

SYLLABUS: SAE 550

TITLE: SYSTEMS ARCHITECTING AND THE POLITICAL PROCESS.
LECTURER: Dr. Elliot Axelband
TA: Mr. Kenneth Cureton
TIME: Wednesdays, 6:40-9:20 p.m.
ROOM: RTH 115: Ronald Tutor Hall Studio 115 (Webcasted Course)
OFFICE: GER 216c, Wednesdays, 5:30-6:30 p.m. (213) 740-0867

COURSE OBJECTIVES:

The design and development of a major engineering system is often strongly influenced by political processes in the U.S. Government for funding and approval of that project. System architects are carefully trained in analytical techniques for dealing with cost, schedule, and performance challenges, but are often woefully unprepared for the role of governmental politics in their projects. This class provides system architects with training in political risk mitigation tools that aid in understanding and surviving the political processes that inevitably affect engineering decisions.

UNIVERSITY POLICY STATEMENTS:

"The Viterbi School of Engineering adheres to the University's policies and procedures governing academic integrity as described in *SCampus*. Students are expected to be aware of and to observe the academic integrity standards described in *SCampus*, and to expect those standards to be enforced in this course."

"Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to the TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 am - 5:00 pm, Monday through Friday. The phone number for DSP is (213) 740-0776."

READINGS:

- There are **no required textbooks** for this class. Weekly class notes will be provided. I'll post them on the DEN Distance Learning Website, at least one week in advance.

The URL of the DEN site is: <http://den.usc.edu/>

- You will need to obtain a password from the DEN in order to view the detailed class material via the DEN.
- The class notes are in Microsoft WORD format, and require an additional password. The lecture notes are in Microsoft

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POWERPOINT format, and do not require a password if accessed via
the DEN.

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GRADE:

- 75% of your grade will be based on your RESEARCH PAPER. Read the paper guidelines on page 4 of this syllabus. Even more detailed guidelines appear at the beginning of your Class Notes. And the web site has a whole paper on how to write your Research Paper.
- 25% of your grade will be based on WEEKLY HOMEWORK and classroom participation. This gives me an ongoing sense of how well you are absorbing the course's concepts, and gives you some feedback on how I grade and on your performance in the class.
- No MIDTERM or written FINAL examination will be given for this class.

CLASSROOM ATTENDANCE AND PARTICIPATION:

- As this is a webcasted course, 100% attendance in the classroom is not mandatory. However, I strongly encourage you to ask questions and participate in discussions regarding the lectures. If you are attending the class from a remote site, please call the appropriate Webex or TV studio telephone number in order to ask questions. Your classroom participation is a factor in your final grade.
- E-MAIL!!! I strongly encourage your use of e-mail for questions. Of course, if you prefer face-to-face interaction or telephone conversations-- well, that's equally acceptable! For you remote students that cannot attend the class in the DEN Studio, or must view a Webex or webcast, or are frustrated by the telephone process: I consider your e-mail as equivalent classroom participation! Please address your e-mail to me at axelband@usc.edu and axelband@rand.org and to the class TA at cureton@usc.edu.

Note-- all homework, abstracts, and research papers should be submitted to DEN Assignments Online. Please do not e-mail your class assignments or final Research Paper unless specifically requested.

- WHAT IF YOU MUST MISS A CLASS BECAUSE OF WORK OR TRAVEL??? Use DEN Assignments Online to submit items on time, if you can. If not, please contact me in advance to negotiate excused late submittal. Late submittals of abstracts and research papers will

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impact your grade.

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IF YOU WANT HELP:

- My on-campus office hours are Wednesdays from 5:30 to 6:30 PM in GER 216c. My on-campus telephone number is (213) 740-0867.
- I am also available for questions and answers via electronic mail: axelband@usc.edu and axelband@rand.org and the class TA at cureton@usc.edu.
- I encourage you to e-mail me *at any time* to discuss research problems, questions, etc.

RESEARCH PAPER GUIDELINES

- The Research Paper is the key to your class grade!
- Your paper must be purposeful. Your paper needs to have an academically acceptable goal, something more than just demonstrating that you can accomplish research and write a cogent Research Paper that summarizes that research, as those are necessary but not sufficient goals for academic purposes.
- For this class, your purpose should be two additional goals that are above and beyond conducting research and a writing Masters-level Research Paper:
- Your first goal is to demonstrate that you understand and can properly apply the concepts presented in the class through the accomplishment of structured political analyses of a technical topic.
- Your second goal is to inform the reader and "teach" your Instructor regarding political impacts on the architecture and design of your chosen topic (or "teach" your Instructor regarding recent political and technical events in your chosen topic).
- Failure to achieve any of the above will impact your paper's grade!

