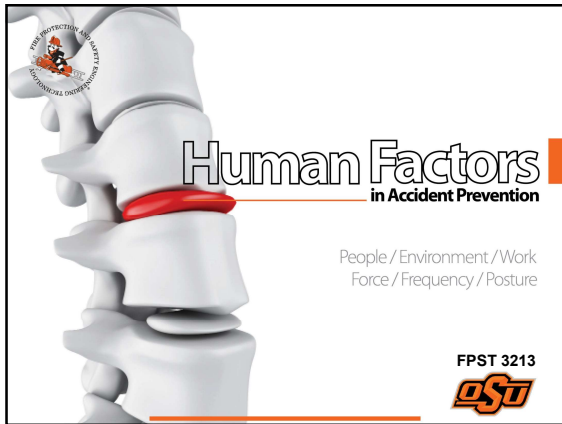
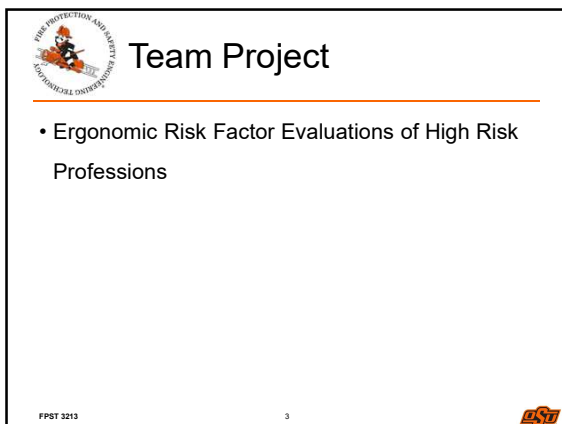



Team Project











Team Project


Ergonomic work design is an important aspect in prevention of injuries, but sometimes the work tasks cannot be modified due to operational, engineering, or economic constraints.


FPST 3213 4 



Team Project


- The risks discussed in the paper and presentation should focus on **Ergonomic or Human Factor risks only**.


FPST 3213 5 



Team Project


- Review of available Injury and Illness data for the occupation
- Review of common physical tasks associated with the profession
- Review of ergonomic risk factors associated with the tasks
- Suggested ergonomic controls that could be implemented to either eliminate or mitigate the risks
- Discussion of costs vs benefit of implementing controls vs. doing nothing


FPST 3213 6 



Team Project

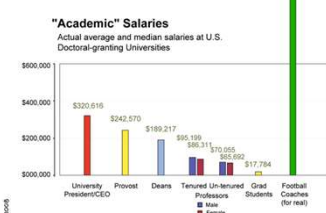
- Review of available Injury and Illness data for the occupation: All team members


FPST 3213
7





"Academic" Salaries

Actual average and median salaries at U.S. Doctoral-granting Universities




FPST 3213
8






The Compelling Display of Health & Safety Information to Achieve Desired Decision Making

Robert Emery, DrPH, CHP, CIH, CSP, RBP, CHMM, CPP, ARM
Assistant Vice President for Safety, Health, Environment & Risk Management
The University of Texas Health Science Center at Houston
Associate Professor of Occupational Health
The University of Texas School of Public Health




