Data Organization and Representation
Indiana University School of Informatics and Computing
Indianapolis
Fall 2021

Section Number: 38290
Credit Hours: 3
Instructor: Rachel Erpelding
Email: rabehnke@iu.edu (use Canvas inbox for course matters)
Prerequisites: None
Instruction mode: Online, asynchronous

COURSE DESCRIPTION
This course introduces approaches for organizing and representing data and information resources. Students learn the principles of data organization, documentation, description, and classification devised to provide access to these resources and methods to evaluate and improve them for future retrieval and reuse.

EXTENDED COURSE DESCRIPTION
The organization and representation of information are vital to understand how information and data are structured. As the value of data has become more important to society, the need to understand how these data are structured has become more imperative. In this course, students will gain an understanding of the key approaches and structures to organize and represent information and data.

This course is a required course for the Applied Information Science Minor and Applied Data and Information Science Major curriculum.

Required Readings/Resources
• None, course readings will be provided
**Required Hardware/Software**

**Hardware**
A reliable computer running Windows, Mac OS, or Linux operating system. Please visit [http://informatics.iupui.edu/technology/laptop](http://informatics.iupui.edu/technology/laptop) for information on the Laptop Initiative for Informatics majors.

For PC users, you need to have the most recent version of Firefox or Chrome. For Mac users, you need to have the most recent version of Safari, Firefox, or Chrome.

To successfully complete this course, students must:

- Have adequate computing skills, including but not limited to the use of Microsoft Office suite or equivalent to process, save, and retrieve documents.
- Learn how to submit your assignments using Canvas.

**Software**
You have three sources for software: IUware, IUanyWare, Office 365

- **IUware** ([iuware.iu.edu/](http://iuware.iu.edu/)) allows students, faculty, and staff to download software at no charge. See [What is IUware?](kb.iu.edu/d/agze)
- **IUanyWare** ([uits.iu.edu/ianyware](uits.iu.edu/ianyware)) uses a web browser or mobile app to run certain IUlicensed software applications without your needing to install them on your device. See [What is IUanyWare](kb.iu.edu/d/bbbr). Note: You will be asked to download and install Citrix Receiver the first time you use the full service.
- **Office 365** ([uits.iu.edu/office365](uits.iu.edu/office365)) is a subscription-based service free to all IU currently enrolled students that provides multiple options for accessing the newest versions of Microsoft Office. See [About Microsoft Office 365 at IU](https://kb.iu.edu/d/bexq)

For more details, see [How to get university-licensed software at IU?](https://kb.iu.edu/d/aclo)

Canvas works best in the most recent version of Edge, Chrome, Firefox, or Safari browsers. Canvas does not support Internet Explorer.

**Technology Support**

For Canvas questions please see the "Help" tool on the left side of every page and check the [UITS Knowledge Base](https://kb.iu.edu) (KB) for more information (type “Canvas” in the KB search box for a full list of Canvas-related topics).

If you have questions about or issues with any of the technology used in this course please contact the University Information Technology Services (UITS) support team. You can contact the support team in the following ways:

- Call 317-274-4357
- Email [ithelp@iu.edu](mailto:ithelp@iu.edu)
- Live Chat
- If you are on campus, you can walk in at ICTC 129
Netiquette

One thing to always keep in mind when taking an online course is that the others with which you interact throughout the semester - including your facilitators - are human beings and worthy of respect. The first rule of netiquette is to "remember the human" when you are communicating with us or with your peers. When everyone works together in a professional and collegial manner it creates a more positive experience for all.

The second rule is to "adhere to the same standards of behavior online that you follow in real life." It's not likely that you would yell at, mock, belittle, bully, or harass another student in (or outside of) a face-to-face class, so please don't do it here either. The feeling of anonymity that some people have when they are online can lead to those sorts of behaviors, but they are not acceptable here or in any other online class.

Please take a few minutes before we begin and review all the Core Rules of Netiquette.

