

MSE302-05 // WOMEN IN MATHEMATICS, SCIENCE & ENGINEERING (3 units)
CSUN – Fall 2026 (Section #16412) --- Fully Online Course Offering via CANVAS.

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-**Expertise:** Engineering Consulting, Decision-Making/Risk Analysis and Facility Planning. Quality Assurance and Control, Industrial Protection/Safety & Material Control – Specialized in acquiring global certifications for installing and commissioning electronic and pneumatic devices in General (Non-Hazardous) Locations, Hazardous ‘Classified’ Areas and Potentially Explosive Atmospheres.
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Catalog Description

- Prerequisite: Completion of lower-division writing requirement.
- An exploration of the activities, contribution, and struggle of women in mathematics, science, engineering, and related areas and professions such as technology and computer science. Research in individual women engaged in these fields. Investigation of different international, ethic and culture-based practices and perspectives. Consideration of policy-related issue and intervention strategies addressing the participation and achievement of women in pertinent areas of study.
- Available for General Education, Comparative Culture Studies (CCS), Information Competence (IC) and Writing-Intensive (WI).

Course Objectives

This course is reading, writing and research-based; designed to facilitate the students’ abilities to:

- Identify and describe the roles of women in mathematics, science, engineering, and related areas.
- Identify and describe individual women engaged in relevant fields of study and their contribution.
- Describe and analyze the implications of discrimination against women in relevant fields of study.
- Describe and analyze how selected international, ethnic, and culture-based differences shape women’s experiences in the fields of study being considered.
- Explain how policies & intervention strategies affect the participation of women in the pertinent fields.

***** This syllabus is your contract with the CECS, MSEM and the instructor.**
Students must read the syllabus thoroughly and adhere fully to
ALL of the stated terms and guidelines. No Exceptions! ***

NOTE #1: Activate and use your CSUN email address for ALL academic correspondences. Do not use your personal email address to communicate with the instructor. Messages from non-CSUN email addresses will NOT be acknowledged. Instructor will only utilize SOLAR’s email database to communicate with class.

NOTE #2: Refer to the university’s policy on dropping courses and the published deadlines. Students must initiate this process; not faculty. Failure to formally drop a course will result in a “WU” grade which is equivalent to an “F” grade; affecting your cumulative GPA detrimentally.

Textbook Required: "Empowering Women in STEM: Working Together to Inspire The Future."
Edited By Sanya Mathura -- Copyright 2024
Publisher: CRC Press - 1st edition (March 01, 2024)
ISBN-10: 1032678941 & ISBN-13: 978-1032678948

Textbook Synopsis (For The Student's Understanding)

Throughout the globe, STEM careers exist. However, in some countries, particular STEM careers have been male-dominated while in other countries no gender biases exist as it relates to STEM careers. One common trend which occurs throughout the world is that women who are working in these STEM related fields typically leave after about five years. Contrarily, it has also been uncovered that more women stay in these fields when we all work together.

"Empowering Women in STEM: Working Together to Inspire the Future" provides a platform to share the stories of those who have been in STEM careers but have pivoted to other areas by utilizing the STEM skills they learned. It bridges the gap between those who are thinking about entering or leaving STEM careers, along with those who want to encourage others into STEM careers. This book showcases how everyone's journey is different, some may have unexpected twists and turns while others appear to conform to the "normal" rules outlined by society. By offering a front-row seat on a journey that takes many different paths, this book provides advice that can lead to a STEM career with or without having a STEM background. The different roads taken are highlighted to show how everyone's path is unique and how that is okay.

With the upcoming generation constantly looking for ways to "fit in" or be able to identify with role models to help them chart their way forward, this book ensures that they have not just one, but a variety of role models and success stories to relate to. It also offers some key advice which can be applied to any field they choose. In addition to having women and men from across the globe share their stories about various fields, this book also is written for professionals who may be considering a switch of career or deciding to leave STEM, and for university students who are trying to figure out their career choices and paths to take to gain more insight into possible new career goals in STEM.