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RESEARCH PAPER GUIDELINES (continued)

TOPIC: *Describe an engineering or scientific program (or process) and analyze it in terms of the concepts this course teaches you. Your analysis should be quantitative where possible and provide qualitative discussions based on the political risk mitigation factors presented in this course.*

Subject to my approval, you get to choose the topic:

- It can be something that you have been personally involved in, or something that interests you.
- It can be an engineering program (see Case Studies #2, #4, #5, #6, #7, or #9 for examples), a scientific program (see Case Study #3 for an example), or a "process" (see Case Study #8 and #10 for examples)
- It can be ongoing or it can be past history.
- If it is ongoing, give a prognosis: what are its chances of success, based on what you have learned in this course?
- If it is past history, give a post-mortem based on what you have learned in this course: what went right? what went wrong? what could have been done better? what lessons can be learned?

APPROVAL: You must submit a one-page abstract regarding your proposed topic for approval. Please submit via DEN Assignments Online no later than February 11, 2015.

FORMAT: Microsoft WORD (.DOC) or Adobe Acrobat (.PDF) format for abstracts and research papers. A list of sources and contacts is essential, listing what sources you used and whom you interviewed. Be sure to provide the URLs of any Internet sources used in your research.

The class website provides a list of topics from students in prior years. It also provides guidelines on how to write a research paper, with suggestions for format, organization, structure, and content of good research papers.

Recommended Reference: *A Manual for Writers of Research Papers, Theses, and Dissertations, Seventh Edition* by Kate L. Turabian, The University of Chicago Press, Seventh Edition (published April 2007), Hardback (\$35.00) ISBN: 9780226823362, Paperback (\$17.00) ISBN: 9780226823379.

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RESEARCH PAPER GUIDELINES (continued)

LENGTH: As long -- or as short! -- as it needs to be. Experience to date shows that the average is somewhere around 20-30 pages, single-spaced, in 10 or 12-point type.

NOTE: I do not grade papers by their weight! Take as long as it takes to tell the story clearly and to present a well-organized analysis in terms of the course. N.B. very few papers of size less than 18 pages have been worthy of a good grade in this class. The point is not size, rather amount of analytical content, which should be at least 10 pages of detailed analytical content.

SOURCES: You must properly reference all sources. We will use the turnitin.com service to look for matches with existing books, magazine and newspaper articles, journals, prior student papers, and all Internet sources.

If you directly quote text from a source, you must properly designate quoted material "in quotation marks" or *in italics*, and give a citation for each quotation via a footnote or a numbered reference. Please do not use in-text (author-date) notation for citations. The amount of quoted text relative to the total text in your paper should be kept to a minimum-- if excessive, this will detract from your paper's grade.

WARNING: Failure to properly designate copy-and-pasted text will be considered as a violation of academic integrity (see University Policy Statements at the beginning of this syllabus). This includes quotations from your prior papers (e.g. from SAE 549 or other classes)!

Remember that you can build on your own work from other classes, and from other author's works, as long as you properly cite those references. You must not directly copy text from those sources (unless properly marked and cited as a quotation). Instead, you must add value by citing then restating such work in your own words plus your own enhancements, such that the combination has enhanced relevance to this class.

You can directly copy graphics, tables, or figures if you give a citation for each copied item. Although there is

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no limitation on the relative amount of copied items, your
own artwork-- however crude yet clearly legible and
illustrative-- is always acceptable.

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RESEARCH PAPER GUIDELINES (continued)

LIMITS: I cannot accept a request to limit access to your abstract or research papers. Although I do not plan to disseminate your work without your permission, I cannot guarantee that other people (including non-US citizens) will not view or handle your submitted materials. Thus you must not use classified, proprietary or company limited-distribution materials in your coursework. If your employer requires review and approval for your submitted materials (e.g. Public Affairs Office or Export Compliance Review) then you must obtain such approval within the deadlines listed in this syllabus. As the approval practices in many companies may be time consuming, the best practice is not to use company material at all.

DELIVERY: Please submit via DEN Assignments Online no later than the scheduled final exam date (Wednesday May 6, 2015).