Teaching and Learning Methods

Active learning (AL), project-based learning (PBL), and asynchronous use of Canvas.

ASSESSMENTS

Assessment Details

Each student should not only read the assigned material but also arrive at a competent understanding of it prior to assessment. These measures will be used to assess student-learning outcomes:

1. Introductory Homework (2%)
2. Quizzes (40%)
3. Online Discussion Participation (25%)
4. Data Organization and Representation Paper (13%)
5. Final Exam (20%)

Quizzes (40%)

Quizzes serves as tool for learning and assessment in this course, which is why it is collectively worth 40% percent of your total grade. This course requires you to deeply engage data concepts and practices, and these concepts and practices build on each other. It is imperative that you engage with each week’s quiz carefully and purposefully.

Structurally, the quizzes will be administered via Canvas and will be submitted through Canvas. Each quiz is worth 4 points each. Questions will range from simple true/false, multiple choice, matching, and short essays.

Online Discussion Participation (25%)

Throughout the semester, you will be exploring topics and readings through online discussion forums. You are expected to participate in the discussion forum by offering ideas, including your own thoughts as well as pulling from sources outside of the class readings, and interacting with your fellow classmates through the discussion forum. To participate in the online discussion, I will provide a prompt and/or question of what should be discussed.

Data Organization and Representation Paper (15%)

You will write a paper exploring one or more data organization and representation topics, to be assigned. APA style guidelines.
Final Exam (20%)
A final exam will be administered during finals week. This is a cumulative exam based on the course content for the semester. Students will demonstrate their understanding of concepts, terminology, and also the application of the topics covered throughout the course.

## Learning Outcomes

<table>
<thead>
<tr>
<th>Upon completion of this course, students will:</th>
<th>RBT*</th>
<th>PLUS**</th>
<th>PLOs***</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize distinctions between data, information, and knowledge.</td>
<td>4</td>
<td>P2.1,</td>
<td>A1, A2</td>
<td>Online Discussion Forum</td>
</tr>
<tr>
<td>Understand the basic principles and functions of representational structures such as taxonomy, ontology, thesauri, metadata, and folksonomy.</td>
<td>2</td>
<td>P2.1,</td>
<td>C1, C2,</td>
<td>Quiz, Online Discussion Forum</td>
</tr>
<tr>
<td></td>
<td>P2.3</td>
<td></td>
<td>C3</td>
<td></td>
</tr>
<tr>
<td>Compare and discriminate between various organization systems.</td>
<td>4</td>
<td>P2.1,</td>
<td>A4, C3</td>
<td>Quiz, Final Exam</td>
</tr>
<tr>
<td></td>
<td>P2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the basic principles of data organization including file name conventions, version control, and data documentation.</td>
<td>2</td>
<td>P2.1,</td>
<td>C2, C3</td>
<td>Quiz</td>
</tr>
<tr>
<td></td>
<td>P2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply the principles of consistency and uniformity to recognize the need for authorized terms for describing various types of data.</td>
<td>3</td>
<td>P2.1,</td>
<td>C2, C3</td>
<td>Quiz, Final Exam</td>
</tr>
<tr>
<td></td>
<td>P2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the need for data standards as well as metadata standards.</td>
<td>3</td>
<td>P2.1,</td>
<td>C2, C3,</td>
<td>Quiz, Paper</td>
</tr>
<tr>
<td></td>
<td>P2.3</td>
<td></td>
<td>E1, E2</td>
<td></td>
</tr>
<tr>
<td>Understand and effectively apply principles of representation and systems of organization to provide access to resources in a variety of information environments.</td>
<td>2, 3</td>
<td>P2.1,</td>
<td>C1, C2,</td>
<td>Quiz, Paper</td>
</tr>
<tr>
<td></td>
<td>P2.3, P3.1</td>
<td></td>
<td>C3, E1, E2</td>
<td></td>
</tr>
</tbody>
</table>

* RBT: Revised Bloom’s Taxonomy.
** PLUS: Profiles of Learning for Undergraduate Success
*** Applied Data and Information Science Program Learning Outcomes
Revised Bloom's Taxonomy (RBT)*

1. **Knowledge/Remembering**: The ability to recall or recognize specific information or data.

