

COMP 680 Seminar in Software Engineering
Dr. Shan Barkataki, Computer Science Department, CSUN
shan @ csun . edu Office (remove spaces) : Office: JD 4449 Phone: 818-677-2733
M 15:00 - 16:15; W 18:50 – 19:20 Class room: JD3508

Office hours: M 15:00-16:00 W 15:00-16:00 email at any time

Course synopsis: COMP680 is a seminars class. We will read and discuss papers on current developments as well a few classic papers. You will join a seminar group of typically of two or three students. Each group will present a seminar on a specific topic. The group will also list three papers for the others to study and write seminar questions. There will be one analysis and design project (no coding involved). You will also write a research paper on a topic in software engineering. This is not an online course, class attendance is essential to pass this class. You are expected to submit all assignments for grading. Do not game the course grade!

Prerequisites: Comp380/L and Comp322/L or equivalent. Work experience cannot be substituted for academic prerequisites however equivalent classes taken elsewhere can. You need to have good comprehension of the prerequisite material and adequate skills in reading and writing English. Lack of proper preparation is the primary reason for student's poor performance in this class.

Text book: ACM & IEEE digital libraries. In place of a regular text book we will use online resources. You will have full access to the ACM digital library and partial access to the IEEE Xplore database as long as you visit these resources from the CSUN library web site

(http://library.csun.edu/Find_Resources/Databases/index.html) The following free resources will also be used, some need free registration. Software Engineering Information Repository (SEIR):

<https://seir.sei.cmu.edu/seir/> SEI publications: <http://www.sei.cmu.edu/publications/>

STSC articles repository: <http://www.stsc.hill.af.mil/crosstalk/2003/articles.html> WWW Virtual Library: <http://vlib.org/Computing>

SW Eng BOK:

<http://www.sei.cmu.edu/publications/documents/99.reports/99tr004/99tr004chap03.html> and Google Scholar: <http://scholar.google.com/>

Internet: You will need fast internet access to use the digital libraries and to do other searches. Fast internet access is freely available in the CSUN library and in many computer labs within the university. You also have fast wireless in many areas within campus. Visit

<http://www.csun.edu/technology/index.html> To get a CSUN computer account

<http://www.csun.edu/itr/guides/account.html>

Email: I will send all email to your CSUN email address using a special class email alias. If you do not use the CSUN webmail client, then please set up webmail to auto-forward the emails sent there to wherever you read your email (use Solar for auto-forwarding). Make sure that the target email account for the forwarded emails is functional (not over quota or expired). Please make sure that your CSUN webmail is not over quota (happens due to spam), if it is, then the auto-forwarding will not work and you will lose important class announcements.

WebCT: See webCT for course notes and assignments webteach.csun.edu I will register you automatically at webCT

Turnitin.com: Many homework assignments and the research paper will be submitted via turnitin.com See the instruction & tutorial at <http://www.turnitin.com/> You will need to self register- I will provide the class code and password in class or email. When you register at turnitin.com, please use your CSUN email address. (An email address like kissmegwik@yahoo.com leaves me clueless about who you are and your submissions may not get graded.

Evaluations: The final grade will be based on the following:

Item	Weight
Paper Review quizzes (closed book)	20%
Research Paper (turnitin.com)	15%
Seminar presentation (Group)	10%
Seminar presentation (Individual)	05%
Seminar questions (turnitin.com)	05%
Design project (webCT/hardcopy)	10%
Attendance & participation (please sign attendance sheet)	05%
Final Exam (seminar Q&A, papers, other topics TBD)	30%

Typical grade distribution: (A 85-100%); (A- 83-84%); (B+ 80-82%); (B 75-79%); (B- 69-74%); (C+ 65-69%); (C 60-64%); (C- 57-59%); (D+ 54-56%); (D 51-53%); (D- 48-50%); F < 48%

Class etiquette: *Please silence all pagers and cell phones before entering classroom.* Please, no snoozing in class, because it is disruptive to others. If you feel sleepy, then you can walk out of the class room, get a drink of water, wake-up and return. You can even stand at the back of the room to beat that drowsy feeling!! Read "How to ace my class" in my website. COMP680 is a participatory class, but please avoid private discussions during class sessions; share all discussions with the whole class in an orderly manner.

