

Course Syllabus

Please note that the specifics of this Course Syllabus are subject to change. Instructors will notify students of any changes and students will be responsible for abiding by them. Even if you print this syllabus, please check the online version often.

Description

CYBER 100: Computer Systems Literacy (3 credits) - This is an introductory university-level course in computer systems literacy. The history, architecture and operation of computing systems and underlying computing theory are covered. The intent of this course is to ensure that students with diverse backgrounds can gain the information technology fundamental skills and understanding to succeed with subsequent in-depth courses in the Cybersecurity Analytics and Operations curriculum. At the same time the general nature of the introduction may make it useful for other programs that involve education in concepts and skills relating to information and computing systems.

This course introduces the fundamentals of computer systems, so as to provide a base-level literacy that will prepare students in Cybersecurity Analytics and Operations for the focused study of cybersecurity problems and solution approaches. The course is also designed to prepare students who are pursuing other majors relating to information and computing systems within the College of IST and elsewhere.

Prerequisites

- None

Objectives

- Describe and compare the major components of a computer system
- Explain the role of programming languages and levels of abstraction in solving real world information technology problems
- Characterize and give examples of a full computing cycle, i.e. from input that gathered through input channels or stored internal or external data, to processing of that input at multiple levels in response to computational instructions, to the generation and processing of output

Instructor

- TBD

Please note that when you compose an email to your instructor, others will likely be listed as "Teachers" from the Canvas interface. This is misleading because only your

instructor, possibly TA/LA's listed here, are monitoring your messages. All of your course communications should be limited to those listed here.

Materials

- Parsons, J. (2018). *New Perspectives on Computer Concepts 2018: Comprehensive* (20th ed.). Cengage. ISBN 9781305951495

Assignments & Grading

As per university policy, all grading is done by instructors in a fair and consistent manner. This entails not giving preferential treatment in grading with regards to the timeliness, quantity, or quality of work submitted by any one student or group of students unless extra special circumstances warrant it and are approved by the instructor prior to submission. Students must realize that they earn a particular grade on a given assignment or exam and not that the instructor has determined such on his or her own without proper justification. Due to the subjective nature of some assignments, it is the instructor's right to determine a grade based on his or her own evaluation of the timeliness, quantity, and quality of the student's (or group's) work.

Various forms of assessment are present in this course including quizzes and exams which require a good deal of memorization of terminology and concepts. The Mid-Term and Final exams are both cumulative. There is the creation of computer programs included in the course. Also, there are research assignments which involve a good deal of writing. Finally, there are laboratory assignments which involve some "hands on" work to introduce and reinforce various concepts.

Course Grading Breakdown

Grading Category	Percentage of Final Grade
Homework and Labs (x10)	30%
Quizzes (x10)	40%
Exams (x2)	20%
Group Project	10%
TOTAL	100%

Course Grading Scale

The following are minimum cutoffs for each grade:

- 93.00% = A
- 90.00% = A-
- 87.00% = B+
- 83.00% = B

- 80.00% = B-
- 77.00% = C+
- 70.00% = C
- 60.00% = D
- less than 60.00% = F

Course Policies and Expectations

- Students are responsible for reviewing and studying all assigned content including text material, websites and videos. Quiz and exam questions are generated from all of these sources.
- No makeup exams or quizzes will be given unless discussed and approved by the instructor prior to the date of the scheduled exam or quiz.
- No assignments (group projects, labs, other assignments) will be allowed to be turned in late unless permission is granted by the instructor prior to the scheduled due date.
- All correspondence with the instructor and fellow group members will be professional, courteous, and respectful in nature. Students who do not adhere to this standard will be reported to the university for possible disciplinary actions.
- Students who have problems with fellow group members are asked to try and resolve the issue within the group (possibly through a reassignment of duties). The instructor should only be consulted if the group has come to a major stumbling block involving one or more group members that is impeding progress on the group project.
- Logging into Canvas - Students are expected to login regularly to check for course updates, announcements, emails, discussions, etc.
- Emailing through Canvas - Students are expected to use Canvas for all course email communication.
- Attending virtual meetings - Students are expected to use specified virtual meeting tool(s) for collaboration, meetings, presentations, etc., as needed.

Technical Requirements

Standard World Campus computer technical specifications are assumed for this course. [Please test your computer \(Links to an external site.\)](#)[Links to an external site.](#) for requirements. In addition, a webcam and a headset with a microphone are REQUIRED for the course. These may be used for virtual meetings, virtual office hours, interactions with classmates and your instructor, and group presentations - which are all conducted with virtual meeting tools. No special software is required.

Resources

Find extensive information and links to many Penn State and IST resources (including the **Penn State libraries, video conferencing tools, technology and software, writing and research help**, and much more) on the [Resources \(Links to an external site.\)](#)[Links to an external site.](#) page.

University Policies

Review current information regarding Penn State policies (including **academic integrity, copyrights, counseling and psychological services, disability accommodations, discrimination and harassment, emergencies, military accommodations, trade names**, etc.) on the [University Policies \(Links to an external site.\)](#) page.