Rensselaer

Course Syllabus

Course Title: Introduction to Information Technology and Web Science

Course number: ITWS 1100

Credit hours: 4 Credits

Semester/ year: Fall 2021

Meeting days: Mondays and Thursdays from 12:20 PM to 2:10 PM

Recitation Meeting Days: Thursdays

Section 01: 12:00 PM to 1:50 PM in Lally Hall Room 201

Section 02: 10:00AM to 11:50 AM in Lally Hall Room 201

LMS/Canvas: 2109_Intro to ITWS

Prerequisites or other requirements:

BS in Information Technology Core Required Course

No prerequisites

Instructor: Richard Plotka

Office location: Lally 208a

Telephone number: 516-527-9860

Office hours: In person and Online by appointment – meet.plotka.me

E-mail address: plotkr2@rpi.edu

Teaching Assistant:

TA office location: Online

TA Telephone number:

TA office hours: tbd

TA e-mail:

Course Description:

This course introduces students to the field of information technology and web science, the types of problems encountered in the field, and the approaches used to solve them. Through a series of activities and projects, students are introduced to topics such as web systems design, emerging web standards, database systems, security, and computer networking. Guest speakers highlight information technology practices in industry. Small groups of students work on a project during the semester and present their results at the end of the course.

Student Learning Outcomes:

1. **Students will be able to describe technologies important to the Information Technology Profession**
2. **Students will be able to describe major applications of computer science and web science such as entertainment, communications, enterprise systems, electronic health systems, security, e-commerce, and design.**
3. **Students will design a simple web-site.**
4. **Students will design a simple database.**
5. **Students will analyze business cases.**
6. **Students will plan, design, develop, and execute a Term Project.**

Course readings:

1. **There is no textbook for this course**
2. **Cases and other readings are available in a course pack to be purchased at Harvard Business School Press at the link provided on the LMS**
3. **Most of the weekly readings are available on the Internet or LMS. Links to these readings are noted in the detailed assignments posted on the course LMS website.**

Assignments:

1. **Weekly detailed assignments are generally posted on the course LMS website one week prior to their due date.**
2. **In class "labs" are assigned for many of the technology classes. These detailed "lab assignments" are posted on the course LMS website prior to their due date. These "labs" can generally be completed during the class session. If not completed during the specific class session, they must be submitted prior to the next class meeting.**
3. **Business Case discussions and write-ups are specified in the Course Calendar, will be explained in class and will be available on the LMS.**
4. **Quizzes/Exams will be given during the course as specified in the Course Calendar and in class.**

5. **The Term Project provides an opportunity for student groups to design and mock-up a web application. The application can serve any purpose, real or imagined, in the present or the future. Teams of three to four students will be randomly assigned to work together on the Project. The Teams will submit a Project Final Report and will present their Projects to the class.**

Course Calendar

Available on LMS

Grading criteria

Assignments from the "labs", project, and business cases are outlined in the Course Calendar. Specific detailed assignments will be posted on LMS. Each student must post their answers to the written assignments in the online discussion groups and written responses prior to the assigned class. Each assignment will be given a grade. The grades for homework, projects, business cases, labs, quizzes, term project, participation and final exam will be posted on LMS.

The quizzes will cover material from the readings, lectures, class discussions, labs, cases and projects. There will be quizzes during the semester as shown in the Course Calendar.

The mid-term assessment process will provide each student with feedback on their performance in the class based on labs, projects, business cases, participation, and the first quiz. The Early Warning System (EWS) function in the Student Information System will be used to further notify students who are experiencing academic difficulty at the middle of the term.

The student's final grade will be determined based on the following weighting:

Homework and Business Cases	**15%**
Labs	**15%**
Quizzes/Final	**40%**
Term Project	**20%**
Participation	**10%**

Course Grade Determination:	**Letter Grade**	**Numerical Average**
	A-, A	**90-100 %**
	B-, B, B+	**80-89 %**
	C-, C, C+	**70-79 %**
	D, D+	**60-69 %**
	F	**<60 %**

Attendance policy and Participation Grading:

A portion of your grade will be received through classroom participation, online discussion boards, labs, and the term project. Therefore, it is expected that you attend every class and participate in team meetings associated with the term project. A participation grade will be given for each individual for each quarter of the course.