Supporting Course Material

A selected set of readings and power-point slides are uploaded in the course website and CANVAS module. **This course is reading/writing intensive, and heavily research-based.** In addition to the textbook reading assignments and numerous CANVAS discussion topics (covering diverse and contemporary issues related to the contribution of women in STEM and other societal fields, this course will require of students to perform ample online research and reading relevant periodicals and publications.

Suggested Reading References & Books (Optional: To enrich the student's knowledge)*

- "Gender Differences in Science Careers: The project Access Study" Rutgers University press, 1995.
- "Re- Engineering Female Friendly Science". New York, Teachers College Press, 1997, Sue V. Rosser.
- "The Science of the Glass Ceiling: Academic Women Scientists & the Struggle to Succeed", S. Rosser.
- "Teaching the Majority" - Teachers College Press, New York, 1995, Sue V. Rosser.

*** No assignments will be given from the optional books/references during the semester.**

Lecture Presentations

The PowerPoint presentations are available in the "Courses" section of my CSUN web-page:

<http://www.csun.edu/~ghe59995/courses.html#MSE302>

Additionally, all reading, review and research modules will be posted on CANVAS.

Comparative Cultural Studies (GE Designation: CCS) Course Alignment Matrix

Goal: Students will develop their abilities to express themselves and the knowledge they have obtained through practicing various forms of writing within different disciplinary contexts. Writing intensive courses will build upon the skills gained in the Analytical Reading and Expository Writing section of Basic Skills. In each WI course, students will be required to complete writing assignments totaling a minimum of 2,500 words, cumulatively. The table below indicates the alignment of the course objectives with the Comparative Cultural Studies (CCS) Student Learning Outcomes (SLO's).

At least 2 SLO's must be met.

Course Objectives	CCS SLO #1: Describe and compare different cultures.	CCS SLO #2: Explain how various cultures contribute to the development of our multicultural world.	CCS SLO #3: Describe and explain how race, ethnicity, class, gender, religion, sexuality and other markers of social identity impact life experiences and social relations.	CCS SLO #4: Analyze and explain the deleterious impact and the privileges sustained by racism, sexism, ethnocentrism, classism, homophobia, religious intolerance or stereotyping on all sectors of society.	CCS SLO #5: Demonstrate linguistic and cultural proficiency in a language other than English.
1- Identify and describe the roles of women in mathematics, science, engineering, and related areas.	P	D	P	D	
2- Identify and describe individual women engaged in relevant fields of study and their contribution.	D	D	I	I	
3- Describe and analyze the implications of discrimination against women in relevant fields of study.	I	P	D	D	
4- Describe and analyze how selected international, ethnic, and culture-based differences shape women's experiences in the fields of study being considered.	I	D	D	P	
5- Explain how policies & intervention strategies affect the participation of women in the pertinent fields.	I	D	P	P	

- **I = Introduced (basic level of proficiency is expected).**
- **P = Practiced (proficient/intermediate level of proficiency is expected).**
- **D = Demonstrated (highest level/most advanced level of proficiency is expected).**

Information Competence (Campus GE Designation: IC) Course Alignment Matrix

Goal: Students will progressively develop information competence skills throughout their undergraduate career by developing a basic understanding of information retrieval tools and practices, as well as improving their ability to evaluate and synthesize information ethically.

The table below indicates the alignment of the course objectives with the Information-Competence (IC) Student Learning Outcomes (SLO's). ***All SLO's must be met.***

Course Objectives	IC SLO #1: Determine the nature and extent of information needed.	IC SLO #2: Demonstrate effective search strategies for finding information using a variety of sources and methods.	IC SLO #3: Locate, retrieve and evaluate a variety of relevant information, including print and electronic formats.	IC SLO #4: Organize and synthesize information in order to communicate effectively.	IC SLO #5: Explain the legal and ethical dimensions of the use of information.
1- Identify and describe the roles of women in mathematics, science, engineering, and related areas.	D	D	D	D	P
2- Identify and describe individual women engaged in relevant fields of study and their contribution.	D	P	D	P	P
3- Describe and analyze the implications of discrimination against women in relevant fields of study.	D	P	D	P	I
4- Describe and analyze how selected international, ethnic, and culture-based differences shape women's experiences in the fields of study being considered.	D	P	D	P	I
5- Explain how policies & intervention strategies affect the participation of women in the pertinent fields.	D	P	D	P	I

