



## Department of Chemical and Materials Engineering BCME 281 Thesis/Project Preparation Course Syllabus

<b>Instructors:</b>	TBD
<b>Office Location:</b>	TBD
<b>Telephone:</b>	<b>TBD</b>
<b>Email:</b>	TBD
<b>Office Hours:</b>	TBD TBD
<b>Class Days/Time:</b>	Friday 1500-1750 and possibly 1500 – 1850 during proposal defenses
<b>Classroom:</b>	TBD
<b>Prerequisites:</b>	The student must be in Classified Standing and Good Standing (GPA $\geq$ 3.0) in the graduate program of his/her department, submitted their candidacy form (which requires a minimum of 9 MS units completed) and must have successfully completed the English Competency Requirement (Engr 100W/200W with a B or better grade or APPROVED Petition). In addition, students <b>MUST</b> have their thesis/project advisor and their thesis/project <u>topic</u> identified <b>BY THE FIRST CLASS SESSION</b> or they will be dropped. A Prerequisites Checklist is to be turned in during the first class period.

**NOTE:** Students are responsible for all information on the Syllabus. Students missing the first course meeting must write a one page summary describing the key Syllabus points due within 1 week of their attendance in class. Tuesday, September 3rd, is the last day to drop a class without a petition.

**NOTE:** Students who desire extra writing and oral presentation help should sign up for Engr 90W. You can also receive help from the Writing Center located in Clark Hall Rm 126. You need to make an appointment, call 924-2308 or go on-line to [www.sjsu.edu/writingcenter/](http://www.sjsu.edu/writingcenter/).

**NOTE:** Cell phones, pagers, ipods and the like should remain off during class time. **The same goes for computers when students are presenting their oral presentations.**

### **BCME 281 course webpage**

Copies of the course materials such as the syllabus, class notes, special announcements, etc. may be found on the Canvas 281 website. You can find login instructions at <http://www.sjsu.edu/at/ec/canvas/>. The student is responsible for making copies of course materials and for knowing all information posted on the Canvas 281 course website by the instructor.

### **Course Description**

Development of project or thesis research proposal.

### **Course Goals and Student Learning Objectives**

The primary objective of this course is to prepare the student for thesis/project research. A secondary objective is to provide training in technical presentation techniques - both written and oral. The results of this course should be a complete thesis/project research proposal, including scope definition, time schedule for implementation, and assembly of the Reading Committee.

### **Library Liaison**

Jennifer Dinalo, 408.808.2038, [jen.dinalo@sjsu.edu](mailto:jen.dinalo@sjsu.edu)

## CLASS ATTENDANCE

Attendance of ALL class meetings is mandatory INCLUDING all proposal defenses even if they are scheduled at a date/time other than the normal class time. Unexcused absences will result in a grade of No Credit. Any student missing more than two of the scheduled classes, including late arrivals, early departures, will result in a grade of No Credit for the course. Students who arrive late or leave early will receive one warning and then will be subject to receiving a grade of No Credit.

Students will also receive a grade of No Credit if they are not able to complete an approved introduction and literature review report, both oral and written versions. Students receiving an No Credit grade as a result of non-acceptance of reports, or lack of participation, will be required to attend the course during the subsequent semester with full participation.

**ORGANIZATION:** In this course each student will be required to prepare and deliver a series of three reports. The sequence of the reports is based on a systematic development of the project or thesis. The subjects of these reports are:

- (1) An *INTRODUCTION* to the general topic,
- (2) A *LITERATURE REVIEW* of the specific topic of the project or thesis, and
- (3) A *THESIS/PROJECT PROPOSAL* that should include the detailed scope and plan of the research.

A detailed summary of the minimum content of each report is included in the Appendix to this Syllabus. All presentations must be made on the date scheduled, unless “excused” and rescheduled following the guidelines shown on the schedule. Such arrangements will be made only for serious and compelling reasons and provided they do not disrupt the schedule of other students in the class. Class participation is a requirement of this course as this is essentially the only opportunity graduate students have to be exposed to other research areas, a primary experience at other universities.

