IST 440, Section 004: Technology Integration and Problem-Solving
Spring 2017 | Mon, Wed, & Fri 12:20-1:10pm | Room IST 202

INSTRUCTOR: Dr. Alison Murphy
amurphy@ist.psu.edu
(814) 814-8839
101K IST Building
Office Hours = Tuesdays 12-2pm or by appointment

TEACHING ASSISTANT (TA): To be determined

COURSE DESCRIPTION
This course is the undergraduate capstone for Information Sciences and Technology majors. Students will work collaboratively in teams of 4-6 students and select a real-world problem or scenario where information technology is part of the solution. The student teams will then walk through the systems development life cycle (SDLC) within the context of their real-world problem/scenario. During this course, students will experience the process of planning, analyzing, designing, and implementing their technical solution, in addition to sharpening their teamwork and communication skills.

COURSE OBJECTIVES
During this course, you will:

- Learn and use a variety of SDLC and project management tools to help you plan, analyze, design, and implement an IT solution.
- Work in a team to plan, analyze, design, and implement an IT solution.
- Communicate the project progress and solution in both written and verbal formats.
- Deliver an IT solution that addresses a real-world problem or issue.

COURSE STRUCTURE
There are four modules in this course, which will walk students through the SDLC framework:

1) Systems Planning
2) Systems Analysis
3) Systems Design
4) Systems Implementation

For each module, there is prep work, lectures, in-class activities, written assignments, presentations, and quizzes. The primary deliverable is the team project, which is completed over the course of the semester.

COURSE MATERIALS
There are no required textbooks for this course. All lecture powerpoints and readings/videos will be available on Canvas (the new course management system that replaced ANGEL).

Additions or changes to the topics and the assigned prep work may occur as we move through the course, so always reference the Calendar and Module tabs for the most recent assignments, due dates, prep work, and events. When a change is made to the calendar, the instructor will immediately notify students (in class and via email) and make the appropriate updates in Canvas.
**Optional Textbooks**: Material for the lectures will be based on the following optional texts:

**COURSE COMMUNICATION**
If students have questions about the course or assignments, they should only communicate with the instructor and TA through:
- PSU or Canvas email, or
- In-person discussions during class or office hours.

Do not use the “comments” function on Canvas assignments to ask the instructor or TAs any important questions or comments about that assignment, as they do not receive immediate notifications about these comments so they may not see your question/comment.

Any questions about grades will only be discussed in person.

**COURSE EVALUATION**
Throughout the semester, students can earn a total of **200 points**:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DELIVERABLE</th>
<th>POINTS</th>
<th>TOTAL POINTS</th>
<th>% OF FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Project</td>
<td>Project Preparation</td>
<td>10</td>
<td><strong>110</strong></td>
<td><strong>55%</strong></td>
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<tr>
<td></td>
<td>Team Contract</td>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>4 Progress Dashboards</td>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Mid-Semester Update</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final Report and Presentation</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 Team Evaluations (mid &amp; end)</td>
<td>10 pts each = 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quizzes</td>
<td>Module1-Planning Quiz</td>
<td>10</td>
<td><strong>40</strong></td>
<td><strong>20%</strong></td>
</tr>
<tr>
<td></td>
<td>Module2-Analysis Quiz</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Module3-Design Quiz</td>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Module4-Implementation Quiz</td>
<td>10</td>
<td></td>
<td></td>
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<tr>
<td>Professional Development</td>
<td>6 In-Class Activities</td>
<td>5 pts each = 30</td>
<td><strong>30</strong></td>
<td><strong>15%</strong></td>
</tr>
<tr>
<td>Class Engagement</td>
<td>Attendance</td>
<td>10</td>
<td><strong>20</strong></td>
<td><strong>10%</strong></td>
</tr>
<tr>
<td></td>
<td>Participation</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td><strong>200</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**CLASS POLICIES - THE SHORT VERSION:**
You will succeed in this class if you do the following:

- **Prepare and engage**: Do the prep work, come to class, and actively engage in discussions/activities
- **Meet deadlines**: Submit complete and comprehensive deliverables by the due dates
- **Be a team player**: Be the team member that everyone wants on their team
And...