GRADING: Your research paper will be graded on the letter scale: A+, A, A-, B+, B, B-, etc. Your classroom participation (in person or via e-mail or telephone) is one factor in this grade, and can move your paper's letter grade up (or down!) by a plus or a minus.

N.B. very few papers are worthy of an "A" grade in this class unless they exceed most of the requirements given in the Research Paper Checklist (i.e. have more than the minimum required number of examples of the political facts of life, plus at least one new proposed political fact of life). The checklist descriptions represent the minimum requirements for a passing grade ("B") in the class. And to deserve an "A+" grade, a paper would have to be of sufficient quality and depth of analysis that it could be used as a Case Study for this class.

I have to turn in the class grades shortly after the end of last lecture, so I'll inform you via e-mail regarding your research paper grade (as well as your overall grade) no later than two weeks after the paper is due.

Note: if your employer requires a written statement (or a signed postcard) for re-imbursement for this class, then please provide me with the appropriate paperwork and a

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self-addressed, stamped-envelope (or postcard) before the
end of the semester.

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ADDITIONAL INFORMATION:

- Please feel free to e-mail me for help in structuring your research plan. I will gladly work with you to review your outline, draft paper, potential references, etc.
- If English grammar, spelling and syntax are not your strong points, I strongly suggest that you obtain help in editing your text. Your grade depends on the clarity of presentation.

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HOMEWORK GUIDELINES

HOMEWORK: *Starting with the SECOND week's lecture (Case Study #1), you are to briefly analyze each week's case study in terms of the political risk mitigation factors presented in this course. Your goal is to demonstrate that you understood the potential engineering impact of political circumstances presented in each case study.*

You will be presented with the political "Facts of Life" in the first week's lecture. Most weeks you will hear a case study in the class lecture period. You are to describe the current (or final) condition of each case study in terms of each of the political risk mitigation factors. Quantify your descriptions with two citations wherever possible.

LENGTH: Two or three pages should be sufficient for each homework assignment. Keep your descriptions brief: try to make your points in bullet format for each political risk mitigation factor. Specific instructions are included in the class notes following the Same Case Study #1.

FORMAT: Electronic format: .DOC or .PDF or .PPT

DELIVERY: Please submit via DEN Assignments Online no later than the week after that week's lecture. After that, you lose one point for that homework assignment each week that it is late. All homework is due no later than the scheduled Final Exam date (Wednesday May 6, 2015).

GRADING: Each homework submission will be graded on a scale of zero-to-nine, based on your analysis of the case study presented that week in terms of the Political Risk Mitigation Factors covered in this class. I'll grade and comment on your homework typically within about one week after I receive it.

The first homework assignment (Sample Case Study #1) is a practice assignment. You'll have a chance to re-work and re-submit that one assignment (if you choose), based in hints in your returned assignment (many students-- especially highly-logical students-- don't do well on the first assignment).

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FINAL GRADE

GRADING: Your class grade is computed as follows:

First, your research paper letter grade is converted into a numerical score: 100 for A+, 95 for A, 90 for A-, 87 for B+, 85 for B, 80 for B-, 77 for C+, 75 for C, 70 for C-, 67 for D+, 65 for D, 60 for D-, 0 for F. This score is then multiplied by three.

The total of all homework scores is added to the above. Note that the score for any one of the eleven homework assignments may range from 0 to 9 points.

The grand total of points is divided by 4:
$$\text{CLASS SCORE} = (3 * \text{PAPER} + \text{HOMEWORK}) / 4$$

(i.e. 75% for your research paper plus participation, and 25% for your homework assignments.)

This class score is converted into a letter grade for the class: ≥ 94 for A, 93-90 for A-, 89-87 for B+, 86-84 for B, 83-80 for B-, 79-77 for C+, 76-74 for C, 73-70 for C-, 69-67 for D+, 66-64 for D, 63-60 for D-, 59-0 for F).

This letter grade is reported to USC as your class letter grade. (University grading policy does not allow an award of an A+ class grade.)

Note that an A+ in your research paper letter grade can "make up" for weakness in your homework scores! For example, with an A+ research paper letter grade you can miss as many as two whole homework assignments and still earn a class letter grade of A.

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SCHEDULE OF LECTURES:

01/14/15: INTRODUCTION TO THE COURSE.

The purpose of the course, and how it will provide you with analytical tools for use in mitigating political risks in your current and future projects. Introduction to "The Facts of Life", the organizing concepts for the case studies to follow.

Readings: Class Notes provided via website.