All oral presentations must be made using appropriate presentation software. *Students are required to use PowerPoint with appropriate use of features and a LCD Projector. At a minimum, use of color and background and a few examples of use of animation are required.*

## READING COMMITTEE

The READING COMMITTEE should be selected in consultation with your SJSU faculty research advisor, who is one of the three members. **The READING COMMITTEE only needs to attend the Proposal Defense** (and Final Thesis/Project Defense). For **thesis** students, as per CME and University guidelines, the official READING COMMITTEE must consist at the minimum of one CME tenured or tenure-track faculty member, another SJSU faculty member who can be tenured/tenure track or temporary, and a third member who can be another faculty member of any type, or an industrial representative who has a Ph.D. or is an senior-level manager. If the work is being sponsored off-site then the Reading Committee **MUST** contain a senior representative from the company/agency sponsoring the work. Additional members can be added, but at least the three official members described **MUST** be at the proposal defense or the defense will have to be rescheduled. Under no circumstances can the defense proceed any of the three described members are not present. However, the Reading Committee can change along the way as long as the three Reading Committee Members described are represented.

For project students, the only change is that only the SJSU Research advisor and industrial representative (or additional SJSU faculty member if the work is done for SJSU) need to attend the proposal defense and final project defense. However, if the SJSU faculty member is not a tenure-track BCME faculty member, a tenure-track BCME faculty member **MUST** sign off on the written and oral presentations. A tenure-track BCME faculty member **MUST** be involved from the start of the project until the final defense to make sure all BCME requirements are being met. All other requirements are the same as described for thesis students.

## SUBMISSION SCHEDULE

Students must assemble and confirm the complete Reading Committee prior to delivery of the LITERATURE REVIEW. The INTRODUCTION and LITERATURE REVIEW reports must be submitted to the SJSU research advisor at least one week prior to the scheduled class presentation. The SJSU research advisor must

have time to approve the reports so more than one week might be necessary. Work with your SJSU research advisor to make sure you meet their requirements. All members of the Reading Committee must receive a copy of the PROPOSAL at least one week prior to the scheduled presentation of the final THESIS/PROJECT PROPOSAL. However, the SJSU research advisor must approve the THESIS/PROJECT Proposal BEFORE it goes out to the committee. Thus, the research advisor should receive a copy at least two weeks, or more if you have significant editing work, before the THESIS/PROJECT PROPOSAL presentation date.

The student must obtain their SJSU Research Advisor's signature on the form included in this Syllabus prior to EACH presentation. The signature indicates the research advisor's approval of the written and verbal presentations. The student must bring the signed form to class on the scheduled date or have their SJSU Advisor email the instructor that the report is approved, in order to present their report. If the report, as delivered, is deemed acceptable by the advisor AND the 281 Instructor, the student will then proceed to the next report stage. If the report is not accepted, then the student will need to re-do this report until successful in gaining acceptance. It is NOT necessary for the Research Advisor or Reading Committee to be present in class when the INTRODUCTION/LITERATURE REVIEW report is presented, however they are welcome to attend. The 281 Instructor must receive a copy of the written presentation and the slides just prior to the presentation (Three slides/page are acceptable). The written report must be submitted to turnitin.com by midnight the Wednesday before the report is due.

The required official members of the student's Reading Committee MUST be in attendance at the presentation of the THESIS/PROJECT PROPOSAL DEFENSE. All members of the Reading Committee AND the 281 Instructor are to get a copy of the slides just prior to the defense. The decision for acceptance of the oral and written proposal will normally be made in a meeting following the oral presentation. A revised **final** Thesis/Project Research Proposal, incorporating all changes suggested by the Reading Committee and BCME 281 Instructor, by the last day of class. Acceptance of the oral presentation and written proposal by the 281 Instructor will be based partially upon meeting certain minimum quality standards, described in this Syllabus. Failure to meet the listed standards will require the student to repeat the presentation or resubmit the report, even though the initial version may meet the technical content criteria.