THE UNIVERSITY OF TEXAS
HEALTH SCIENCE CENTER AT HOUSTON

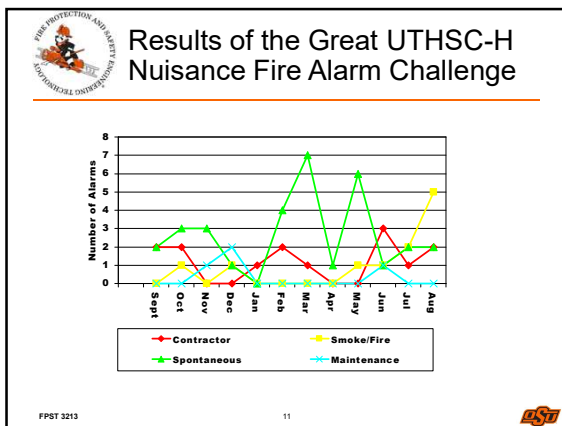


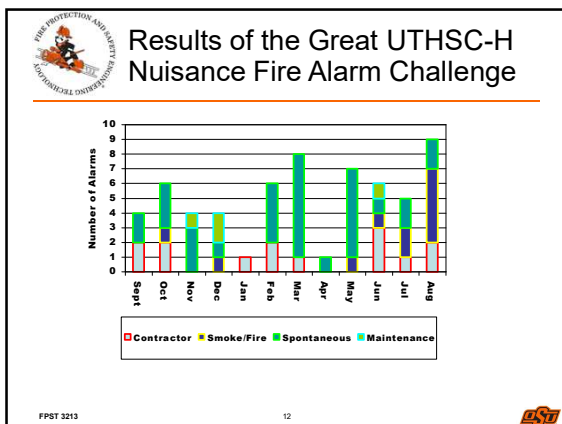


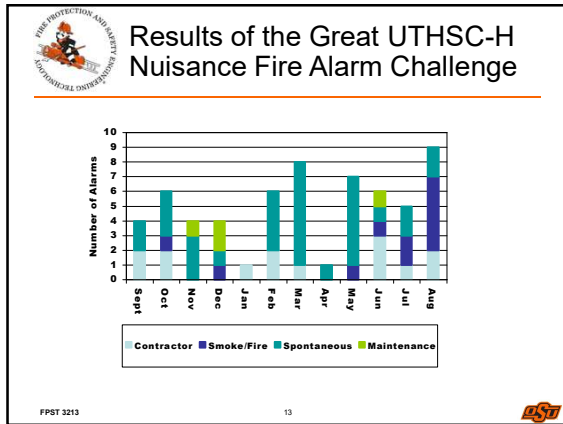
Achieving EH&S Data Display Excellence

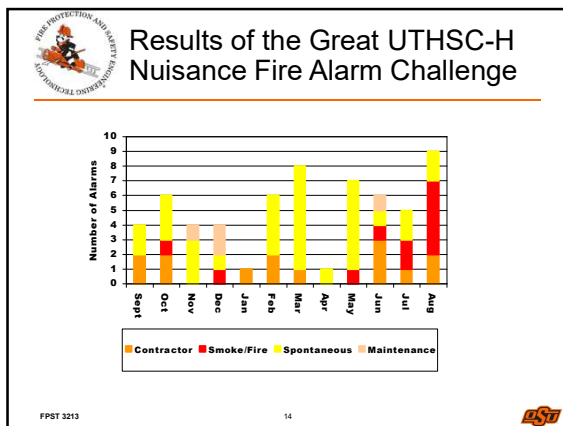
- The presentation of complex ideas and concepts in ways that are
 - Clear
 - Precise
 - Efficient

