CMPSC 580
Junior Seminar
Syllabus

Spring 2022

Course Instructor

Dr. Oliver BONHAM-CARTER (said and written as "Bonham-Carter," not "Carter")
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Web Site: `http://www.cs.allegheny.edu/sites/obonhamcarter/`
Class and lab meeting place: Alden 101
Exam Code: E
Final deliverable due: 18^{th} May 2021 at 2:00pm
Distribution Requirements: *none*
Syllabus updated on: June 30, 2022

Instructor's Office Hours

- Monday and Wednesday: 11:00am – 12:00pm (10 minute time slots)
- Tuesday and Thursday: 3:00pm – 5:00pm (10 minute time slots)
- By appointment

To schedule a meeting with me during my office hours, please visit my Web site and click the "Schedule" link in the top right-hand corner. Now, you can view my calendar or by clicking "schedule an appointment" link browse my office hours and schedule an appointment by clicking the correct link to reserve an open time slot.

Technical Leaders

- `https://www.cs.allegheny.edu/teaching/technicalleaders/`

Course Meeting Schedule

Lecture, Discussion, Presentations, and Group Work:
Duration: 21 Feb 2021 - 20 May 2021
Tuesdays and Thursdays, 8:30 AM - 10:00 AM, Alden Hall, 109

Laboratory Session:
Duration: 21 Feb 2021 - 20 May 2021
Wednesday, 2:50 PM - 4:40 PM, Alden Hall, 109

Calendar

The calendar link is provided below to allow you to add the course and lab meeting times into your own Google calendar. Note, the whole link fits onto one line.
`https://calendar.google.com/calendar/u/0?cid=`
`Y185NjFwYzMycHU2aGFpOW5tMW9vb3Fnc3Q1c0Bncm91cC5jYWxlbmRhci5nb29nbGUuY29t`
Note: When copying and pasting the above hyperlink for the address, there are no spaces in the link.

Discord Channel

The below link will expire in 7 days from 21^{st} Feb 2022
`https://discord.gg/8AR35Z3Z`

The `ClassDocs/` Repository

All materials given out in class will be accessible using the `classDocs/` repository. Note: The HTTP link works in absence of SSH keys.

Main site on GitHub:

- `https://github.com/Allegheny-ComputerScience-580-S2022/classDocs`

HTTPS:

- `git clone https://github.com/Allegheny-ComputerScience-580-S2022/classDocs.git`

SSH:

- `git clone git@github.com:Allegheny-ComputerScience-580-S2022/classDocs.git`

Academic Bulletin Description

> A team-based investigation of select topics in computer science, preparing students for the proposal and completion of a senior project. Working in teams to complete hands-on activities, students learn how to read research papers, state and motivate research questions, design and conduct experiments, and collect and organize evidence for evaluating scientific hypotheses. During a weekly laboratory session students use state-of-the-art technology to gain practical skills in scientific and technical writing, the presentation of computational and mathematical concepts, and the visualization of experimental data. Students are invited to use their own departmentally approved laptop in this course; a limited number of

laptops are available for use during class and lab sessions.

Prerequisite: CMPSC 101 and at least one of the Fundamentals courses.

Suggested Reading

The below reading list is strongly recommended to improve students build technical writing skills and to gain a firm understanding in how to conduct responsible research in computer science.

- Deetjen, Thomas A.. *Published: A Guide to Literature Review, Outlining, Experimenting, Visualization, Writing, Editing, and Peer Review for Your First Scientific Journal Article.* Poland: Productive Academic Press, 2020. ISBN: 9781734493108
- Dupré, L. (2000). *BUGS in Writing: A Guide to Debugging Your Prose.* United States: Addison-Wesley.
- Evans, D., Zobel, J., Gruba, P. (2014). *How to Write a Better Thesis.* Germany: Springer International Publishing.
- Gruba, P., Zobel, J. (2017). *How To Write Your First Thesis.* Germany: Springer International Publishing. ISBN: 978-1-4471-6638-2
- Along with reading the required books, you will be asked to study many additional articles from a wide variety of conference proceedings, journals, and the popular press.