A student may request an excused absence for health or career (job interviews) reasons by emailing the instructor prior to the beginning of that particular class.

Participation Grading on a 5 Point Scale: Quality is more important than quantity

> **0 – absence without an excuse**
> **1 – 2 in attendance, but not paying attention, e.g. sleeping, or doing email or Internet unrelated to class, and not apparently having done pre-class reading.**
> **3 – in attendance, paying attention, appear to have done the pre-class reading, but not otherwise contributing to the class, little or no contributions to online discussion boards**
> **4 – 5 in attendance, paying attention, having done the pre-class reading, and contributing to the class by answering questions, making thoughtful comments, engaging in the class discussion and significant contributions to online discussion boards and term project.**

NOTE: Classes are taught in-person. Bring your laptops to class.

Academic dishonesty

Integrity is an extremely important part of any person's character and behavior. This course expects the highest level of personal and academic integrity. Students may discuss labs and business case assignments with other students in the class, but each individual must research, write and submit their case assignments individually. Term Project assignments are done collectively by the Project Team and one submittal is made for the entire Team. In all assignments, citations must be done for all references including websites. Any breach of the academic integrity code listed in the Rensselaer Handbook will be considered grounds for failure in the course.

COVID-19 Policies

RPI is committed to the health and safety of all students. RPI will continue to monitor any new developments with COVID-19 and determine a course of action that will uphold the well-being of students while maintaining a quality educational experience.

Masks/Shields: We know from existing data that wearing a mask in public can help prevent the spread of COVID-19 in the community. Rensselaer Polytechnic Institute has determined that everyone will be required to wear a face mask in all public spaces, including classrooms. You MUST wear a mask appropriately (i.e., covering both your mouth and nose) in the building if you are attending class in person. Masks have been provided for students, instructors, and staff, and everyone is expected to wear one. Students who choose not to wear a mask may not attend class in person. This is to protect their health and safety as well as the health and safety of their classmates, instructor, and the university community. Anyone attending class in person without a mask will be asked to put one on or leave.

Instructors will end class if anyone present refuses to appropriately wear a mask for the duration of class. Students who refuse to wear masks appropriately or adhere to other stated requirements may face disciplinary action for Code of Conduct violations. Student who violate not wearing a mask will be reported to the Dean of Students and will be requested to leave a classroom of building and return to their living quarters. The Dean of Students will provide the appropriate sanctions for the students per the code of conduct signed by the students.

Traffic Flow and Social Distancing*: Students and faculty will respect the need for social distancing to the degree possible by the setting.* Please maintain six feet of space while walking into and out of classes and enter and exiting the building.

Faculty and students will move in and out of the classroom as per the appropriate instructions of the faculty/administration. They are expected to follow printed traffic flow statements posted in all rooms and buildings.

In-Class Seating: Faculty are asked to assure that students sit in the appropriate designated seating in the classroom, using social distancing. Students are not allow to move furniture or sit in seats not designated by the Institute.

Cleaning of Spaces: Students are encouraged to clean the surfaces of the chairs/tables/desks they occupy before they sit down and as they prepare to leave. Faculty should advise students clean with wipes or cloths their own personal before and after class.

Student Health: On a case-by-case basis, students may consult with Student Disability Resources for accommodations if they cannot wear a mask. Students requiring such accommodations may be advised to take advantage of and participate in the course through remote learning.

Students who are experiencing COVID-19 related symptoms should not attend class in person and are encouraged to contact a health care provider. *Students who are ill, under quarantine for COVID-19, or suspect they are ill will report that to Student Life. Student Life will verify and notify all faculty who have that student. Once notification is made, all faculty will make every reasonable effort to accommodate the student's absence and will communicate that accommodation directly to the student. Failure to make an appropriate accommodation for a verified or reasonably suspected case of illness may be appealable under the student grade appeal process. Students who need to report an illness should contact Office of the Dean of Student. They may also call: 518-276-6266.*

Refusal: Refusal to comply with any appropriate request will be treated as would any classroom disruption (request to change the behavior; request to leave the class; dismissal of the class and referral to Student Affairs.)

SCHOOL OF SCIENCE COVID-19 SAFETY COMPLIANCE POLICIES

As a key component of our plan to allow for safe, uninterrupted in-person instruction through the Fall 2020 Semester and beyond, we are establishing the following guidelines and policies for assuring compliance with essential safety protocols.