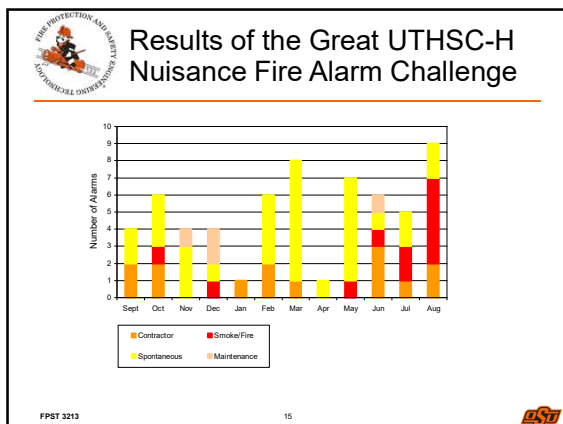
FPST 3213
10




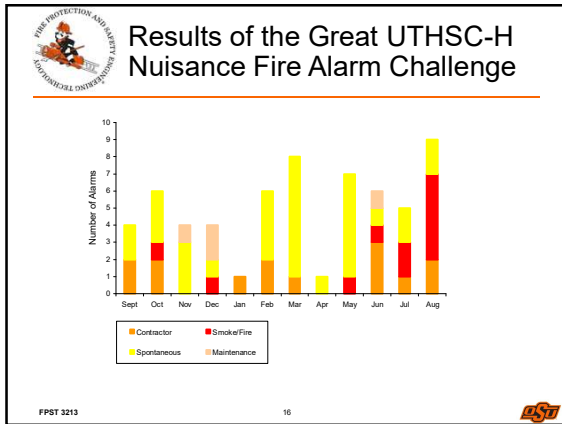


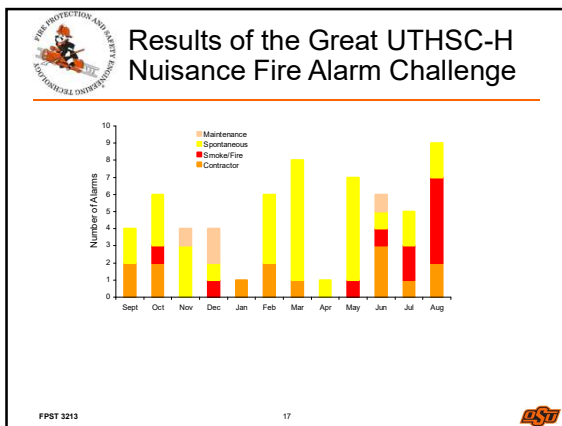


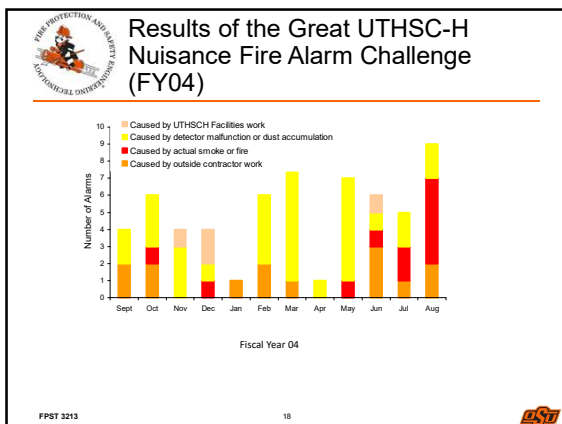


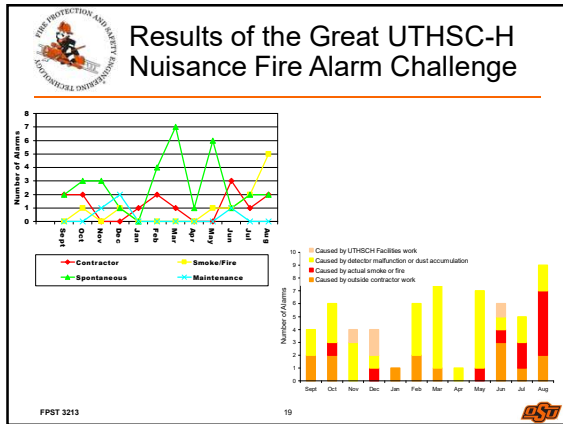


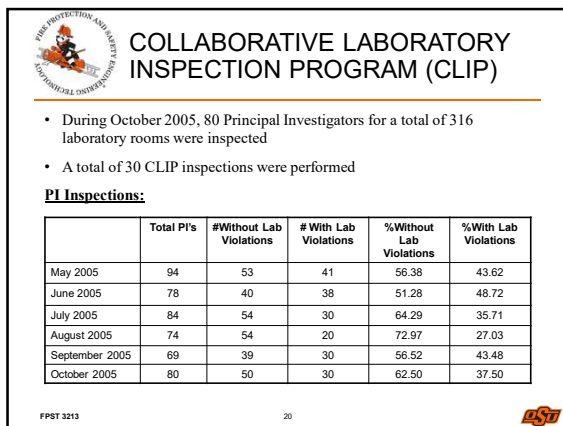
Team Project

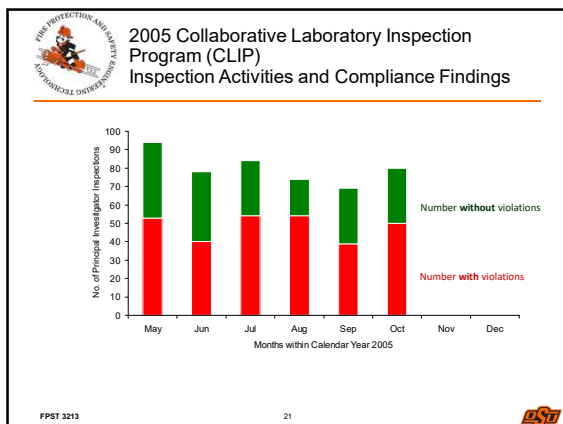




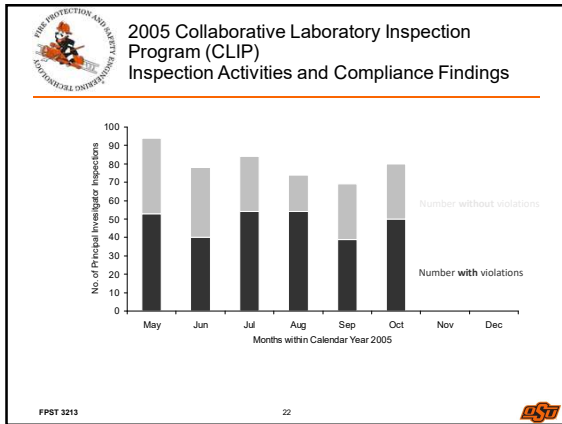


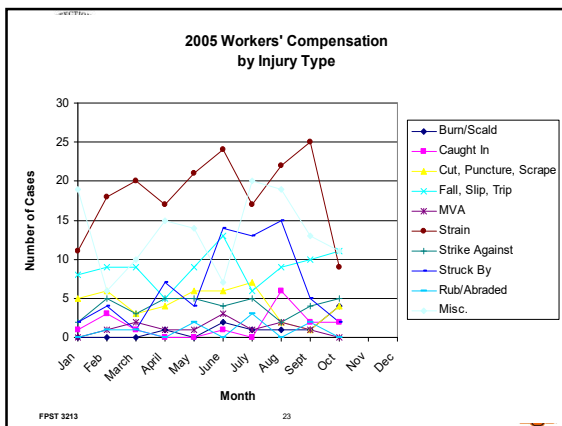


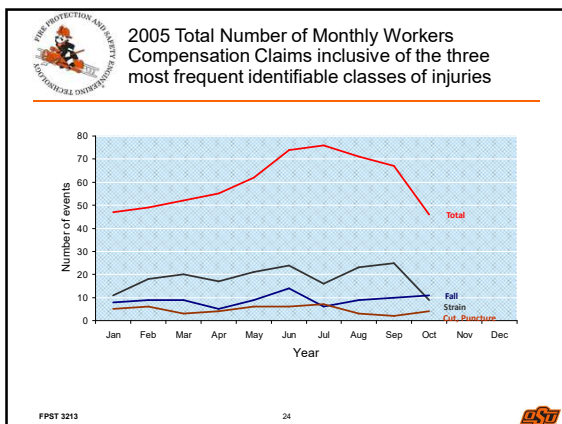




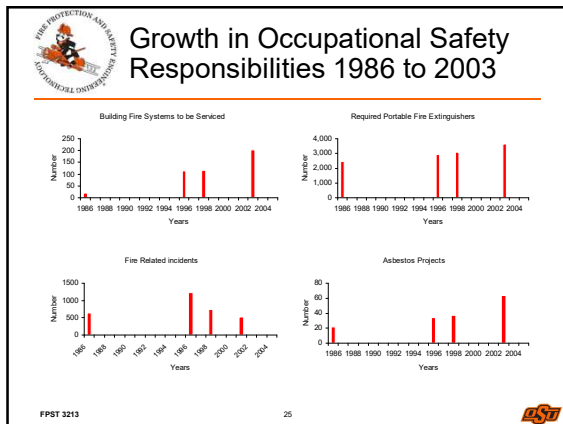
Team Project

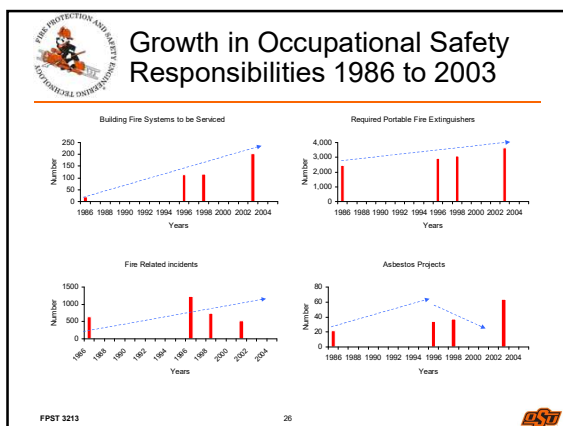








Team Project






 **Team Project**

- Review of common physical tasks associated with the profession: All team members


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Team Project

One task per student:

- Review of ergonomic risk factors associated with the tasks
- Suggested ergonomic controls that could be implemented to either eliminate or mitigate the risks
- Discussion of costs vs benefit of implementing controls vs. doing nothing