**Standards for Written Reports:** All written reports and materials submitted for this course must meet the following criteria and standards:

1. Be in grammatically correct English.
2. Be in conformance with SJSU's M.S.Thesis Guidelines:  
[http://www.sjsu.edu/gradstudies/docs/thesis\\_guidelines.pdf](http://www.sjsu.edu/gradstudies/docs/thesis_guidelines.pdf)
3. Be in conformance with the CME Thesis Guidelines: [https://bcme.sjsu.edu/files/public/CME\\_Thesis\\_Guidelines.pdf](https://bcme.sjsu.edu/files/public/CME_Thesis_Guidelines.pdf)
4. Be unglarigized.

#### **Submitting your assignment to "turnitin.com":**

Students will submit their combined Intro/LitRev Report and Proposal Report to turnitin.com through the 281 Canvas website.

Do not worry about formatting, figures, equations etc. The copy you turn in to the instructor is the one that will be evaluated for correct format by the instructor; turnitin will only check for plagiarism.

#### **Advice on paraphrasing/ avoiding plagiarism:**

Some students plagiarize unintentionally because they do not use proper paraphrasing. Plagiarism is copying anything directly from another source, when you don't reference that source. You need to take a concept and completely re-write it in your own words and style *and then reference the location as the source of the concept*. Generally in the engineering profession, it is not an acceptable practice to put in quotes anything directly from another source and reference it as such. You are generally expected to re-write it in your own words. Changing a word or two in a sentence is not proper paraphrasing. To improve your paraphrasing, when you read a paper or website, write information down in your own words using a style different from the paper (like perhaps writing a bulleted list rather than complete sentences). **Credit: Advice on paraphrasing/ plagiarism:** were obtained from Professor Stacy Gleixner.

See also: <http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml>  
<http://www.geneseo.edu/~brainard/avoidingplagiarism>  
<http://www.lib.usm.edu/legacy/plag/plagiarismtutorial.php>

**COURSE SCHEDULE:** A detailed course schedule will be prepared and distributed after determining the exact number of students in the class, and the presentation schedule is worked out. You must let me know BEFORE the revised schedule is posted, if you or any of your committee members have any times conflicts with the dates/times for the proposal defenses or you will be responsible for following the instructions below to reschedule your defense. Proposal defense times may include an hour after class and Dead Day if necessary.

After the schedule is posted on the Discussion Board of the SJSU Canvas 281 course website, if you have to make any changes from your scheduled date:

1. FIRST let me know.
2. SECOND find someone you can switch with and make sure ALL committee members are ok with the switch, ONLY THEN tell me the arrangements. Those new arrangements are then final unless the steps are repeated as described above.