Paper reviews: Papers and articles from online sources will be assigned for study and critical review and class discussions. There will be approx 4 closed book quizzes to evaluate your grasp of the concepts in these papers. These quizzes may contain TRUE/FALSE questions and short essay questions.

Research paper: Each student will write a research paper on a topic selected from a list that I will supply. The research topic must be chosen from the list of topics that I will provide, it cannot be a topic chosen by you (avoids submission of the same paper in multiple classes).

- 1) The final paper should be between 6 to 8 typed pages long, including diagrams. The papers should be of professional quality and conform to the ACM style guide at www.acm.org/sigs/pubs/proceed/pubform.doc, however, use a single column format (i.e. do not use the two column format), use single spacing, use a serif font such as Ariel with a font size of 11 or 12, paginate the paper. There is no need for including the copyright block. Other than that, follow the ACM guidelines including abstract, keywords, section numbers and titles etc. Use of illustrative diagrams is highly recommended.
- 2) You should study and analyze a minimum of **5** high-quality references from computer science journals, conference proceedings and reputable web sites. **Please note that there will be no exceptions to the 5 paper rule. Submit these references in turnitin.com (details in class).** Contents from reputable vendor websites are acceptable references but no more than 2 should be except when the paper involves a product trade study (e.g. comparison of CASE tools or IDEs)
- 3) You must write the paper in your own words; anyone who submits a paper written by someone else (including paid term paper writing services) will receive a failing grade in the paper and in the course as a whole.

- 4) All material (text, diagram, etc.) quoted (i.e. copied verbatim) or paraphrased from other work must be formally cited as specified in the CSUN catalog; reproduced at http://library.csun.edu/Research_Assistance/plagiarism.html Also see the Grading policy section later in this syllabus.
- 5) Your final paper should reflect an in-depth study and evidence of critical analysis of the referenced material. The paper **MUST HAVE THE FOLLOWING MANDATORY SECTIONS**, no additional sections should be present. Papers that do not have these sections will earn a significantly low score. You need to work on the paper throughout the semester. Leaving the paper to the last two weeks runs a great risk of failure.
 - a) **Background:** Describe the background of the topic you have chosen and state the importance of the topic in software engineering. **(5%)**
 - b) **Literature survey:** Summarize the papers that you listed when choosing the topic plus any additional papers that you discovered. Briefly describe the major results and conclusions contained in each referenced paper. **(15%)**
 - c) **Role in Software Engineering:** Discuss what role does the method/technique play in software development? Examples: it may help produce better analysis, design, code, or test work products. It may help process improvement. It may enhance software quality or productivity. It may reduce development cost or shorten development schedule, etc. **(25%)**
 - d) **Critical Analysis:** Provide a critical analysis of the papers you have studied. Critical analysis means that you have read and understood the papers, and analyzed the contents. The results of the analysis should be presented by addressing one or more of the following: Are the arguments logical? Are the results quoted reasonable? Are the investigating procedures/methods reliable? Are there unsubstantiated conclusions? Are there major issues missing? Does the paper contain rationale for the conclusions made? Example: trying to establish a trend based on limited data, establishing software laws from experiments conducted entirely within an academic environment, etc. **(40%)**
 - e) **Conclusions:** Summarize major observations and/or findings from your work. **(5%)**
 - f) **Surprise Section:** A surprise section will be specified one week before the paper is due. This is my attempt at rewarding those of you who are not tempted by the "rent a paper writer" scam. **(10%)**
- 6) The paper submitted through turnitin.com should be in Microsoft word format (not PDF). If you use open office please convert to word format with the free tool provided. I need word format so that I can provide inline comments.

Seminars: Student seminars will play a major part in the COMP 680. .