2. **Understanding**: Understanding the meaning of informational materials, translation, interpolation and interpretation of instructions and problems.

3. **Application**: The use of previously learned information in new and concrete situations to solve problems that have single or best answers.

4. **Analysis**: Breaks down information/concepts into smaller components. Each component is identified and understood as is the relationship of these components to the whole.

5. **Evaluation**: The ability to apply a criterion or set of standards to conclude a value judgment.

6. **Creation, Synthesis**: The ability to merge knowledge into creating a new meaning or structure including demonstrating how and why various diverse elements work together.

Profiles of Learning for Undergraduate Success (PLUS)**

- P2.1 Problem Solver – Thinks Critically
- P2.3 Problem Solver – Analyzes, Synthesizes, And Evaluates
- P3.1 Innovator – Creates/designs

ADIS Program Learning Outcomes***

<table>
<thead>
<tr>
<th>Applied Data and Information Science Learning Outcomes</th>
<th>Profiles of Learning of Undergraduate Success</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Data Literacy</strong></td>
<td></td>
</tr>
<tr>
<td>1. Distinguish between data, information, and knowledge.</td>
<td>P2.1 <strong>Problem Solver</strong> – Think critically</td>
</tr>
<tr>
<td></td>
<td>P2.3 <strong>Problem Solver</strong> – Analyzes, synthesizes, and evaluates</td>
</tr>
<tr>
<td>2. Analyze the value and key role data plays in society in providing opportunities to expand knowledge, to innovate, and to influence.</td>
<td>P4.4 <strong>Community Contributor</strong> – Anticipates consequences</td>
</tr>
<tr>
<td>3. Analyze datasets in context to determine data veracity including bias in data collection or representation.</td>
<td>P2.3 <strong>Problem Solver</strong> – Analyzes, synthesizes, and evaluates</td>
</tr>
<tr>
<td>4. Assess values with respect to the use of data technologies.</td>
<td>P4.3 <strong>Community Contributor</strong> – Behaves Ethically</td>
</tr>
<tr>
<td></td>
<td>P4.4 <strong>Community Contributor</strong> – Anticipates consequences</td>
</tr>
</tbody>
</table>

| **B. Data Science**                                   |                                             |
| 1. Organize, visualize, and analyze large, complex datasets using descriptive statistics and graphs to make decisions. | P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates |
|                                                       | P3.2 **Innovator** – Creates/designs |
| 2. Apply inferential statistics, predictive analytics, and data mining to informatics-related fields. | P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates |
|                                                       | P3.2 **Innovator** – Creates/designs |
3. Assess the purpose, benefits, and limitations of visualizations as a human-centered data analysis methodology.  
   P3.1 **Innovator** – Investigates  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates*

4. Conceptualize and design effective visualizations for a variety of data types and analytical tasks.  
   P3.1 **Innovator** – Creates/designs  
   P1.4 **Communicator** – Conveys ideas effectively

5. Identify, assess, and select appropriately among data analytics methods and models for solving real-world problems, weighing their advantages and disadvantages.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates  
   P3.1 **Innovator** – Investigates

6. Understand data science concepts, techniques, and tools to support big data analytics.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates  
   P2.1 **Problem Solver** – Thinks critically

   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates

8. Explore, transform, and visualize large, complex datasets with graphs in R.  
   P3.1 **Innovator** – Creates/designs

9. Solve real-world problems by adapting and applying statistical learning methods to large, complex datasets.  
   P3.1 **Innovator** – Investigates  
   P3.4 **Innovator** – Makes decisions