**The DRAFT Schedule is as follows \*\*\*\* AND WILL BE SUBJECT TO CHANGE ONCE CLASS STARTS \*\*\*\***

<b>Week containing:</b>	<b>Topic</b>
	Class Organization; Prerequisite Check, Explanation of Thesis/Project Requirements, Reading Committee Requirements, Plagiarism, Introduction Content Discussion.
	<b>3 pm Literature Search Tools, MEET AT KING LIBRARY Classroom 219</b> <b>Last Day to Get Your Intro Report (Title page and Prepages Included) to your SJSU Advisor for September 12 Due Date</b> <b>HW 1 Due – Report Guidelines</b>
	Literature Review Content Discussion; Preparation of Oral Presentation/Slides Discussion <b>Introduction Written Reports Due and Introduction Oral Presentation Slides Due– No Oral Presentation – Bring or email SJSU Advisor Approval</b> <b>HW 2 Due by 8 pm– Citations</b>
	Proposal Content Discussion Design of Experiments Presentation Review of Introduction Slides and Written Reports
	<b>Lecture</b> Determining if you have Good Data Presentation, Safety Presentation <b>HW 3 Due – DOE</b>
	<b>Lecture</b> 298/299 Greensheet including lab notebooks <b>HW 4 Due – Safety</b>
	<b>NO CLASS MEETING</b> <b>Last Day to Get Your Lit. Rev. Report (Title page and Prepages Included) to your SJSU Advisor for Presentations</b>
	<b>Intro/Literature Review Presentations Written and Oral (15 minutes maximum)</b> <b>Bring or email SJSU Advisor Approval</b> <b>Last Day to Get Your Lit. Rev. Report (Title page and Prepages Included) to your SJSU Advisor for Presentations</b>
	<b>Intro/Literature Review Presentations Written and Oral (15 minutes maximum)</b> <b>Bring or Email SJSU Advisor Approval</b> <b>Last Day to Get Proposal Report to you SJSU Advisor for Presentations</b>
	<b>NO CLASS MEETING –</b> <b>Last Day to Get Proposal Report to you SJSU Advisor for Presentations</b>
	<b>Thesis/Project Proposal Examinations Written and Oral (30 minutes maximum)</b> <b>Last Day to Get Proposal Report to you SJSU Advisor for Presentations</b>
	<b>Thesis/Project Proposal Examinations Written and Oral (30 minutes maximum)</b>
	<b>Thesis/Project Proposal Examinations Written and Oral (30 minutes maximum)</b> <b>Last Day to Get Proposal Report to you SJSU Advisor for Presentations Thesis/Project Proposal Examinations Written and Oral (30 minutes maximum)</b>
	<b>Thesis/Project Proposal Examinations Written and Oral (30 minutes maximum)</b>
	<b>Proposal turnitin.com submissions must be completed in order to receive a grade</b>

## APPENDIX 1 - SPECIFIC CRITERIA FOR REPORTS AND PRESENTATIONS

All written documents submitted must be in proper and acceptable English in order to be accepted for grading. Reports that are grammatically faulty and those that are not written in good English, as judged by the instructor, will not be accepted. Students who are not confident of their English grammar are strongly recommended to seek out other sources to help address these issues well ahead of time. Each report should include a cover page with topic title, your name, date of presentation, advisor, and the following text: "In partial fulfillment of course requirements for BCME 281, Fall 2014. Course Instructors: Dr. M. McNeil and Dr. B. Lustig".

**NOTE:** It may be useful to borrow a thesis or project report from your advisor as an example to guide you in the preparation of your own thesis or project report.

### 1. *INTRODUCTION/BACKGROUND REPORT*

The *INTRODUCTION* should provide the background to the research subject (define, discuss, all items appearing in the research title), explain its economic and technical significance **under a specific section labeled Significance**, and how it fits into the overall scope of related technology. The technological history of the subject should be summarized, from inception through current areas of research, development and application. Particular milestones in the development of the subject, such as new applications or new analytical methods that provide data to better understand the technology, should be included in this report. Potential areas for research with regard to this subject should be included in the presentation, with emphasis on any areas that are being considered for this project or thesis. While every introduction includes background, some students have so much background due to the nature of their topic, they must include an introduction chapter and background chapter (definitions, equations, principles of operation, etc.). In that case, the introduction is the general background to the topic (what is it, why is it important, why is it something still being studied, what are the economic impacts of it, etc.). It may be necessary to use two chapters (introduction then background). But all the relevant background, including important equations, should be developed in the introduction/background. The literature review is to discuss what has been done by other researchers, NOT to discuss theory.

The oral presentation slides should include a minimum of 5 slides. The written report should be approximately three to five page, double spaced document that is well referenced in the text and includes a List of References (full citations as per CME Thesis Guidelines format style) at the end that is not counted in the page limit.