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Example

Task

Flipping burgers with a weighted spatula



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Flipping burgers with a weighted spatula


- Review of ergonomic risk factors associated with the task

Hazards

Carrying the load of both burgers and the weighted spatula with one wrist can lead to strain and tendonitis/MSDs



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Flipping burgers with a weighted spatula

- Suggested ergonomic controls that could be implemented to either eliminate or mitigate the risks

Proposed controls

- Rotate the worker every 4 hours (administrative control)
- Give the worker a wrist brace (PPE)



FPST 321331



Flipping burgers with a weighted spatula


- Discussion of costs vs benefit of implementing controls vs. doing nothing

Cost/Benefit

- Cost of wrist brace: \$20
- Cost of rotating employee: pay the worker's replacement \$10/hr, the same as the worker
- Cost of doing nothing: \$0 initially
- If worker gets carpal tunnel: worker's comp is \$267 per week while they are away from work



FPST 321332




Submissions


The first submission is due by

March 22th by 11:59pm.

You will need to submit **two** documents for the first submission:

- An outline of your case study.
- List of tasks that will be analyzed and the name of the student assigned to a particular task.

FPST 321333




Submissions

You will submit your final report by **May 2, by 11:59pm.**


The written report must be typewritten; at least seven pages of 11-point font text, double spaced with one-inch margins on all sides. Drawings and other supporting materials must be appended. The seven pages must not include appendices or the bibliography. The report should cite at least three peer reviewed journal articles or government research findings in a reference list. Write the paper in active voice and in a manner that no section is identifiable as being written by a different author.

All group members should contribute equally to all parts of the assignment.