- **I = Introduced (basic level of proficiency is expected).**
- **P = Practiced (proficient/intermediate level of proficiency is expected).**
- **D = Demonstrated (highest level/most advanced level of proficiency is expected).**

Writing Intensive (GE Designation: WI) Course Alignment Matrix

Goal: Students will develop their abilities to express themselves and the knowledge they have obtained through practicing various forms of writing within different disciplinary contexts. Writing intensive courses will build upon the skills gained in the Analytical Reading and Expository Writing section of Basic Skills. In each WI course, students will be required to complete writing assignments totaling a minimum of 2,500 words, cumulatively. The table below indicates the alignment of the course objectives with the Writing-Intensive (WI) Student Learning Outcomes (SLO's).

All SLO's must be met.

Course Objectives	WI SLO #1: Develop and clearly define their ideas through writing.	WI SLO #2: Ethically integrate sources of various kinds into their writing.	WI SLO #3: Compose texts through drafting, revising, and completing a finished product.	WI SLO #4: Express themselves through their writing by posing questions, making original claims, and coherently structuring complex ideas.	WI SLO #5: Revise their writing for greater cogency and clarity.	WI SLO #6: Utilize adopted communication models and documentation styles of specific disciplines (MLA, APA, Chicago, CBE, etc.) where appropriate.
1- Identify and describe the roles of women in mathematics, science, engineering, and related areas.	D	P	I	D	P	D
2- Identify and describe individual women engaged in relevant fields of study and their contribution.	D	I	D	D	P	D
3- Describe and analyze the implications of discrimination against women in relevant fields of study.	D	P	P	D	I	P
4- Describe and analyze how selected international, ethnic, and culture-based differences shape women's experiences in the fields of study being considered.	I	P	I	P	I	I
5- Explain how policies & intervention strategies affect the participation of women in the pertinent fields.	D	P	I	P	P	P

- **I = Introduced (basic level of proficiency is expected).**
- **P = Practiced (proficient/intermediate level of proficiency is expected).**
- **D = Demonstrated (highest level/most advanced level of proficiency is expected).**

Reading & Writing-Intensive (WI) Expectations:

Students are required to submit written assignments as well as term project reports/presentations, midterm exam and final exam with a minimum of 2,500 words of writing (in total, for all tasks) throughout the semester by each individual student. This translates to approximately 10-12 double-spaced pages. More details about the guidelines and rubrics to evaluate students' writing and overall performance are provided later in the syllabus and on CANVAS.

In MSE 302, numerous graded weekly discussion topics are posted on CANVAS, as follows:

- Two (2) threads per week for a regular 16-week semester, totaling 32.
- Three (3) threads per week for a 10-week summer semester, totaling 30.
- Five (5) threads per week for the greatly-condensed 6-week summer semester, totaling 30.

Each of these discussion topics requires a minimum of 425-450 words per student. Pertaining to only this task, each student (that is participating fully in the course) will be typing at least 12,750 words throughout the applicable semester.

All of the discussion topics are posted on CANVAS. They cover a diverse set of historic and contemporary issues related to the valuable contribution of women in STEM related fields as well as other relevant domains, as well as their plight for equality in the workplace and the need for support and protection. Similarly, the instructor will assign the relevant topics for group term projects.

Some of the topics addressed are as follows: discrimination in the workplace; opportunity prevention versus equity and support in the workplace; multi-cultural, multi-national and multi-racial aspects of women contributions to STEM and other notable fields; gender equity; pay discrimination and equal pay acts in the United States; stereotyping, classism and generalization towards women; various roles of academic institutions in promoting women into STEM fields; empowering women in society; women involvement in the invention (discovery) and innovation (continuous improvement) domains; globalization and challenges in the future.