10. Identify, assess, and select among statistical learning methods and models for solving a particular real-world problem, weighing their advantages and disadvantages.  
    P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates

11. Write programs to perform data analytics on large, complex datasets in R.  
    P3.1 **Innovator** – Creates/designs  
    P2.4 **Problem Solver** – Perseveres

12. Analyze data from case studies in informatics related fields.  
    P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates

**C. Information Science**

1. Demonstrate an understanding of the data lifecycle, including data curation, stewardship, and long-term preservation.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates  
   P2.1 **Problem Solver** – Thinks critically*

2. Apply the principles of consistency and uniformity to recognize the need for authorized terms for describing various types of data.  
   P3.1 **Innovator** – Creates/designs*  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates**

3. Understand the principles of data organization including file name conventions, version control, and data documentation.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates**  
   P2.1 **Problem Solver** – Thinks critically**

4. Understand the characteristics of various data types generated and used by a variety of disciplines, subdisciplines, research communities, and government organizations.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates  
   P2.1 **Problem Solver** – Thinks critically

5. Understand critical issues associated with the storage, backup, and security of data.  
   P2.3 **Problem Solver** – Analyzes, synthesizes, and evaluates  
   P2.1 **Problem Solver** – Thinks critically*
6. Analyze data policies to compare possible outcomes.

<table>
<thead>
<tr>
<th>Data Ethics</th>
<th>Problem Solver</th>
<th>Community Contributor</th>
<th>Other Topics</th>
<th>Other Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understand the relation between data, ethics, and society.</td>
<td>P2.3 Problem Solver – Analyzes, synthesizes, and evaluates</td>
<td>P4.3 Community Contributor – Behave ethically</td>
<td>P3.1 Innovator – Creates/designs</td>
<td>P2.3 Problem Solver – Analyzes, synthesizes, and evaluates</td>
</tr>
<tr>
<td>2. Identify and understand the social, political, ethical, and legal aspects of data creation, access, ownership, service, and communication.</td>
<td>P2.1 Problem Solver – Thinks critically</td>
<td>P4.4 Community Contributor – Anticipates consequences</td>
<td>P1.4 Communicator – Conveys ideas effectively</td>
<td>P2.1 Problem Solver – Thinks critically</td>
</tr>
<tr>
<td>3. Develop substantive arguments using ethical reasoning to suggest improvements to data-driven systems and practices.</td>
<td>P4.3 Community Contributor – Behave ethically</td>
<td>P4.4 Community Contributor – Behave ethically</td>
<td>P2.3 Problem Solver – Analyzes, synthesizes, and evaluates</td>
<td>P2.1 Problem Solver – Thinks critically</td>
</tr>
<tr>
<td>4. Differentiate between surveillance systems that promote and inhibit values.</td>
<td>P4.3 Community Contributor – Behave ethically</td>
<td>P4.4 Community Contributor – Anticipates consequences</td>
<td>P2.3 Problem Solver – Analyzes, synthesizes, and evaluates</td>
<td>P2.1 Problem Solver – Thinks critically</td>
</tr>
</tbody>
</table>

D. Data Ethics

E. Other Topics

Course Schedule

Structurally, this course covers sixteen weeks. Fourteen of those weeks included substantive content; three weeks account for the intro to the course, Thanksgiving Week, and Finals Week. The semester has been broken down into three thematic units with their own interconnected modules. There is a new module each week. Each module iteratively builds on those that came before it.

Each week begins on Monday at 12:00 AM and ends on the following Sunday at 11:59 PM. Assignments are due Sunday at 11:59 PM.