01/21/15: INTRODUCTION TO THE POLITICAL SYSTEM. (Case Study #1)

How Washington works -- or doesn't. The dynamics of the political system, with emphasis on the Congressional appropriations process, which provides (or denies!) funds. Preliminary coping skills for the modern design engineer. A sample Case Study is presented for analysis as the first homework assignment.

Readings: Class Notes provided via website.

01/28/15: SPACE STATION FREEDOM. (Case Study #2)

The long, tangled and at times humiliating political and design history of America's Space Station *Freedom* (a precursor to today's International Space Station): a classic study of The Facts of Life in action, and an introduction to the political dilemma of funding basic research projects.

Readings: Class Notes provided via website.

Homework: Analysis of sample Case Study #1 due.

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SCHEDULE OF LECTURES: (continued)

02/04/15: ***SUPERCONDUCTING SUPERCOLLIDER.*** (Case Study #3)

Big Science in action. A classic study in the techniques of mustering what was at first a powerful, durable and effective constituency for a multi-billion-dollar project in tight budget times -- and the causes contributing to its sudden death in 1993. This is a continued investigation of the political problem of funding basic research projects.

Readings: Class Notes provided via website.

Homework: Analysis of sample Case Study #2 due.

02/11/15: ***NATIONAL AEROSPACE PLANE.*** (Case Study #4)

NASP: A superbly ambitious undertaking in basic research--disguised as an airplane. The political dynamics that force this essentially ill-fitting "disguise" as the price of granting funding, and the resultant costs to the essential research goal.

Readings: Class notes provided via website.

Homework: Analysis of Case Study #3 due.

REMINDER: DEADLINE FOR SUBMITTING PAPER ABSTRACTS. One or two paragraph description, plus a one-page outline, with proposed research design (sources, research approach, etc.).

02/18/15: ***THE POLITICS OF LAUNCH SYSTEMS.*** (Case Study #5)

The problem of mustering a constituency for a space infrastructure. The dilemma: the political system's insistence that any new launch system have specific near-term missions, whereas an infrastructure's ultimate uses are only known after it is in place.

Readings: Class Notes provided via website.

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Homework: Analysis of Case Study #4 due.

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SCHEDULE OF LECTURES: (continued)

02/25/15: *STUDENT PRESENTATIONS.* (Part I)

Up to 10 Student Presentations (per student: 10 minutes of presentation plus 5 minutes of question-and-answer period)

Readings: None.

Homework: Analysis of Case Study #5 due.

03/04/15: *STUDENT PRESENTATIONS.* (Part II)

Up to 10 Student Presentations (per student: 10 minutes of presentation plus 5 minutes of question-and-answer period)

Readings: None.

Homework: None due.

03/11/15: *STUDENT PRESENTATIONS.* (Part III)

Up to 10 Student Presentations (per student: 10 minutes of presentation plus 5 minutes of question-and-answer period)

Readings: None.

Homework: None due.

03/18/15: *SPRING BREAK*

No class this evening.

03/25/15: *GUEST LECTURE-- ACRV.* (Case Study #6)

Readings: Class notes provided via website.

Homework: None due.

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SCHEDULE OF LECTURES: (continued)

04/01/15: V-22 TILTROTOR. (Case Study #7)

The Program That Wouldn't Die. A textbook case in building a constituency strong enough to support a weapon system that both the White House and Defense Department tried to kill over a four-year period (for reasons completely unrelated to the merits and limitations of the system itself). This case study has been updated by Dr. Phan Phan: a former student of this class.

Readings: Class notes provided via website.

Homework: Analysis of Case Study #6 due.

04/08/15: GLOBAL POSITIONING SYSTEM. (Case Study #8)

Precision navigation and time-keeping for the military and for the masses. A classical "everyone-wins" success story. But two "little" problems emerge-- how to keep an enemy from using GPS against us? And, can civilian users depend on GPS accuracy for critical functions like airline navigation and landing? The political process steps on the debate (excuse me-- steps in the debate) for control of GPS and design of the next-generation GPS satellites. This case study examines the political impacts of system operation and use, whereas prior case studies focus on the political impacts of system design and construction.

Readings: Class notes provided via website.

Homework: Analysis of Case Study #7 due.

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04/15/15: *THE FEDERAL FIRE-FIGHTING PROCESS.* (Case Study #9)

So far we've looked at Aerospace, Engineering, and Big Science projects. But what about the impact of the political process on other areas? Here we examine the impact of political perception and funding on fire-fighting and ecosystems management in federally-owned wildlands. And our emphasis continues on the political aspects of system operation and use.