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THE PROFESSIONAL AND ANALYTICAL SKILLS TECHNOLOGY				
Rubric				
Criteria				
Content	Exemplary (3)	Competent (2)	Fair (1)	Poor (0)
Content of and Purpose for Writing Includes consideration of audience, purpose, and the rhetorical situation underlying the writing task(s).	Investigates a foreign audience, purpose, and the rhetorical situation underlying the writing task(s) and locates all elements of the rhetorical situation.	Investigates audience, purpose, and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates audience and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates rhetorical situation, audience, and the rhetorical situation and locates all elements of the rhetorical situation.
Content Development – Inquiry and Thesis Data Logical presentation of evidence that addresses the topic.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.
Content Development – Physical Facts Logical presentation of evidence that addresses the topic.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.
Content Development – Risk Factors Logical presentation of evidence that addresses the topic.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.
Content Development – Ergonomic Controls Logical presentation of evidence that addresses the topic.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.
Content Development – Costs to Benefit Logical presentation of evidence that addresses the topic.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.	Compelling content to stimulate inquiry and understanding, containing the writer's understanding and purpose for the task.
Genre and Discourse Conventions Formal, informal style chosen in the expectations for the audience. (Following APA format/PSPS/writing guide, not required)	Formal and accomplished manner of writing with a specific audience, purpose, and rhetorical situation, including organization, punctuation, and syntax, chosen.	Formal and accomplished manner of writing with a specific audience, purpose, and rhetorical situation, including organization, punctuation, and syntax, chosen.	Formal and accomplished manner of writing with a specific audience, purpose, and rhetorical situation, including organization, punctuation, and syntax, chosen.	Formal and accomplished manner of writing with a specific audience, purpose, and rhetorical situation, including organization, punctuation, and syntax, chosen.
Source and Evidence Directions for how to access (at least three), not-for-profit, improve (local, national, improve international)	Investigates a foreign audience, purpose, and the rhetorical situation underlying the writing task(s) and locates all elements of the rhetorical situation.	Investigates audience, purpose, and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates audience and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates rhetorical situation, audience, and the rhetorical situation and locates all elements of the rhetorical situation.
Organization Sources for how to access (at least three), not-for-profit, improve (local, national, improve international)	Investigates a foreign audience, purpose, and the rhetorical situation underlying the writing task(s) and locates all elements of the rhetorical situation.	Investigates audience, purpose, and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates audience and the rhetorical situation and locates all elements of the rhetorical situation.	Investigates rhetorical situation, audience, and the rhetorical situation and locates all elements of the rhetorical situation.

 Presentation

You will present your research to the class in a presentation during **May 10 or May 17** lectures. Presentations should be **15 minutes** in length and of professional quality (including business casual dress).


You are required to submit your presentation by **May 6 by 11:59 pm**.

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	Criteria	Exemplary (4)	Competent (3)	Fair (2)	Poor (1)
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is easily and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not clearly and consistently observable within the presentation.
Language	Language choices are thoughtful, understandable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are understandable and generally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.	Language choices are unclear and do not support the effectiveness of the presentation. Language in presentation is not appropriate to audience.	Language choices are unclear and do not support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal representation) make the presentation compelling, and speaker appears confident.	Delivery techniques (posture, gesture, eye contact, and vocal representation) make the presentation interesting, and speaker appears confident.	Delivery techniques (posture, gesture, eye contact, and vocal representation) make the presentation understandable, and speaker appears confident.	Delivery techniques (posture, gesture, eye contact, and vocal representation) make the presentation uninteresting, and speaker appears unconfident.	Delivery techniques (posture, gesture, eye contact, and vocal representation) make the presentation uninteresting, and speaker appears unconfident.
Supporting Material	A variety of types of supporting materials (examples, statistics, illustrations, quotations from relevant authority) make appropriate references to information or analyses that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (examples, statistics, illustrations, quotations from relevant authority) make appropriate references to information or analyses that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (examples, statistics, illustrations, quotations from relevant authority) make appropriate references to information or analyses that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (examples, statistics, illustrations, quotations from relevant authority) make appropriate references to information or analyses that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (examples, statistics, illustrations, quotations from relevant authority) make appropriate references to information or analyses that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message - Injury and Stress data	Central message is compelling (precisely stated, appropriately sequenced, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable, but is not often repeated and is not memorable.	Central message can be identified, but is not explicitly stated in the presentation.	Central message can be identified, but is not explicitly stated in the presentation.
Central Message - Physical tasks	Central message is compelling (precisely stated, appropriately sequenced, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable, but is not often repeated and is not memorable.	Central message can be identified, but is not explicitly stated in the presentation.	Central message can be identified, but is not explicitly stated in the presentation.
Central Message - Ergonomic Risk Factors	Central message is compelling (precisely stated, appropriately sequenced, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable, but is not often repeated and is not memorable.	Central message can be identified, but is not explicitly stated in the presentation.	Central message can be identified, but is not explicitly stated in the presentation.
Central Message - Suggested ergonomic controls	Central message is compelling (precisely stated, appropriately sequenced, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable, but is not often repeated and is not memorable.	Central message can be identified, but is not explicitly stated in the presentation.	Central message can be identified, but is not explicitly stated in the presentation.
Central Message - Costs vs. benefit	Central message is compelling (precisely stated, appropriately sequenced, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable, but is not often repeated and is not memorable.	Central message can be identified, but is not explicitly stated in the presentation.	Central message can be identified, but is not explicitly stated in the presentation.
Presentation Design		Template, slide fonts, images, amount of information in the slides			