- 1) The class will be divided into several seminar groups consisting of two to four students each. Each group will present a seminar on a topic chosen from a list of seminar topics that I will provide in webCT.
- 2) Seminar groups will be formed by posting specially organized messages in webCT. Detailed procedure will be explained in class.
- 3) Each seminar presentation should be a highly technical providing an in-depth analysis/description of the material on the subject matter. Pretend as if you are giving a short course to a collection of software engineering professionals. The presentation should make good use of PowerPoint (or

similar) visual aids. Each member of the team must speak.

- 4) I will post a list of topics in the webCT discussion forum. Each group will claim a topic by posting its name in the chosen topic. Details will be announced in class. The seminar topic has to be chosen from the list I will provide. Selection basis for topic will be FCFS as recorded in webCT postings.
- 5) Next, each group will claim one of the scheduled presentation dates in webCT. Selection of the basis will be FCFS.
- 6) Each group will post in webCT, its final and “camera ready” copy of the slides by 12:00 of the day before the scheduled seminar date (typically noon, Sunday) and send an email to the class announcing the availability of the slides. I will provide the special email address in class. A 20% penalty will apply for submissions received after 12:01 on the day before. The late penalty will increase by 5% every hour, to a maximum penalty of 50%. The slides presented in class must be **identical** to those posted.
- 7) Ideally, the posted file should be in PDF format, although PowerPoint format will be acceptable; if you use Open-Office, then please convert to PowerPoint format for posting. There are many free PDF converters available (Google “Free PDF converter”), Adobe allows 5 online PDF conversions for free at <http://createpdf.adobe.com/>
- 8) Each presentation should last about 60 minutes, not including the time for questions and answer session (Q&A) after the presentation.
 - a) The instructor will be the moderator throughout the seminar presentations and the Q&A session.
 - b) Each student in the seminar group will earn points by making a part of the presentation. The 60 minute presentation time should be equally divided among the presenters.
- 9) After the presentation, each student, not presenting, will earn points by asking a question that is relevant to the presentation topic.
 - a) Individual members of the seminar team will take turns in fielding these questions and earn points by answering the questions to the point- quickly and concisely.
 - b) The total time for each question and answer will be about 2 minutes; follow-up questions can be asked within this time limit or at the end of the Q&A session. Always seek recognition from the moderator to ask follow-up questions.
- 10) The seminar group will prepare and post a list of articles for the rest of the class to read. These will be posted in discussion forum under a topic name that I will create. The reading list should contain no more than 3 representative articles and must be posted at least two weeks prior to the scheduled seminar presentation date. Note that you post on the references to the articles, not the full text. These articles should be freely available on the web; ideally in the ACM digital library or IEEE Xplore available through the CSUN library. Online articles published by professional organizations or well known companies/institutes (SEI, IBM, SUN, Microsoft, HP etc.) are also acceptable. Contents of sales/commercial nature are not acceptable.
- 11) Each student, not in the seminar presentation group will read the listed articles and write two relevant questions in a file and submit the file for grading at www.turnitin.com day by 12:00 noon of the day before the scheduled seminar presentation (typically noon Sunday). Timeliness is

important, turnitin.com will NOT accept submissions after the deadline and hardcopy submissions will not be acceptable; failing to submit a question will result in total loss of points. Please create your questions file in Microsoft word, or PDF format.

a) The file name format is <your last name>-<Initial>-Q-<mm-dd-yy>.(doc|pdf) Examples:
barkataki-p-Q-02-25-08.doc agile-p-Q-03-24-08.pdf

- 12) You can use these prepared questions during the Q&A after the presentation or ask a completely new question based on the presentation. These questions should be searching-probing questions derived from the posted reading material. Do not write questions that asks "Tell me more about xxx", or "Tell me how does this differ from xxx". "Garbage" questions that are vague, rambling, overly general, or off-topic will earn no points.
- 13) Each student in the class, other than those in the seminar group making the presentation, will do a peer evaluation of the presentation regarding its technical content, helpfulness of the visual aids, the organization of the presentation, and its overall clarity. Students will not evaluate the group's oral presentation skills or language proficiency. The peer evaluations will be turned in at the end of class. I will supply a form for this.