Readings: Class notes provided via website.

Homework: Analysis of Case Study #8 due.

04/22/15: *THE SARDAR SAROVAR DAM.* (Case Study #10)

Are the Political Facts Of Life applicable to non-US programs? Let's analyze the Sardar Sarovar Dam project in India and find out. HINT: demand for scarce resources + politics = vexing Engineering challenges, regardless of country of origin. This paper provided by Dr. Indrajeet Dixit, a former student and TA for this class.

Readings: Class notes provided via website.

Homework: Analysis of Case Study #9 due.

04/29/15: *RE-INVENTING THE FEDERAL GOVERNMENT.* (Case Study #11)

So the Federal Government has decided once again to re-invent itself, and attempt to balance the out-of-control Federal Budget, reduce the National Debt, and improve the balance of trade. Again. What does this mean to the System Architect, and what portent does this have for the future?

Readings: Class notes provided via website.

Homework: Analysis of Case Study #10 due.

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SCHEDULE OF LECTURES: (continued)

05/06/15: *FINAL EXAM WEEK - NO FINAL EXAM.*

No class this evening.

Homework: Analysis of Case Study #11 due.

REMINDER: RESEARCH PAPER DUE, ALL LATE HOMEWORK DUE.

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HOMEWORK CHECKLIST:

Here's a checklist that you should use in the writing of your Homework assignments for the USC SAE 550 Class. *This is what I use in grading Homework assignments.*

This isn't meant to indicate a strict FORMAT or an OUTLINE-- it's just a checklist. Please refer to the class website and lecture notes for detailed instructions on formatting your Homework.

- () Your Name, Homework Number, and Date?
- () FOL #1 Analysis, 2 examples?
- () FOL #2 Analysis, 2 examples?
- () FOL #3 Analysis, 2 examples?
- () FOL #4 Analysis, 2 examples?
- () FOL #5 Analysis, 2 examples?
- () Additional FOL Analysis, 1 example?
- () Proposed/"New" FOL (extra credit)?

The term "FOL Analysis, 2 examples" means that you have provided two different examples of how that particular Fact-Of-Life (FOL) impacted the system's architecture or design. I'm expecting a brief sentence or two citing specific evidence for each example. You can use a bulletized format. You don't have to write a descriptive narrative for your Homework Assignments, but you can do so if you so choose. I prefer short/crisp/bulletized examples in Homework assignments. Please do not provide additional examples in the hope that at least some will be correct. For Homework assignments, provide only the required number of examples (no more, and no less).

My intent in providing you with this list is to HELP you in accomplishing a brief analysis of each Case Study, and to provide some insight into the kind of technical "meat" that I'm looking for in considering your Homework Assignment grades.

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RESEARCH PAPER CHECKLIST:

Here's a checklist that you should use in the writing of your Research Paper for the USC SAE 550 Class. *This is what I use in grading papers.*

This isn't meant to indicate a strict FORMAT or an OUTLINE-- it's just a checklist. Please refer to the class website and lecture notes for detailed instructions on formatting your paper.

- () Title Page?
- () Abstract (with a brief biography)?
- () Introduction or Background or History?
- () A general description of the system?
- () FOL #1 Analysis, at least 2 examples? (more than 2 is better)
- () FOL #2 Analysis, at least 2 examples? (more than 2 is better)
- () FOL #3 Analysis, at least 2 examples? (more than 2 is better)
- () FOL #4 Analysis, at least 2 examples? (more than 2 is better)
- () FOL #5 Analysis, at least 2 examples? (more than 2 is better)
- () Additional FOL Analysis, at least 1 example? (more is better)
- () Proposed/"New" FOL(s) (extra credit)?
- () A summary or conclusion?
- () References or bibliography or footnotes?

The term "FOL Analysis, at least 2 examples" means that you have provided at least two different examples of how that particular Fact-Of-Life (FOL) impacted the system's architecture or design. I'm expecting a NARRATIVE format of AT LEAST ONE paragraph for each example. DO NOT use the abbreviated/bulletized format used in the Homework. N.B. very few papers are worthy of an "A" grade in this class unless they exceed most of the minimum requirements given in the checklist above (i.e. have more that the minimum required number of examples of the FOLs, plus at least one new proposed FOL). The checklist represents the minimum requirements for a passing grade ("B") in the class. You can provide more than the required number of examples for extra credit in your paper.