Important Clarifications:

- The weekly online sessions run from Monday morning (12 am) until Sunday midnight. All students must exert a concentrated effort when contributing to the weekly graded discussion threads, and offer rich insights into the raised topics. A minimum of number of words will be required as an intellectual input to each subject matter raised --- which is noted in each discussion post.
- Generally, all discussion threads are locked after 1 week of its initial posting date. If you miss participating in them within the allotted week of posting, you simply lose the allotted points and won't earn any credit. Make-ups will NOT be granted to anyone whatsoever. Don't miss any assignment, don't wait till the last moment (due date/time) to post your input, don't come up with excuses for not having fulfilled the assignment, AND please don't ask for extensions!!!
- It is prudent that the students remain active and proactive during the semester, adhere to the terms stated in the syllabus, and to do their very best throughout their academic journey.

STANDARD OPERATING PROCEDURES:

1. Class members are expected to maintain personal and professional standards consistent with the Code of Ethics of the national Society of Professional Engineers, the Preamble and Fundamental Canons of which are as follows:

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct. Engineers, in the fulfillment of their professional duties, shall:

- *Hold paramount the safety, health and welfare of the public.*
- *Perform services only in areas of their competence.*
- *Issue public statements only in an objective and truthful manner.*
- *Act for each employer or client as faithful agents or trustees.*
- *Avoid deceptive acts.*
- *Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.*

2. Students must submit **ORIGINAL WORK** only.

3. Students are expected to participate in **ALL** discussion threads and postings on CANVAS.

4. Class members are **responsible** for the course material, reading assignments, presentations and discussions.

5. **Tardy/Late submissions are unacceptable.....NO EXCEPTIONS!**

6. Class members **MUST** always be **considerate & respectful** to their colleagues and to the instructor.

A Note About The Use Of Generative Artificial Intelligence

Generative AI (**GenAI**) tools, such as ChatGPT, are powerful resources that can enhance learning, critical thinking, and problem-solving in engineering management. In this course, students are permitted to use GenAI tools ethically and responsibly to support their coursework, but not to replace critical thinking or domain knowledge. Students need to maintain domain knowledge and critical thinking skills to be able to evaluate the output provided to them from the GenAI tool they are using, as ultimately the student is responsible for the output from the GenAI tool that they are including in their course assignments. If permitted by the faculty member to use GenAI in the course, students must adhere to the following guidelines:

1. Transparency & Attribution: If students use GenAI to generate content for assignments, projects, or discussions, they have to clearly disclose its use and cite the tool appropriately. Please make sure to look up how to cite content from GenAI tools.

2. Academic Integrity: Submitting AI-generated work as your own without meaningful engagement, critical evaluation, or modification violates academic integrity policies. AI should assist your work, not replace original thought. GenAI should be used in a supportive and collaborative manner only, but it is not meant to replace the student developing a problem-solving thought process.

3. Verification of output provided by the GenAI tool: AI-generated content may contain inaccuracies. Students should always fact-check and critically evaluate outputs before using them in academic work.

4. Check extent to which GenAI is permitted to be used: The GenAI tool may not be allowed to be used for all the assignments – hence the student should make sure to verify with the instructor as to which assignments they can or cannot use it for.

COURSE PLAN

((Depending on the progress of the course material,
the dates/topics/assignments/exams may change if deemed necessary.))

- **Throughout the Semester** --- Mandatory Contribution to the Weekly Discussions on CANVAS (15%).

-- **Week 7 or 8:** Midterm Exam (30%) - CANVAS /// Selected material to be announced on CANVAS.
Format: True/False, Multiple Choice and 2-3 Essay questions (*requiring 200-225 words each*).

The SPECIFIC Date/Time slot will be announced on CANVAS (ALL students must take the exam synchronously).