**NOTE:** If INTRODUCTION and BACKGROUND chapters are used, you may have more than 5 slides and any length number of pages for your written report. Even so, when you do your Intro/Literature Review oral presentation, you will have to trim your intro/background to fit it in the 15 minute time limit for that presentation.

### 2. *LITERATURE REVIEW REPORT*

This should provide a summary of the past work done by other researchers on topics that are either similar or related to proposed project (the hypothesis/objectives of the project should help determine the pertinent literature) and **should cover at least 20 different sources** (journals, books, websites). This requirement is NOT satisfied simply by providing a listing from a literature search, manual or automated, or by a summary report of the contents of several specific articles. It is critical to the preparation for a research project that the literature review should confirm the need for the research, and show how your results will be integrated into the current body of knowledge. The continuity of the research conducted by other investigators must be adequately covered. In short, after completing the literature review, the student should be able to discuss the subject of their research on a level with other investigators working in the field. The Literature Review report must demonstrate both breadth of coverage as well as depth of analysis. Information on important parameters and the range of interest of such parameters along with methods of analysis should be included as they will provide the justification for your own proposed experiments. The student should consider the following questions when determining the suitability of including an article in the Literature Review:

- Is the work significant or repetitious?
- Are the results reasonable or do they appear selective?
- Are the conclusions reasonable or extrapolated beyond the range of the results actually obtained?
- Does the work provide valuable recommendations for future work in the area?

The oral report will be a combined Intro/Background/Lit. Review and should be a maximum 15 minutes in duration, include at least 15 slides (that should include both the introduction/background and literature review material), and demonstrate (show graphs and figures) significant results reported in the literature. The written report should be a minimum of ten double spaced pages in length, be well referenced, including ending with a list of references in the correct CME Thesis/Project format.

### 3. *THESIS/PROJECT PROPOSAL*

Under the guidance of their advisor, students will develop and write a Thesis/Project Proposal, which is expected to be at least 20 to 25 pages, double spaced, and well referenced. The THESIS/PROJECT PROPOSAL will contain the following at a minimum:

1. An Executive Summary should be attached of no more than 3 pages that briefly introduces the research/project topic, gives the motivation for studying this topic, lists the hypothesis and/or objectives, and describes the experimental approach including proposed analytical equipment and analysis of results. This Summary should be ATTACHED to the proposal, and not be part of the proposal..
2. An Introduction/Background Chapter(s) that provides the background to the research subject, explains its economic and technical significance, and how it fits into overall scope of related technology.
3. A Literature Review Chapter that discusses related work or research done by other individuals in the past.
4. A Research Hypothesis and/or Research Objective(s) Chapter that outlines the basic research question(s) that the student intends to answer during the course of the investigation (Objectives and/or Hypothesis(es) and Justification). This chapter must be at least a few paragraphs long.
5. A Chapter on Materials and Methods that includes a detailed research approach and experimental plan. This section must demonstrate, IN DETAIL, how the student intends to answer the Research Hypothesis(es)/Objective(s). The exact experimental methodology that will be taken, the total amount of expected data, the manner in which that data will be analyzed, and how this processed data will be utilized to answer the research hypothesis/objectives must be clearly delineated. This section must also list the equipment and materials and supplies needed for the project, and where and how these will be available.

**If appropriate, the student will be required to utilize Design of Experiments approaches in the experimental methodology.**

6. To facilitate student's being aware of and following proper procedures, each BCME Proposal needs to include a detailed Safety Section. See the 281 Safety document for detailed content instruction.
7. A Project Schedule showing the individual activities, durations and project milestones required for completing the research. Normally, it is expected that research will be completed in no more than one year and the Project Schedule should reflect this with respect to specific dates. This timeline will be used in 298/299 as the basis if your success in achieving progress. You will be required to submit progress reports to your advisor during semesters you are enrolled in 298/299.

