**CS 396H-1 – How to Make Darn-Near Anything**

**Syllabus**   
**Last Update: 03 Feb, 2016**

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| **Time & Location:** | 6:30-9:30pm, W. Johnston 304/308 |
| **Instructor:** | Peter A. Tucker, [ptucker@whitworth.edu](mailto:ptucker@whitworth.edu) |
| **Office Location:** | Johnston Science Building, room 307 |
| **Contact Info:** | Phone: 777-4664 |
| **Office Hours:** | T, Th, 9:30-11:30am; W, 4:00-6:00pm |
| **Text:** | |  |  | | --- | --- | | http://s.s-bol.com/imgbase0/imagebase3/large/FC/2/3/0/4/9200000033394032.jpg | **Required**  Trivedi, Vinay, How to Speak Tech, Apress, 2014 ISBN: 978-1430266105 URL: <http://www.speakingtech.com/> | |  | **Required**  30 Weeks, The Blueprint, Version 1.0, 2015 URL: <https://www.30weeks.com/> | |
| **Description:** | Have you ever had a great idea for a product? Have you ever wanted to be part of a startup technology? Students in this course learn the steps and skills needed to design, build, and market a new product based on their own interests. Topics include programming skills, user experience design, testing, marketing, and promotion. |
| **Department Goals Addressed:** | Develop the proficiency for software engineering.Cultivate problem solving and critical thinking skills.Learn interpersonal skills and develop the ability to effectively function in teams.Demonstrate proficiency in communication skills - written, verbal, and presentation.Understand the need for sound ethical decision-making and consider how faith and/or worldview can inform ones vocation and professional practices. |
| **Overview of Topics:** | * The Internet and Cloud * Programming Techniques and Languages * User Experience * Using Database Systems * Software Development and Production * Ethical considerations in creating software |
| **Requirements:** | * Attend class meetings regularly and consistently. Since much of your work will be done in a group setting, attendance is especially important. * Turn homework in by 11:59 pm on the designated due date. Expect to spend a minimum of 3 hours outside of class for each hour spent in class. * No late homework will be accepted after six school days. * Students will participate in group projects, class discussions and presentations. |
| **Grading:** | To receive an A for the course, you must either do everything required extraordinarily well, or, you must do more than required (for example, extra credit problems, related but more challenging problems, etc.). "A" students seek out ways to extend their learning and understanding of Software Engineering.   |  |  | | --- | --- | | **Course Component** | **Weight** | | Homework, Labs, Research Papers, Reading Responses, etc. | 20% | | Sprint Demos/Reports | 40% | | Group Project, Final Presentation | 30% | | Attendance and Participation | 10% |  |  |  | | --- | --- | | **Total % Earned** | **Grade** | | 90% - 100% | A- to A | | 80% - 89% | B- to B+ | | 70% - 79% | C- to C+ | | 50% - 69% | D- to D+ | | 0%  - 49% | F | |
| **Expectations:** | * I save homework assignments and session notes to Google Drive for our class. You should have received an invite. It’s easier to synchronize directly on Google Drive than to have to post everything to Blackboard. Grades are posted on Blackboard. It is the student’s responsibility to consult online postings if they miss a class. * Students are encouraged to consult with one another and the instructor. |
| **Academic Honesty Policy:** | Please note that I take extremely seriously the university’s policy on the need for academic honesty in all your work. **I refer you to the Whitworth Catalog, and the current Student Handbook, where guidelines on plagiarism and other forms of academic dishonesty are spelled out. Any form of dishonesty in an assignment will lead to a zero on the assignment, and I reserve the right to give a grade of F for the course as well.** |
| **Special Needs:** | Whitworth University is committed to providing its students access to education. If you have a documented special need that affects your learning or performance on exams or papers, you will need to contact the Educational Support Office (Andrew Pyrc – ext. 4534) to identify accommodations that are appropriate. |
| **Solving Difficult Problems:** | During the course of the semester you will encounter difficult and challenging problems. You may not be able to solve all problems by yourself. Use the following guide to help you approach these types of problems:   1. Read the problem statement carefully (2-3 times). 2. Refer to the class handout for problems that may be similar to the problem you were given. Read the handout carefully and the assigned reading carefully. 3. Refer to any additional materials that your instructor provides. 4. Attempt to solve the problem by yourself. 5. If you still have problems, discuss the problem with your fellow students. We encourage you to form “study discussion groups” to discuss possible solutions (at a high level) to the programming problems, but we discourage “group programming” or sharing code except on specific group projects when specified.   If you still have difficulties seek out your instructor. |

**Tentative Schedule**

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| **Date** | **Topic** | **Readings** | **Notes** |
| 03 Feb | Intro, The Internet | Trivedi Chap 1 | Speed dating |
| 10 Feb | The Cloud | Trivedi Chap 2  [The Scrum Primer](http://www.rallydev.com/documents/scrumprimer.pdf) | HW 1 due |
| 17 Feb | Programming Languages | Trivedi Chap 3 | HW2 due |
| 24 Feb | User Experience | Trivedi Chap 4 | HW3 due |
| 02 Mar | Database Systems | Trivedi Chap 5 | HW4 due  Guest Speakers: Lauren Pangborn & Hannah Gamiel |
| 09 Mar | Leveraging Existing Code | Trivedi Chap 6 | HW5 due |
| 16 Mar | Software Development: Teams | Trivedi Chap 7 | HW6 due |
| 23 Mar | *Spring break* |  | *No class* |
| 30 Mar | Software Development: Process | Trivedi Chap 8 | HW7 due |
| 06 Apr | Software Development: Testing | Trivedi Chap 9 | HW8 due  Guest Speaker: Dave Morasch |
| 13 Apr | Marketing | Trivedi Chap 10 | HW9 due |
| 20 Apr | Performance | Trivedi Chap 11 | HW10 due |
| 27 Apr | Security | Trivedi Chap 12 | HW11 due |
| 04 May |  |  |  |
| 11 May |  |  |  |
| 18 May | Finals |  | Final presentations |