<table>
<thead>
<tr>
<th>Module</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Course Module</td>
<td>Monday, August 23&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sunday, August 29&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Module 1</td>
<td>Monday, August 30&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sunday, September 5&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Module</td>
<td>Start Date</td>
<td>End Date</td>
</tr>
<tr>
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</tr>
<tr>
<td>Module 2</td>
<td>Tuesday, September 7th</td>
<td>Sunday, September 12th</td>
</tr>
<tr>
<td></td>
<td><em>(Monday, September 6th is Labor Day)</em></td>
<td></td>
</tr>
<tr>
<td>Module 3</td>
<td>Monday, September 13th</td>
<td>Sunday, September 19th</td>
</tr>
<tr>
<td>Module 4</td>
<td>Monday, September 20th</td>
<td>Sunday, September 26th</td>
</tr>
<tr>
<td>Module 5</td>
<td>Monday, September 27th</td>
<td>Sunday, October 3rd</td>
</tr>
<tr>
<td>Module 6</td>
<td>Monday, October 4th</td>
<td>Sunday, October 10th</td>
</tr>
<tr>
<td>Module 7</td>
<td>Monday, October 11th</td>
<td>Sunday, October 17th</td>
</tr>
<tr>
<td>Module 8</td>
<td>Monday, October 18th</td>
<td>Sunday, October 24th</td>
</tr>
<tr>
<td>Module 9</td>
<td>Monday, October 25th</td>
<td>Sunday, October 31st</td>
</tr>
<tr>
<td>Module 10</td>
<td>Monday, November 1st</td>
<td>Sunday, November 7th</td>
</tr>
<tr>
<td>Module 11</td>
<td>Monday, November 8th</td>
<td>Sunday, November 14th</td>
</tr>
<tr>
<td>Module 12</td>
<td>Monday, November 15th</td>
<td>Sunday, November 21st</td>
</tr>
<tr>
<td>Module 13: Thanksgiving Break (No Class)</td>
<td>Monday, November 22nd</td>
<td>Sunday, November 28th</td>
</tr>
<tr>
<td>Module 14</td>
<td>Monday, November 29th</td>
<td>Sunday, December 5th</td>
</tr>
<tr>
<td>Module 15</td>
<td>Monday, December 6th</td>
<td>Sunday, December 12th</td>
</tr>
<tr>
<td>Finals Week</td>
<td></td>
<td>Final Due December 16th at 11:59pm</td>
</tr>
</tbody>
</table>

EXPECTATIONS, GUIDELINES, AND POLICIES

**Deliverables**

You are responsible for completing each deliverable (e.g., task, final project) by its deadline and submitting it by the specified method. Deadlines and submission instructions are outlined in the syllabus or in supplementary documents accessible through Canvas. 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.
Your Questions, Concerns, and Comments

Please do not hesitate to contact the instructor directly via Canvas mail with any questions. If needed, the instructor will also use Canvas Announcements to notify the entire group (e.g., syllabus change, instructor availability, etc.).

If you have problems accessing Canvas, please contact the University Information Technology Services (UIITS) Support Center at uits.iupui.edu or 317-274-HELP. All course Announcements will be found in Canvas along with the course schedule, assignments, and other course documents.

Attendance

The course will be taught entirely online including web-based readings and resources, threaded discussions, plus online presentations and activities.

This course assumes that students can work independently. There are no required face-to-face meetings. There are no required synchronous online meetings. However, students are encouraged to e-mail or arrange an online chat with the instructor at any time.

A basic requirement of this course is that you will participate in all online activities and conscientiously complete all required course assignments. Students are expected to complete the assignments, quizzes, and projects on time, which is your attendance.

Incomplete

Incompletes are not automatically granted. You may arrange a grade of “I” or incomplete for a course with an instructor for special circumstances. Students need to have completed the majority of course work (75%+) at an acceptable level of achievement. You and the instructor must agree upon the terms for completing the course. Students who have multiple incompletes (2 or more) will be blocked from registering for additional LIS courses until there is only one (or zero) outstanding incomplete, or the student presents the department chair with a plan of action for completing all incompletes in a timely way.