Grading

The grade that a student receives in this class will be based on the following categories. All percentages are approximate and, if the need to do so presents itself, it is possible for the assigned percentages to change during the academic semester.

Class Participation	10%
Assignments and lab assignments	50%
Research project and associated materials	40%

Definitions of Grading Categories

- *Class Participation:* All students are required to actively participate in class and lab sessions. Your participation may take the form of contributing to class discussions, completing activities, giving presentations and similar types of class events. In many cases, your participation grade will be determined from your timely submissions for your work. You will likely receive a check-mark grade from the submission of some of your submissions.

- *Assignments and lab assignments:* Several assignments will be given to help students gain experience with specific technical and research resources.
- *Research project and associated materials:* The student will preparing a proposal in original research in this class. There will be several assignment which teach focused aspects of this preparing for research projects.

Extensions

Unless special arrangements are made with the course instructor, no assignments will be accepted after the late deadline. If you are requesting extensions for an assignment, then you are to email me with your request and also provide a *valid reason* for your extension. This request must come before the due date of the lab and not on the due date. Requests will not be granted where the reason appears to be insignificant. Extensions are 24 hours of extra time (after the original due date) and are given out at my discretion. The decision to provide you with an extension (or not) will be weighed in light of fairness to your peers who are still able to complete their labs, regardless of their own busy schedules.

A Note on extenuating circumstances

If you should find yourself in difficult circumstances that significantly interfere with your ability to prepare for this class and to complete assignments, please inform me immediately so that we can work something out together! Do not wait until the last day of class to ask for exceptions to what is stated in this syllabus. In such a situation, you may also find it helpful to contact one of the available resources on campus:

- The Maytum Learning Commons, Library/Academic Commons,
  `http://sites.allegheny.edu/learningcommons/tutoring/`,
  814-332-2898
- Counseling & Personal Development Center,
  `https://sites.allegheny.edu/counseling/`,
  814-332-2105
- Winslow Health Center,
  `https://sites.allegheny.edu/healthcenter/`,
  814-332-4355

Communication

Various digital channels will be used in this course for communication, including email, Discord, and the GitHub issue tracker. It is strongly advised for the student to install the Discord app on their computer and smart-phone to be sure to receive all communications from the instructor, as well as, the other members of the class.

Additionally, the course website will be used to store the syllabus, course schedule and information about the `classDocs/` repository using the GitHub. Your grades will be communicated to you by a Gradebook GitHub repository.

Special Needs and Disability Services

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. Students with disabilities who believe they may need accommodations in this class are encouraged to contact Disability Services at 332-2898. Disability Services is part of the Learning Commons and is located in Pelletier Library. Please do this as soon as possible to ensure that approved accommodations are implemented in a timely fashion.

Honor Code

The Academic Honor Program that governs the entire academic program at Allegheny College is described in the Allegheny Course Catalogue. The Honor Program applies to all work that is submitted for academic credit or to meet non-credit requirements for graduation at Allegheny College. This includes all work assigned for this class (e.g., examinations, laboratory assignments, and the final project). All students who have enrolled in the College will work under the Honor Program. Each student who has matriculated at the College has acknowledged the following pledge:

> *I hereby recognize and pledge to fulfill my responsibilities, as defined in the Honor Code, and to maintain the integrity of both myself and the College community as a whole.*

It is recognized that an important part of the learning process in any course, and particularly one in computer science, derives from thoughtful discussions with teachers and fellow students. Such dialogue is encouraged. However, it is necessary to distinguish carefully between the student who discusses the principles underlying a problem with others and the student who produces assignments that are identical to, or merely variations on, someone else's work. While it is acceptable for students in this class to discuss their programs, technical diagrams, proposals, paper reviews, presentations, and other items with their classmates or other individuals, deliverables that are nearly identical to the work of others will be taken as evidence of violating the Honor Code.