One of the metrics used to grade papers is the volume of analysis, which should be at least 10 pages of analysis in terms of 12 point text in Times New Roman font, single spaced, with 1" top and bottom margins and 1-1/4" left and right margins (and figures deleted unless they specifically contribute to, or are part of the analysis).

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-----**RESEARCH PAPER CHECKLIST:** (continued)

What if you can't find information about one or more of the FOL's? DO NOT SKIP THAT ANALYSIS, and assume that it is not applicable! Such omission will significantly impact your grade. You may need to analyze a similar type of system, and then predict (by analogy) what would likely happen with your system under those circumstances.

My intent in providing you with this list is to HELP you in accomplishing a comprehensive analysis of your chosen topic, and to provide some insight into the kind of technical "meat" that I'm looking for in considering your paper's grade.

HINTS! Common mistakes that students make include:

- * No title page. Believe it or not, this happens! In many of the USC Distance Education Network (DEN) classes (but not this one), students are required to submit their papers via e-mail or a fax to the DEN, rather than online via DEN Assignments. In such cases students may be used to filling out a DEN submittal form. The DEN submittal form is not a title page!
- * No abstract, or missing a biography in the abstract. Yes, you have to both provide an abstract for approval and place that abstract on the second page of your paper. If you have adjusted your abstract after obtaining approval of your chosen topic, then the adjusted abstract should be used in the paper.
- * No clear linkage of analysis to a specific political Fact Of Life (FOL). Your paper should clearly indicate which FOL (or FOLs) are applicable to the analysis presented. There are two major ways of ensuring clear linkage: the first is to have a separate section header for each FOL and then provide the appropriate analysis, and the second is to indicate the appropriate FOL in parentheses at the conclusion of each analysis, e.g. (FOL #2: COST RULES).
- * Missing one or more examples for a FOL. Remember that for the five primary FOLs there must be at least two different examples (more is better), and for any one of the additional FOLs there must be at least one example (more examples are better). Examples of more than one of the additional FOLs are better still.

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RESEARCH PAPER CHECKLIST: (continued)

- * Figures(s) without a detailed explanation of content. You should not succumb to the temptation of filling in blank space or attempting to increase the length of your paper with meaningless figures (including diagrams, graphics, artwork, and tables). All figures should have a reference in your text (a figure number, a table number, etc.). And your text should include at least one paragraph that explains the figure in terms of the analysis that you're providing. In short, everything in your paper should be relevant.
- * Limited depth of analysis (paper too short, or less than 10 pages of detailed analysis in terms of the Political "Facts Of Life"). For example, a 50 page paper filled with detailed technical descriptions and fancy color figures/pictures of the system (but only 5 pages of political analysis via the FOLs) will not receive a good grade.
- * Too terse of analysis. Remember that your paper should use full sentences with proper grammar--the abbreviated "bulletized" format used in the homework is not appropriate for use in your paper. Please use full sentences with clear explanations. You should not assume that your audience is familiar with either your chosen topic nor the class concepts. You may want to (briefly) describe the Political "Facts Of Life" in your introduction, but you are not required to do so.
- * No (or improper) references, footnotes, or bibliography. Surely you must have used something as a reference in the development of your paper, even if you are a "world expert" on your chosen topic! And please remember to properly cite the SAE 550 class lectures if you use material from those lectures in your paper. Remember also that too many references to uncontrolled Internet sites may detract from your paper's grade.
- * Improper citations for quoted text or copied artwork. Yes, you can "borrow" artwork or a figure or table from another source, but you must properly cite that source! And yes, you can include direct verbiage from another source, but you must properly designate those words in quotations and properly cite that source! (This includes the case where you are the author of the "other source"!) Failure to properly reference copied text will be treated as a violation of academic integrity!

SYLLABUS

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COURSE #: SAE 550

TITLE: SYSTEMS ARCHITECTING AND THE POLITICAL PROCESS.

LECTURER: Dr. Elliot Axelband

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RESEARCH PAPER CHECKLIST: (continued)

- * Excessive amount of quoted text. This includes large amounts of text quoted from papers that you wrote for a different class!
- * Speling errorz (sic). Please remember to do a "Spell Check" before submitting your paper. If a quoted source includes a spelling error, simply place the designation (sic) after that word to show that you weren't the one that made the error. Also remember that most spell-checkers are not a substitute for good editing (for example, deciding whether "threw" or "through" is the correct word in a given context).