--- **Week 15:** Group Power Point Presentation File (18%) and the *Self & Peer Evaluation Form Due* (2%)

**The instructor will assign relevant topics for the group term projects, via CANVAS.
It will comprise at least 2,500 words to be divided equally amongst all group members.**

Important Notes:

- a) Students who do not submit the SPEF shall forfeit the +/- sign in the overall course grade.
- b) By not contributing to the group term project, the student will then receive 0 / 20 points. No EXCEPTIONS!

--- **Week 16:** Final Exam (35%) - CANVAS ((*Comprehensive Material*))
Format: True/False, Multiple Choice, and 2-3 Essay questions (*requiring 200-225 words each*).

The SPECIFIC Date/Time slot will be announced on CANVAS (ALL students must take the exam synchronously).

NOTE: A ZOOM link will be provided for the midterm & final exams.

**Your camera must be turned on during the entire exam. Students who do not comply
will be blocked from taking the exam and make-up attempts will not be granted.**

IMPORTANT NOTES

Note #1: Once the exams are set and announced, students will have to work out their schedules accordingly in order to take the exams in a timely manner and not to miss them. The 2 term exams will be given on either Fridays or Saturdays – for a 120-150 minutes duration. This will ensure that all students have finished their school day without the restriction of evening classes, Ample time will be given to the class so that you prepare well for the 2 fully-online exams.

These are the ONLY two (2) date/time slots that are pre-set and mandated (required) in the entire semester --- ALL students must adhere to the announcements that will be made timely. If you miss taking an exam, you simply lose it. Unless exigent circumstances (that are documented and can be validated) occur, no make-up exams shall be granted to anyone ---- NO EXCEPTIONS WHATSOEVER. Once the exam is announced on CANVAS, it is your obligation to mark your calendar to be available during the allotted date/time.

Note#2: The weekly lecture material will be made available to all students via specific hyperlinks and postings on CANVAS.

Topics Covered In The Course

Weeks 1-4 / Part I: Course familiarity and Introduction to Women in Mathematics, Science, Engineering & Technology from antiquity to present. **Read Chapters 1 through 6 of the textbook: “Empowering Women in STEM.”** Review the following modules:

- 1-1 Early women scientists and engineers.
- 1-2 Women and science in the ancient world.
- 1-3 Women’s education in mathematics, science & engineering.
- 1-4 Women’s work in science, mathematics, engineering & related areas.

Weeks 5-8 / Part II: Study of selected individual women & their professional contributions to Mathematics, Science, Engineering & related areas. **Read Chapters 7 through 12 of the textbook: “Empowering Women in STEM.”** Review the following modules:

- 2-1 Rosalind Elsie Franklin
- 2-2 Jewel Isadora Plummer Cobb
- 2-3 Sheila Evans Widnall
- 2-4 Barbara McClintock
- 2-5 Marie Curie
- 2-6 Christine Ladd- Franklin
- 2-7 Lillian Miller Gilbreth

Weeks 9-12 / Part III: Consideration of social norms, professional practices and legal systems, and their implications regarding the marginalization of women in mathematics, science, engineering related areas and professions such as computer science. **Read Chapters 13 through 17 of the textbook: “Empowering Women in STEM.”** Review the following modules:

- 3-1 How does the image of Engineering affect recruitment & retention?
- 3-2 Canadian attitudes toward the employment of women.
- 3-3 Access & Merit: A debate on engineering women in science & engineering in Canada.
- 3-4 Barriers to women’s participation in science Mathematics and Engineering.
- 3-5 Affirmative action; Controversy & opportunity.
- 3-6 Mathematicians & Engineering; limits on women and the field.

Weeks 13-16 / Part IV: Investigation of policies & policy- related issues, and experimental intervention strategies and their effects. Identification & implementation of relevant exploratory research. **Read Chapters 18 through 22 of the textbook: “Empowering Women in STEM.”** Review the following modules:

- 4-1 The 3Rs(Recruitment, Retention, Returning.
- 4-2 The Re-entering Woman Scientist.
- 4-3 Recruitment and Advancement: Women in Science and Engineering.
- 4-4 Beyond Gender Schemes, Improving the advancement of women in Academia.
- 4-5 Working for change.