Seminar diary: Maintain a diary of the discussions that take place during the seminars. The final may include questions from these seminar discussions and you will be able to consult your diary during the exam.

Analysis & Design project: I will provide a problem for analysis and design. This will be a team effort. The project team will be set up in a manner similar to the formation of the seminar teams. I expect you to be familiar with a standard SW eng development method (COMP380/L stuff) and leverage on that maturity to create analysis and design models for the project. I will not teach any method, you will earn higher credit by submit complete and comprehensive models and also by selecting a new state-of-the art method. Each group should set up a Google group for holding online discussions and for posting the work products. Please make me a group owner using the email sbarkataki at gmail dot com I will look at the postings and submissions in the group site for grading purposes.

Participation: Students who participate actively and constructively in the class discussions and webCT bulletin board postings will receive more marks than those who are passive. Regular, punctual, and complete attendance will also earn points for participation.

Final: The questions will be picked from the material from the review papers and the seminar discussions. There may be essay questions and objective (true/false) questions.

Review Papers, Research Paper Topics and Seminar Topics: Will be posted in webCT

Grading policy: Submission of assignments must be made by the deadline. Late submissions will not be possible for the seminar questions. In other cases, I will give reasonable extension for good cause. Except in case of emergencies, a request for extension should be submitted by email on or before the due date. The extension request should specify: Your name, description of the assignment, why you need an extension (in two lines), and the new date by when you will submit the assignment. Assignments submitted after the solutions have been discussed in class will not be graded.

Please arrange to take all exams on the scheduled dates. I will reschedule exams only for

emergencies.

In fairness to all, I give **no make-up assignments** to compensate for poor performance in work that has already been graded.

There will be ZERO TOLERANCE against plagiarism and cheating. Plagiarism will result in very low points or a failing grade, both in the assignment and in the class as a whole. Section entitled "ACADEMIC DISHONESTY" in the CSUN catalog gives definition of plagiarism and cheating; this entire section is included in this syllabus by reference. In this class, the term plagiarism also includes the case where a student submits material for grading that is authored by someone else as his or her own work. Examples of such plagiarized work include term papers, computer programs, design solutions, and answers to questions written by a commercial entity or anyone else other than the student. However,

- a) Peer review of your work by others is both acceptable and encouraged. Peer review involves reading and commenting of your work by others for the purpose of identifying areas of weakness and excellence. Peer review comments are just that- comments; you should neither seek, nor use any actual solutions or answers provided by the reviewers.
- b) Students are allowed to work together in teams in design projects, seminars and in writing the research paper (max per research paper team); in all such cases, THERE MUST BE ONLY ONE submission of the work and the names of all students in the team should appear in the submission.
- c) Students can also collaborate in studying the papers for review; however, each student must submit separate and distinct questions.

Any student found cheating or plagiarizing will be assigned the grade F in the semester's class grade; the student will not be given the opportunity to resubmit the assignment or retake the exam.

Regular and timely class attendance is required to pass this class. Please make sure that you sign the attendance sheet that will be circulated in the class from time to time (not in every class and not always at the same time). If you have a work or family conflict that will not allow you to attend class regularly and do the assignments in a timely manner, then please consider dropping this class now and taking it in future.

All homework/coursework submissions should be of professional quality; always do a spell & grammar check. Computer printout is best (printers available in all computer science labs).

Submitting work:

1. Most assignments will ask for electronic submissions at www.turnitin.com, webteach.csun.edu, or the Google group site.
2. Some assignments may require printed submissions. Submit all hardcopy work in class, not in my office or in the comp science office.
3. Except in case of emergencies please do not email submission to me, these are likely to get lost- I have very aggressive email filters that will dump your hard work in the bit bucket.