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Grading	
Team Project Report	20%
• First submission	4%
• Final submission	16%
Presentation	10%
Group evaluation	5%
You will be responsible for an individual evaluation for each of your group members for the final submission. Include a description of the contributions of everyone in the group.	
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Team Project	
<u>Industry Specific Ergonomic Control Plan</u>	
1. Transportation	6. Steel manufacturing industry
2. Toys manufacturing industry	7. Textile manufacturing industry
3. Automobile manufacturing industry	8. Electronics manufacturing industry
4. Cement manufacturing industry	9. Electricity production
5. Chemical fertilizers manufacturing industry	10. Rice production
	11. Seafood production
FPST 3213	39


Team Project



Team Project - Groups


Industry	Members
Transportation	Haokai Huang Ziheng Fang Zitai Zhou Jiachen Wang Liu Sha
Toys manufacturing industry	Junping Jiang Yujia Jiang Tianxiang Jia Tongyuan Zhang Jiaxin Li


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Team Project - Groups


Industry	Members
Automobile manufacturing industry	Lifan Lu Xinyu Liu Xuanchen Li Haoyu Wang Haijing Wen
Cement manufacturing industry	Zihan Qiu Kejie Zhou Zihao Han Zhongpei Wang Wenhao Hu

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Team Project - Groups

Industry	Members
Chemical fertilizers manufacturing industry	Wanyun Rao Zhiyuan Sun Zhihan Huang Liuyi Bian Zhuoxin Luo
Steel manufacturing industry	Haijia Tang Xinhao Liu Ruohan Guo Changgen Xie Minghao Wang


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Team Project



Team Project - Groups


Industry	Members
Textile manufacturing industry	Zhenwei Wu Yu Cui Hongtu Zhou Shiyi Zhu Ruiyi Tang
Electronics manufacturing industry	Lili Wang Lanling Wang Yuting Wu Yilan Xu Yufeng Zheng


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Team Project - Groups


Industry	Members
Electricity production	Xintao Yang Wenqi Song Meihao Cheng Zeyin Lin Yuchen Zhou
Rice production	Qinann Zeng Mingxun Zhou Qingyao Shi Zhifeng Zhang Xuefeng Han

FPST 321344




Team Project - Groups

Industry	Members
Seafood production	Qihang Zhou Junkan Fan Zhengjie Jiang Xinwei Fu

FPST 321345

Team Project





To do list

The first submission is due by
March 22by 11:59pm

You will need to submit **two** documents for the first submission:


1. An outline of your case study.
2. List of tasks that will be analyzed and the name of the student assigned to a particular task.


FPST 321346



Outline

Topic	Possible source	Responsible	Due date
Introduction			
Data analysis			

FPST 321347



Task

Task 1	Basic description	Responsible
Cooking burgers	Flipping burgers with a weighted spatula	Student 1

FPST 321348