COURSE EVALUATION / GRADE SCALE

(Refer to the last page of the syllabus for more information on grades)

(15 pts) - Throughout the Semester -- Mandatory Contribution to the Weekly Discussions on CANVAS.

Important Note: The weekly discussions are locked in a 1-week period -- If you miss it, you lose it!!

(20 pts) - Group Term Project: Research & PPT Presentation (18%) --- (to be announced).

Research based projects requiring a PPT presentation -- assigned by the instructor).

Submittal of the Self & Peer Evaluation Form (SPEF) is MANDATORY (2%).

You can download the SPEF via: <http://www.csun.edu/~ghe59995/courses.html#MSE302>

It will also be posted on the course page on CANVAS.

Important Notes: 1- By not submitting the SPEF, the student will forfeit the +/- sign for the course grade.

2- By not contributing to the group term project, the student will then receive 0/20 points. No EXCEPTIONS !!!

(30 pts) - Midterm Exam (specific material - TBA) -- based on class discussions, research and reading assignments.

Format: True/False, Multiple Choice, & Essay Questions.

Via CANVAS

(35 pts) - Final Exam (comprehensive) -- based on class discussions, research and reading assignments.

Format: True/False, Multiple Choice, Essay Questions.

Via CANVAS

Letter-Grade Scale (Curving of grades will NOT be utilized!):

$A \geq 90$

$88 \leq A- < 90$

$85 \leq B+ < 88$

$80 \leq B < 85$

$78 \leq B- < 80$

$75 \leq C+ < 78$

$70 \leq C < 75$

$68 \leq C- < 70$

$60 \leq D < 68$

$F < 60$

**** IMPORTANT NOTE: Plagiarism will NOT be tolerated whatsoever! ****

GROUP TERM PROJECT GUIDELINES:

- Groups will be randomly assembled to consist of 4-6 members each.
- Topics for the group term project will be assigned by the instructor via CANVAS. It will comprise 2,400-2500 words which are to be divided equally amongst all group members. Each student will write 400-600 words depending on the size of the group.
- The term project is worth 20% of the course overall grade (PPT=18%, SPEF=2%).
- All class members MUST participate in the research task & creation of the PPT file.
- Physical or virtual presentations by the groups are NOT required -- Only the PPT file.
- The mandatory “Self & Peer Evaluation Form” (posted on CANVAS and the course website) is due on the date posted on CANVAS. Submitting the SPEF (2%) is mandatory by all class members. The form must be “typed” and not hand-written or scanned. Students will individually and confidentially submit the form in as a PDF. A special link will be made available in the course module.
- The complete Project PPT file (18%) is due on the date posted on CANVAS. Each group leader/facilitator shall upload the PPT file via a special link to be made available in the course module on CANVAS (one file upload per group!).
- The PPT must contain **40** slides precisely (no more or less, not counting the cover page & the references page) and should be done professionally. Each slide must have 8-10 bullet points with brief explanations. The cover page must include the names and clear facial pictures of all group members. The presentation must be creative, informative, rich, insightful, credible and reader-friendly along with nice graphics. Additional information will be posted on CANVAS in reference to the desired PPT format. A detailed written report is not required --- just the professionally-done PPT file will suffice.
- All group members must participate fully and contribute equitably to the term project. The SPEF’s will reflect the actual performance of each group member.
- It is a fundamental principle of academic integrity that the authorship of the intellectual content of works submitted as part of a class assignment must be fairly represented. Contributions of language and thought must be appropriately credited.

Submissions that do not conform to the above format will not be accepted.

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Academic Dishonesty

Academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form at California State University Northridge. All students involved in academic dishonesty will be disciplined in accordance with university regulations and procedures. Discipline may include suspension and/or expulsion from the University.

“Cheating or plagiarism in connection with an academic program at a CSU campus is listed in Section 41301, Title 5, California Code of Regulations as an offense for which a student may be expelled, suspended or given a less severe disciplinary sanction.