The Proposal oral report should be a maximum of 30 minutes in duration, and include at least 20 slides. It will be followed by approximately 5-10 minutes of questions from the class and 15-20 minutes of questions from the Reading Committee. After the question session, everyone except the Reading Committee will leave the room and the Committee will discuss whether the candidate passes, passes with certain conditions (e.g. add some material to their proposal) or fails.

## COMMON WRITTEN PRESENTATION ERRORS

The following are some errors that showed up in a number of written presentations and/or that Graduate Studies refused to accept some recent theses showing these errors:

1. Do not use bold characters on your Title Page or in the Table of Contents. (Graduate Studies)
2. Two spaces are required after any period or colon anywhere in your report except decimals.
3. Fives spaces are needed at the beginning of each paragraph. Graduate Studies takes this as indenting 0.5 inch. If you space over 5 times they consider that only 2.5 spaces (they are going by letters not empty spaces).
4. Graduate Studies requires a comma between nouns for three or more in a sentence; e.g. There are an apple, a banana, and an orange on the table.
5. The month and year that should appear on the title page is your graduation month such as May 2015, August 2015 or December 2015 (not your defense month if it is different).
6. In case of long headings (more than one line) for figures, tables or Table of Contents sections, these should be single spaced and left justified. Double-space between one heading and the next in your Table of Contents. The same is true for the references. They are single-spaced within a reference but double-spaced from one reference citation to the next.
7. When referring to Chapter, Section, Appendix, etc. in the text, these should always begin with capital letter (same as Figure 3 or Table 4).  
For example: As mentioned in Chapter Three.  
As shown in Section 4.1.  
As shown in Appendix A.
8. Your Objectives/Hypothesis Chapter must have a few paragraphs in order to be considered a chapter.
9. If you have a hypothesis(es), you must state each one such as: The hypothesis of this thesis is that the addition of organic surfactants will improve etching rate compared to similar solutions which do not contain organic surfactants.



## SOME NOTES ON PRESENTATIONS AND SLIDES

1. Remember the time limit, especially during your proposal (and especially during your final defense). You **MUST** meet the time limit. You do **NOT** have to present every result even if you want to. It is your job to decide what to present so that the audience can follow your presentation. You will get a 2 minute warning and then be cut off. If you did not manage your time to cover the pertinent material (such as the experimental methods during your proposal or your results/discussion during your final defense) you will have to redo your presentation.
2. All oral presentations must be made on PowerPoint slides using professional background, graphics/animation and layering as appropriate.
3. All slides are to be prepared with a minimum font size of 18 pt. Clarity of the slides when projected onto the screen is essential.
4. Do not crowd your slides. A general rule of thumb is no more than 7 lines of no more than 7 words per line. The slides are just to remind you what to say, not to say everything for you.
5. Do not read a prepared text including the slides. The slides enhance your presentation - **they are not your presentation.**
6. All figures in presentations must be appropriately labeled, with credits given to original source(s). Figures must be numbered in consecutive order even if they must be changed from the number used in your written report.
7. Photocopied figures must also be appropriately numbered and labeled.
8. No more than one figure per viewgraph. The figure should also be enlarged sufficiently so that the audience can see it clearly.
9. Face the audience during presentations, make eye contact, speak loudly and clearly, and **do not mumble**. Watch your speed so it is neither too slow nor too fast. Make natural gestures. Watch nervous habits such as unconsciously flashing a laser pointer, clicking a pen, or saying a word over and over (e.g. basically).
10. The cover page should include topic title, your name, date of presentation, advisor, and the following text: "In partial fulfillment of course requirements for BCME 281, Fall 2014. Course Instructors: Dr. M. McNeil and Dr. Brooke Lustig".
11. Be **CONCISE** when answering questions, remember the time limit. You can say you'd be glad to discuss it in more detail later. **DO NOT** go into elaborate discussions during the question/answer session!
12. Do not pretend an answer you don't know. You can say you don't know, or it's beyond the scope of your research but you'll look into it or the like.