- **Communicate with the instructor and your team:** If you have an issue that is preventing you from doing the previous bullet points, let the instructor and your team know so we can adjust expectations and help you better succeed within your circumstances.

**CLASS POLICIES - THE DETAILED VERSION:**

**Team Project:**
The semester project will consist of both individual and team-based deliverables. The instructor will post specific templates/rubrics for each of the deliverables on Canvas and will review them in class to clearly articulate the requirements and expectations for each deliverable.

**Quizzes:**
Quizzes will cover material presented during lectures and as part of the assigned preparations (readings/videos). All content for the quizzes can be found directly on the powerpoint slides; therefore, students are not required to take notes in class, but note-taking is encouraged if it helps facilitate learning.

There will be one quiz per module. Prior to the quiz, the instructor will distribute a study guide to students and hold a brief in-class review session.

All quizzes must be taken in-class on the date specified on the Canvas Calendar. Quizzes are individual assessments - Sharing answers with others or using external materials will constitute an academic integrity violation for all students involved.

If a student cannot be in class on the day of the quiz, it is the student’s responsibility to notify the instructor before the quiz day and arrange a time to make-up the quiz. If a student does not notify the instructor and does not take the quiz in-class, he/she will receive a zero for the quiz.

**Professional Development Activities:**
Throughout the semester there will be several assignments and in-class activities related to preparing students for their professional careers. Students must complete at least 6 of these assignments/activities.

The instructor will post specific instructions for each of the deliverables on Canvas and will review each assignment/activity in class to clearly articulate the requirements and expectations. If the assignment is an in-class activity, the student must be present in class to receive credit for that assignment.

**Attendance:**
Students are expected to be in class on time and stay throughout the entire class period.

Absences for illnesses or other unavoidable circumstances may be considered excused if students give the instructor notice in an email explaining the absence before the beginning of that class. Otherwise, the absence is considered unexcused and 1 point will be deducted from the student’s attendance grade for each unexcused absence.

Students are allowed a reasonable number of excused absences – up to 4 excused absences – unless otherwise discussed with the instructor. If students are unable to attend class, they are still responsible for information covered in class.

**Participation:**
Students are expected to be prepared and engaged with the class. To do this, students should:

- Complete all preparation work before class, including reviewing the assigned readings/videos
- Pay attention during class and do not be distracted by phones, computers, other work, etc.
- Participate in class discussions
- Actively engage in class activities and project work
Late Submissions:
To encourage good time management skills, late submissions will not be accepted for full credit. Students should note that Canvas dropboxes close at the deadline time specified for the assignment.

There are two stipulations to this policy:

1) **Extensions:** If a student cannot come to class or complete their deliverable due to illness or unavoidable circumstances, then the student must inform the instructor of the situation at least 1 day before the due date of the assignment. The instructor and student will then decide on an extended due date based on the student’s circumstance.

2) **10% deduction per day for 5 days:** If a student or team misses a due date, they can submit the assignment late within 5 days of the original due date. The student/team will receive a 10% deduction for each day that the assignment is late (e.g., 1 day is 10% deduction, 2 days is 20% deduction, etc.). If the dropbox is closed, the student/team can email the assignment to the instructor.

If the student does not have an extension and does not submit the assignment within 5 days, then he/she will receive a zero for the assignment.

Writing Guidelines:
Your writing matters when working in business. It directly reflects on the quality of yourself as a professional and on the integrity of your IT solution. Your written assignments should be formatted in a professional and consistent way, free of spelling and grammatical errors, and written in a standard business style. Assume that you are providing your written submission to a high-level executive.

