation is to improve the ability of effective communication, and each class assignment is to help students think deeper and wider than in the classes. They will usually be assigned on Monday and due Monday of the following week right before the class.

**Course Projects:**

Two projects will be assigned throughout the semester. They are comprehensive projects. The midterm course project covers queries and the final course project requires students to design and implement a MySQL database along with query and database performance

**ASSIGNMENTS/PROJECTS**
Assignments and/or Projects require you to submit coursework via Oncourse. Coursework will be graded according to either the rubric below or assignment-specific rubrics found in the course. Assignments and/or Projects are due Sunday of their assigned unit unless otherwise specified by instructor. ALL ASSIGNMENTS AND/OR PROJECTS MUST BE SUBMITTED VIA ONCOURSE TO ENSURE CREDIT.

<table>
<thead>
<tr>
<th>Content Quality Initial Response</th>
<th>Inappropriate</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission does not relate to the topic.</td>
<td>Answers some question/topics, and most opinions and ideas are stated clearly.</td>
<td>Answers all questions, and opinions and ideas are stated clearly.</td>
<td>Answers all questions with opinions and ideas creatively and clearly using text and outside references.</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>Does not cite references and/or does not include required number of resources.</td>
<td>Cites source material but may not be accurately referenced. Does not include the required number of resources.</td>
<td>Source material cited with rare errors. All sources referenced accurately. Contains the required amount of resources.</td>
<td>Source material cited without errors. All sources are referenced accurately. Exceeds the required number of resources.</td>
</tr>
<tr>
<td>APA Format</td>
<td>Major errors and/or no APA format used.</td>
<td>Minor errors with APA format.</td>
<td>Rare errors with APA format.</td>
<td>No errors with APA format.</td>
</tr>
<tr>
<td>Length</td>
<td>Submission does not meet length requirements.</td>
<td>N/A</td>
<td>N/A</td>
<td>Submission meets the length requirements.</td>
</tr>
</tbody>
</table>

**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. **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.

2. **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](http://registrar.iupui.edu/course_policies.html)

3. **Classroom 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.

4. **Bringing children to class**: To ensure an effective learning environment, children are not permitted to attend class with their parents, guardians, or childcare providers.

5. **Course Evaluation Policy**: Course evaluations provide vital information for improving the quality of courses and programs. Students are required to complete one course and instructor evaluation for each section in which they are enrolled at the School of Informatics and Computing. This requirement has three exceptions: (a) The student has withdrawn from the course; (b) only one student is enrolled in the section (in which case anonymity is impossible); 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/](https://soic.iupui.edu/app/course-eval/). Course evaluations are 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. A course evaluation must close before the grade for that course can be released. To ensure students have had ample opportunity to complete the evaluation, an uncompleted course evaluation could delay the release of the grade for up to a week.

6. **Communication**: The instructor should respond to emails within 48 hours, excluding weekends and holidays, and announce periods of extended absence in advance. The instructor should provide weekly office hours or accept appointments for face-to-face, telephone, or teleconferenced meetings.

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. **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](http://aes.iupui.edu) for more information.

9. **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.

10. **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](http://protect.iu.edu/emergency)

11. **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](http://studentaffairs.iupui.edu/advocate).

12. **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/](http://life.iupui.edu/caps/).

**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.