## COMMON ORAL PRESENTATION ERRORS

The main corrections for the oral presentations are

Do a spell check. Make sure to spell your committee member's names (including Dr.), affiliations, correctly.

Be consistent in your capitalizing, if you capitalize only the first letter of the first word of your bullets do that for each one, if you prefer to capitalize the first letter of each word do that for each bullet.

Watch your use of the laser pointer so you are not running the laser through the audience.

Do not put up a slide that contains your List of Reference Citations. Give the complete citation on each slide only for figures and tables etc. from other sources.



## ***BCME 281 – Approval Form – Fall 2014***

<b><i>BCME 281 – Approval Form – Fall 2014</i></b>		
Student Name		
Student ID Number		
Thesis/Project Title		
SJSU Thesis/Project Advisor <b>Must be Person 1 or 2 on Committee</b>		
Reading Committee <b>Members 1, 2 and 3 are required.</b>	1. CME tenured or tenure-track faculty member:	
	2. SJSU faculty member:	
	3. SJSU faculty member or industrial representative (senior):	
	Others (not required)	
Introduction	SJSU Advisor Approval	
Literature Search	SJSU Advisor Approval	
Proposal	SJSU Advisor Approval	
Proposal Examination Decision Choose one of the following  <b>Pass/ Pass with Conditions.</b> List the conditions in the box on the right.  <b>Fail</b> List any comments in the box on the right.  USE AN EXTRA PAGE IF NECESSARY	The Turnitin.com Report has been reviewed _____ SJSU Advisor Signature  The student is recommended for a: (Circle One) <b>Thesis</b> <b>Project</b>	
Approval of <b>Proposal Decision</b>	SJSU Research Advisor's Signature/Date	
	Committee Members Signatures/Date	
	Committee Members Signatures/Date	
	Committee Members Signatures/Date	
	281 Instructor's Signature/Date	

**Reading Committee:** As a team, please evaluate the oral and written presentations by scoring the statements on the back of this page using a ranking of 1 to 5 where 5 = excellent, 3=acceptable and 1=unacceptable. **NOTE: SCORES OF ≤ 3 REQUIRE A CONDITION TO BE MET BY THE STUDENT BEFORE THEY CAN PASS THEIR DEFENSE.**

1. The student delivered a professional written report. (Note: 1 = insufficient technical content and/or major formatting, and/or lack of adequate referencing, and/or major grammatical/spelling errors, 3 = acceptable technical content, formatting, referencing and grammar/spelling, 5 = excellent report in all aspects)

2. The student delivered a professional oral presentation. . (Note: 1 = insufficient technical content and/or major errors in grammar/spelling and/or insufficient use of presentation software and/or in major errors in deliverance of a practiced presentation including response to questions, 3 = acceptable technical content, grammar/spelling, use of presentation software and deliverance of a practiced presentation including response to questions, 5 = excellent presentation in all aspects)

3. The student was able to show how his/her project relates to work reported in the literature. (Note: 1 = incomplete or irrelevant literature cited and/or inadequate literature discussion, 3 = adequate amount and discussion of relevant literature, 5 = excellent discussion of relevant literature)

4. The student was able to defend his/her proposed experiments based on established and accepted engineering, science and statistical principles. (1 = student did not or was not able to adequately justify the majority of their experimental proposal, 3 = student did adequately justify most aspects of their experimental proposal, 5 = excellent justification of all aspects of their experimental proposal)

5. The student was aware of the global impact of their work on society including the ethical and/or environmental and/or economic impact of his/her work. (Note: 1 = neither the oral nor written presentation had a separate section on the global impact of the proposed work, 3 = both the oral and written presentation had an adequate section on the global impact of the proposed work, 5 = both the oral and written presentation had an excellent section on the global impact of the proposed work).

Please write any other comments you think would help evaluate the quality of this proposal.