Academic dishonesty is an especially serious offense and diminishes the quality of scholarship and defrauds those who depend on the integrity of the University’s programs.” Please consult university policy regarding plagiarism and the consequences.

<https://catalog.csun.edu/policies/academic-dishonesty/>

Any student caught cheating or plagiarizing in this class will receive a zero for the assignment and may be referred to the dean’s office for additional consequences.

Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person. The instructor reserves the right to submit your papers to turnitin.com for identifying papers containing unoriginal material.

PowerPoint Presentations Scoring Rubric

*** For Online Courses -- Submittals via CANVAS ***

	Excellent (4)	Good (3)	Adequate (2)	Weak (1)
RESPONSE TO ASSIGNMENT: PowerPoint presentations are expected to completely address the topic and requirements set forth in the assignment, whereby the contents are very appropriate for the intended audience.	The presentation responds to the assignment and addresses the topic and all requirements, at an appropriate technical level for the intended audience.	The presentation responds to the assignment and addresses the topic, but has minor weaknesses with respect to some of the requirements and/or appropriate technical level.	The presentation responds to the assignment and addresses the topic, but has significant weaknesses with respect to some of the requirements and/or appropriate technical level.	The presentation does not respond to many of the requirements of the assignment, and/or is poorly-tailored for the intended audience.
ANALYSIS & DISCUSSION: PowerPoint presentations are expected to provide an appropriate level of analysis, discussion and evaluation as required and targeted by the assignment.	Presented material is completely analyzed and evaluated, providing support for the main points with validated reasoning, discussion of alternatives, explanations, and examples as appropriate.	Presented material is analyzed and evaluated and appropriate reasons, discussion of alternatives, explanations, and examples are given for most of the main points.	Presented material is analyzed and evaluated at a reasonable level but is not used effectively to support many of the main points.	The depth of analysis and evaluation of the presented material is not sufficient, and the discussion contains unnecessary or trivial material.
ORGANIZATION: PowerPoint presentations are expected to be well-organized in overall structure, beginning with a clear statement of the problem and ending with a clear conclusion and recommendations if applicable.	The presentation is well-structured; its organization contributes to its purpose. The problem is clearly stated and technical content is well-ordered for clarity in delivery.	The presentation is generally well-structured, with only a few flaws in overall organization.	The presentation has a defined structure, but the organization is not optimal for supporting the presentation's content.	The presentation is poorly-structured; organizational flaws undermine its effectiveness and clarity.
STYLE/Form & FORMAT: PowerPoint presentations are expected to be stylistically effective – that is, to consist of visual aids with well-chosen words and graphics which complement the primary objective of the assigned project.	The visual aids (e.g. PowerPoint slides) are informative, well-designed and easy to read. The number of slides is consistent with the expected and accepted range.	The visual aids are informative and generally supportive of the presentation, but could be improved to more effectively complement the project's objectives.	The visual aids are generally supportive of the presentation, but some of them are difficult to read, too busy, and/or not necessary	Visual aids are not designed to effectively to convey the information desired by the target market and audience.
FILE PACKAGING & CONTENT DELIVERY SKILLS: PowerPoint presentations are expected to use an effective narration/writing style which exhibits enthusiasm, generates interest in the audience, and communicates all of the intended and desired information.	The slides are professionally-prepared while aiming to establish a concentrated connection with, and follow-up by, the targeted audience.	The presentation is well-prepared with the desired contents along with good visual aids, but may occasionally stray from topic and/or have other deficiencies in the layout.	The presentation is reasonably-prepared but noticeably weak at the provided visuals, thus not able to communicate all of the intended information.	The inability to present valued research and offer proper analysis, is quite apparent throughout the file/study preparation.
CONCLUSIONS: PowerPoint presentations are expected to draw appropriate conclusions and recommendations based on merited facts.	Key points are clearly re-stated at the end so that the audience clearly understands the purpose of the technical work.	The presentation has a conclusion but some of the key points are not highlighted effectively.	The presentation has a brief conclusion but is not substantial in content.	The presentation package just seems to end abruptly without offering a coherent summation for the intended audience and/or target market.