For Students and Instructors

If your courses meet in person in any capacity (hybrid or other modes involving some face-toface interaction), instructors must include a statement of expected classroom safety behavior requirements in the published course syllabi. These will form the basis of our tracking and reporting policies and associated enforcement strategies. Some courses will require additional Personal Protective Equipment (PPE) in addition to what is mandated for COVID-19 safety. Specific information about additional required PPE will be provided in course syllabi, as well as through instructions given by the faculty, staff or graduate TAs in the classroom or laboratory. Cleaning of personal spaces in lectures, recitations and labs should be encouraged using the cleaning products that will be made available in those areas. A quick wipe-down of personal spaces at the end of the class by individual students would be appreciated as well.

In-person or hybrid Lecture courses or Recitations

Students will be required to wear face coverings at all times while in class and while transitioning between classes. Students must comply with all posted and verbal instructions provided to them by instructional faculty, graduate TAs and staff members. Such instructions may include specific information about individual space cleaning, the directionality of entrances and exits, as well as the times when students and faculty will enter and leave the classroom. These schedules are designed to minimize cross-traffic and enhance social distancing. Faculty will review PPE policies and practices at the start of the semester and when needed.

If students fail to observe COVID PPE (face covering) protocols, they should be challenged and gently urged to comply with safety policies. Faculty should remind such students that noncompliance

with PPE policies is a violation of classroom requirements and Rensselaer policy. If they refuse to comply, quickly determine the cause (no mask?) and help them to fix the problem (there will be extra masks in classrooms.) If the situation escalates, and the student refuses to comply or to leave the classroom when asked, the instructor will need to dismiss the class and to treat the situation as a violation of student behavior policies for adjudication through the office of the Dean of Students.

Laboratory Instruction

Each Science laboratory section may have different (but similar) requirements for chemical or biological safety PPE in addition to COVID-19 PPE. These specific requirements should be covered in course syllabi and discussed at the beginning of the laboratory course. Students without the necessary PPE will not be permitted in the laboratory until they obtain and don the necessary equipment. In certain Biology laboratories, this will mean face masks, face shields and anti-splash lab glasses, while in other Chemistry laboratories, face masks and anti-splash lab glasses or goggles will be required.

SCHOOL OF SCIENCE COVID-19 SAFETY COMPLIANCE POLICIES

In laboratory settings, there is a historical precedent where lab instructors and TAs wander through the laboratory benches assisting and observing students participating in experiments. This will need to be done in a much more distant manner, so students must be made aware of the differences, and faculty and staff will need to adhere to the appropriate safety protocols.

Faculty and Staff Compliance

As with any group of people, some faculty and staff members may feel more or less strongly about adhering to safety rules in a consistent way. Nevertheless, it is critical that we all set positive examples for our students and for our peers. For this reason, we will need to shed any natural inhibitions we may have about approaching others and stating our concerns about PPE or safety protocol deficiencies that we observe in each other. Most of the time, it is expected that friendly suggestions will be taken as intended, and there will be no problems. If chronic problems are observed, this approach may not work very well. In such situations, a report should be made to the Dean of Science where safety concerns will be kept in confidence as much as possible.

Clearly there may be concerns about potential interpersonal problems that could arise from people reporting PPE policy violations, so special considerations will be put into place to prevent retaliation – especially when asymmetric power structures are involved (staff reporting on faculty, junior faculty reporting on senior faculty…etc.)

Each Department Head will act as COVID Compliance Officer for their Department (or ITWS Program), and the Dean of Science will take on the role of the School of Science Compliance Officer. It will be the duty of each Compliance Officer to make sure that an awareness of COVID PPE is maintained within each Department or Program, and serve as a point of contact for any questions or confidential discussions related to COVID safety on campus.

Campus Health and Safety

All members of the campus community should fill out their Health Check-In form daily. Anyone who is concerned about their health on any given day should remain in their residence and

contact Student Health (students) or their personal healthcare provider for an online consultation. Please do not consider coming in for work, or to class or lab simply because of academic or workplace concerns. Your health, and the health of the campus community are much more important. Faculty or Staff experiencing any symptoms associate with COVID should contact their healthcare provider as well as notify their Department Head or Dean.