Deadlines for the work for an incomplete to be finished are at the instructor’s discretion. The deadline can be no longer than 1 year from the end of the semester, but can be earlier if the instructor specifies that. Left unchanged, an Incomplete automatically becomes an F after one year. See: Student Central: Incompletes (studentcentral.iupui.edu/gradesprogress/incompletes.html)

GRADING SCALE

Grades will be assigned based on the IUPUI grading scale.

- A+ 97–100% Professional level work, showing highest level of achievement
- A 93–96.99% 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

No credits are granted for a grade below C.

APPLIED DATA AND INFORMATION SCIENCE PROGRAM OUTCOMES
The Applied Data and Information Science (ADIS) Program prepares students to for the data-driven workforce. Upon completion of the ADIS program, graduates are prepared to meet the ADIS program learning outcomes (https://soic.iupui.edu/undergraduate/degrees/data-infoscience/learning-outcomes/).

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 of Student Rights (studentcode.iu.edu/)

All students must also successfully complete How to Recognize Plagiarism: Tutorials and Tests (plagiarism.iu.edu).

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.

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:

      ✦ directly quoting another person’s actual words, whether oral or written;
      ✦ using another person’s ideas, opinions, or theories;
      ✦ paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
      ✦ borrowing facts, statistics, or illustrative material; or
      ✦ offering materials assembled or collected by others in the form of projects or collections without acknowledgment

   c. 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.

   d. 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.

e. **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 complete all required course activities. 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. Learn more at [IUPUI Administrative Withdrawal Policy](studentcentral.iupui.edu/register/administrative-withdrawal.html)

2. **Civility:** To maintain an effective and inclusive learning environment, it is important to be an attentive and respectful participant in all course exercises. 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 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 online courses, the instructor or teaching assistant should respond to emails within two Indiana University working days, which excludes weekends and holidays. The instructor should accept appointments for face-to-face, telephone, or teleconferenced meetings, and announce periods of extended absence in advance.

4. **Conferences:** To present research at an academic conference as speaker is commendable and aligns with the educational and research mission of the school and university. However, instructors can only provide accommodations for absences if a student is presenting work, such as a paper or poster, or is supported by a school or campus-level scholarship. The student should request from the instructor accommodation for an absence as soon as possible upon paper, poster, or scholarship acceptance. In the request for accommodation for absence, the student should provide supporting documentation of acceptance as well as confirmation from their mentor or campus sponsor that the presentation is to meet a research, educational, or diversity objective. Permission is granted at the discretion of the instructor. Students should not expect an exception for nonacademic conferences or conferences at which the student is not presenting as speaker. Travel arrangements should not be made until the student has received permission from the instructor.
5. **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 the CAPS website (iupui.edu/healthwellness/counseling-psychology/).

6. **Course evaluations:** Course evaluations provide vital information for improving the quality of courses and programs. Students are not required to complete a course or instructor evaluation for any section in which they are enrolled at the School of Informatics and Computing. Course evaluations are completed in Canvas (Course Questionnaire). 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.

7. **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. Students with learning disabilities for which accommodations are desired should contact the Adaptive Educational Services office on campus, and inform the instructor as soon as possible: Adaptive Educational Services (AES) (diversity.iupui.edu/offices/aes/index.html), or 317-274-3241.

8. **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.

9. **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 Protect IU (protect.iu.edu/emergency-planning/emergency-contact/iupui.html).

10. **University policies:** Numerous policies governing IU faculty and students may be found at University Policies (policies.iu.edu/categories/academic-faculty-students.html).

11. **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. See Register: Get ready to take classes (studentcentral.iupui.edu/register/index.html).

12. **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 You have the right to observe religious holidays (studentcentral.iupui.edu/calendars/holidays/index.html).

13. **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.

14. **Sexual misconduct:** IU does not tolerate sexual harassment or violence. For more information and resources, visit Stop Sexual Violence (stopsexualviolence.iu.edu/).

15. **Student advocate:** The Office of Student Advocacy and Support 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
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.