**GRADING**
Grades are based on Penn State’s standard grading percentages:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93 and above (rounds up at 92.9)</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 92.9</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89.9</td>
</tr>
<tr>
<td>B</td>
<td>84 – 86.9</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 83.9</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79.9</td>
</tr>
<tr>
<td>C</td>
<td>70 – 76.9</td>
</tr>
<tr>
<td>D</td>
<td>60 – 69.9</td>
</tr>
<tr>
<td>F</td>
<td>59 and below</td>
</tr>
</tbody>
</table>

Point Disputes and Grade Changes:
Changes to assignment grades will not be given at the end of the semester.

If you have questions about why you did not receive full points for any graded deliverable, you must talk with the instructor within 2 weeks of the date that the grade is assigned to you in Canvas.

**UNIVERSITY POLICIES**
**Academic Integrity:** According to the Penn State Principles and University Code of Conduct: Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. In accordance with the University’s Code of Conduct, you must not engage in or tolerate academic dishonesty. This includes, but is not limited to cheating, plagiarism, fabrication of information or citations, facilitating acts of academic dishonesty by others, unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. Any
violation of academic integrity will be investigated, and where warranted, punitive action will be taken. For every incident when a penalty of any kind is assessed, a report must be filed. Please review the following training if you do not understand what constitutes plagiarism: http://ltl.psu.edu/plagiarism/student-tutorial/.

**NOTE:** Students are **not** permitted to post any graded assessment (quiz questions, in-class activities, homework assignments, project reports, etc.) to an online website that facilitates copying/cheating among students, such as Course Hero. Any evidence of posting graded assessments or using currently posted content to facilitate copying/cheating on graded assessments will constitute an Academic Integrity violation for all students involved.

**Nondiscrimination and Harassment:** The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, gender identity or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University.

You may direct inquiries to the Office of Multicultural Affairs, 332 Information Sciences and Technology Building, University Park, PA 16802; Tel 814-865-0077 or to the Office of Affirmative Action, 328 Boucke Building, University Park, PA 16802-5901; Tel 814-865-4700/V, 814-863-1150/TTY. For reference to the full policy: http://guru.psu.edu/policies/AD42.html.

**Sexual Harassment:** Sexual harassment of faculty, staff or students is prohibited and will not be tolerated at The Pennsylvania State University. It is the policy of the University to maintain an academic and work environment free of sexual harassment. Sexual harassment violates the dignity of individuals and impedes the realization of the University’s educational mission. The University is committed to preventing and eliminating sexual harassment of faculty, staff and students through education and by encouraging faculty, staff and students to report any concerns or complaints about sexual harassment. Prompt corrective measures will be taken to stop sexual harassment whenever and wherever it occurs.

**Accommodating Disabilities:** Penn State welcomes students with disabilities into the University’s educational programs. If you have a disability-related need for reasonable academic adjustments in this course, contact the Office for Disability Services (ODS) at 814-863-1807 (V/TTY). For further information regarding ODS, please visit the Office for Disability Services Web site at http://equity.psu.edu/ods/. In order to receive consideration for course accommodations, you must contact ODS and provide documentation (see the documentation guidelines at http://equity.psu.edu/ods/guidelines/documentation-guidelines). If the documentation supports the need for academic adjustments, ODS will provide a letter identifying appropriate academic adjustments. Please share this letter and discuss the adjustments with your instructor as early in the course as possible. You must contact ODS and request academic adjustment letters at the beginning of each semester.

**An Invitation to Students with Learning Disabilities:** It is Penn State’s policy to not discriminate against qualified students with documented disabilities in its educational programs. If you have a disability-related need for modifications in your testing or learning situation, you should notify your instructor during the first week of classes so that your needs can be accommodated. You will be asked to present documentation from the Office of Disability Services (located in 116 Boucke Building, 814-863-1807) that describes the nature of your disability and the recommended remedy. You may refer to the Nondiscrimination Policy in the Student Guide to University Policies and Rules.