## **Dropping and Adding**

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) section at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the [current academic calendar](http://www.sjsu.edu/provost/Academic_Calendars/) web page located at [http://www.sjsu.edu/provost/Academic\\_Calendars/](http://www.sjsu.edu/provost/Academic_Calendars/). The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties for dropping classes. Information about the latest changes and news is available at the [Advising Hub](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>.

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## **Grading**

Class credit will be based on the acceptance of all reports, in class participation by the student in all class meetings and completion of homework assignments. Students will be required to ask questions of the presenters. When answering questions, the presenter will be evaluated on their knowledge of the subject and conciseness in answering.

## **University Policies**

### **Academic integrity**

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The [University's Academic Integrity policy](http://www.sjsu.edu/senate/S07-2.htm), located at <http://www.sjsu.edu/senate/S07-2.htm>, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. Cases of academic dishonesty will result in an F on the assignment, and a note to appropriate personnel on campus, including your advisor for addition to your file, and may result in an F in this course. You are expected to submit your own original work. If you would like to include in your assignment any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy F06-1 requires approval of instructors. If that class has/had team members, you must reference them.

For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy S07-2 requires approval of instructors.

## **Studying Skills and Test Taking Skills**

Following are the URLs for several web sites containing test-taking and studying skills information. You will notice that planning, time management and the like are part of these skills. If you are not already skilled in any of these areas, you might find it helpful to work on a regular basis with the counselors at Counseling Services (your fees pay for this service) to set up and follow through on the ideas presented on these sites as several of the counselors are trained specifically in these areas (improving test-taking and studying skills).

<http://www.studygs.net/>

<http://www.prenhall.com/success/StudySkI/testtake.html>

## **Campus Policy in Compliance with the American Disabilities Act**

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please let me know as soon as possible. [Presidential Directive 97-03](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) at [http://www.sjsu.edu/president/docs/directives/PD\\_1997-03.pdf](http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf) requires that students with disabilities requesting accommodations must register with the [Accessible Education Center](http://www.sjsu.edu/aec) (AEC) at <http://www.sjsu.edu/aec> to establish a record of their disability.

## **Course Learning Objectives**

1. Apply fundamental knowledge of engineering, science, and statistics in order to develop a detailed research plan.
2. Communicate effectively in both oral and written formats.
3. Demonstrate the ability to adequately reference your research proposal to give credit to the ideas and data developed by other people.
4. Demonstrate an understanding of the environmental, safety and economic impacts of your research on society.
5. Develop a comprehensive literature review using appropriate electronic search strategies.
6. Demonstrate the ability to collaborate with other professors, advisors and students knowledgeable about aspects of your research area in order to develop a comprehensive research plan.
7. Demonstrate a basic understanding of the use of statistics and design of experiments techniques in designing experiments and interpreting data.

## BCME 281 - Prerequisites Checklist

Name		
Student ID Number		
Street Address		
City, ZIP		
Best Phone to Reach You:		Email:
Student Status	<i>Classified</i> <b>or</b> <i>Conditionally Classified</i>	
Student Standing	List your cumulative MS GPA:	
Units	Number of units completed in MS Program:	
SJSU Research Advisor's Name		
Research Topic		
Research Status	Have you started your project    Yes    No    How many months? _____ Circle One	
Writing Requirement	Requirement met by: <i>100W/200W/Publication/Petition</i> (Circle one) List your 100W/200W Grade if taken as a Graduate Student:	
Candidacy Form	Has Candidacy Form been Approved and Submitted? <i>Yes/No</i>	

**Please note that these requirements (having a research advisor and research topic, classified standing, good standing, writing requirement including acceptable grade, candidacy form submitted,) must be met in order to continue in BCME 281.**

The paperwork to move to classified standing and the candidacy form, can be submitted to your graduate advisor (Dr. England, Dr. McNeil, or Dr. Selvaduray) by the drop deadline.