Professor G. Elias: Self & Peer Evaluation Form (SPEF) - (**MANDATORY for the group term project**)
Confidential – Typed & completed form to be submitted to the instructor via CANVAS.
Due Date: Check the syllabus (Late submittals are not accepted – **NO EXCEPTIONS!**)

Evaluator (your) Name: _____ **Task:** _____

1. Overall, how effectively and efficiently did your team work together on the assigned **project**?

2. How many of your team members participated **actively** and **proactively** in the development of the assigned **project** ---- most of the time ---- throughout the semester?

3. Please provide **one** specific example of something that you learned from the team that you probably would **not** have learned working alone.

4. Please provide **one** specific example of something the other team members learned from you that they probably would **not** have learned otherwise.

5. Please provide **one** specific & viable suggestion by which the team could have improved its **overall** performance.

6. **Including yourself**, rate the contributions of each team member to the **project** with respect to **QUANTITY**:

(For each member, keep only the chosen rating and erase the rest of the numbers!)

<u>Team Member Name</u>		<u>Low</u>			<u>High</u>	
1- _____	0	1	2	3	4	5
2- _____	0	1	2	3	4	5
3- _____	0	1	2	3	4	5
4- _____	0	1	2	3	4	5
5- _____	0	1	2	3	4	5
6- _____	0	1	2	3	4	5

7. **Including yourself**, rate the contributions of each team member to the **project** with respect to **QUALITY**:

(For each member, keep only the chosen rating and erase the rest of the numbers!)

<u>Team Member Name</u>		<u>Low</u>			<u>High</u>	
1- _____	0	1	2	3	4	5
2- _____	0	1	2	3	4	5
3- _____	0	1	2	3	4	5
4- _____	0	1	2	3	4	5
5- _____	0	1	2	3	4	5
6- _____	0	1	2	3	4	5

8. **Additional comments** – **Please provide your objective observations and suggestions:**

For Your Information: Grade Evaluation Criterion

- * The "A" grade range (A to A-) is reserved for work that is exceptional. This means that it (1) is professional and reflects the writer's/s' careful consideration of audience and purpose; (2) shows perfect to near-perfect understanding of the necessary concepts and analytical tasks; (3) where appropriate, it shows the capacity to think creatively or to see implications beyond the immediate scope of the question; (4) contains all necessary information (invention); (5) is arranged in a logical manner (6), is memorable; (7) delivery is visually appealing; and (8) is free of mechanical errors and is formatted as specified. Work must be flawless to attain an A/A-. Work with minor flaws that is nonetheless excellent in other ways will earn an A-.
- * The "B" grade range means that the work is acceptable at the graduate level (B- range) to very good (B/B+). This work satisfies all (B+) or most (B/B-) of the requirements of the question & research tasks, shows the capability to think beyond the task by relating it to other areas of knowledge in or outside of the course; is neatly presented and shows above-average use of academic English. If the work is decently written, is formatted basically correctly, and covers most of the required content, but has several minor flaws or one major flaw, the grade is B-.
- * The "C" grade range means that the work, while covering much of the required ground, does not show graduate-level analytic and expressive ability. That is, major and minor items may be missing or incorrect; and while the language may communicate most points adequately, it does not qualify as above-average academic work.
- * The "D" grade range shows that the work does not, overall, achieve an acceptable level of coverage of the requirements AND/OR the language is insufficient to make the writer's points understandable to the reader. The content may be either incorrect to an unacceptable degree, or very incomplete.
- * A grade of "F" indicates that so little of the required content is covered that grading the paper is an exercise in futility. It may mean that very major points have clearly not been grasped or have been misunderstood by the student. An F may also indicate that the ideas are expressed in such a way that they are not at all understandable to the reader. A grade of F is also awarded when assigned work is not handed in, or not handed in by the set deadline.