UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: College of Science & Engineering

Type of Change requested:
- [ ] Course number(s)
- [ ] Course prerequisite(s)
- [ ] Course title
- [x] Course description
- [ ] Drop course(s)
- [ ] Drop program(s)
- [ ] Program description
- [ ] Program requirements

Semester and year change(s) take effect: Fall 2022

Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:
Specify P/NC-only grade basis.

Programs Only
Program Name: ____________________________

Current Code: __________ Proposed New Code (list 2): __________ or __________
(ex: INDE-BFA)

Can have second major: ____Yes ____No

Current CIP Code: ________________
Does the change require a new or change in CIP code? ____Yes ____No

If yes, what is the proposed CIP code?
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56

Catalog copy

Present catalog copy (paste-up from catalog is acceptable).

SCIE 20601 Introduction to Pre-Health
This course introduces new pre-health students to the concepts of readiness and expectations as a TCU pre-health student. Students will learn about resources available from the Pre-health Professions Institute, activities and life experiences that will best prepare them for their undergraduate pre-health career, and how to foster a community of support with their peers.

Proposed change(s). (Include exact catalog copy as desired. Underline changes)

SCIE 20601 Introduction to Pre-Health
This course introduces new pre-health students to the concepts of readiness and expectations as a TCU pre-health student. Students will learn about resources available from the Pre-health Professions Institute, activities and life experiences that will best prepare them for their undergraduate pre-health career, and how to foster a community of support with their peers. Pass/No Credit grade basis only.
1. What is the justification for the change(s) requested?
P/NC-only was specified in the syllabus but was not included in the catalog description

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.
N/A

3. **Faculty Resources:** How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.
N/A

4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - YES
   - NO
   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).
N/A

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.
N/A

_____________________________
Approval signature of chairperson of originating unit

Revised 02/2020
AGENDA

Consent
Department of Mathematics
MATH 50623 – drop course
MATH 60633 – drop course
MS Applied Math Option – change requirements

Regular
Department of Environmental Science
MS, MA, MEM – change requirements

Department of Mathematics
Actuarial BA & BS – change title and requirements

Department of Psychology
CHDV 50933 – new course

College of Science & Engineering
SCIE 20601 – new course
GRADUATE COUNCIL: PROPOSAL FOR CHANGE IN EXISTING COURSE/PROGRAM

Originating Unit: Math

Type of action: change in course change in program

Type of change requested:
- Number
- Course Title
- Description
- Prerequisite(s) Program
- Drop Course
- Requirements
- Drop Program*
- Other, please specify

*A SACSCOC Drop Program Justification form will need to be completed

Semester and year course/program will take effect: Fall 2022

Course instructional methodology:

course component types: ugradcouncil.tcu.edu/forms/Course Component Types.pdf

Current name: Mathematics, MS, Applied Mathematics Option

Proposed name:

Appropriate computer abbreviation (30 spaces or less):

Programs Only

Current program code: MATH-MS

(ex:EDCE-PHД)

Proposed code (list 2) or

Current CIP code: 27.0101

Does the change require a new or change in CIP code: Yes No

If yes, what is the proposed new CIP code:

*for reference please visit: nces.ed.gov/ipeds/cipcode/resources.aspx?y=56

Is the program already considered TCU STEM: Yes No

Does the change include a request to be a TCU STEM program: Yes No
Description of change (omit if dropping a course or program):
Update Math MS description to reflect change to Game Theory course number

Present Catalog Copy

Applied Mathematics Option:
This track of the MS Program is intended for students planning to use mathematics in careers outside academia. Each student selecting this track will take at least four applied mathematics courses from the list below:

MATH 50613
Partial Differential Equations
3
MATH 50623
Applied Mathematics I
3
MATH 60103
Graph Theory
3
MATH 60543
Numerical Analysis
3
MATH 60553
Modern Fourier Analysis
3
MATH 60603
Game Theory
3
MATH 60613
Differential Equations of Mathematical Physics
3
MATH 60633
Applied Mathematics II
3
MATH 60643
Dynamical Systems and Applications
3

Up to 6 hours of the applied mathematics courses may be substituted with graduate coursework taken in the departments of Biology, Chemistry, Computer Science or Physics & Astronomy, or from Geological Sciences or Environmental Sciences, with approval from the student's graduate advisor in the Department of Mathematics.
Proposed Catalog Copy:

[NOTE: APPLIED MATHEMATICS I and II WERE REMOVED FROM THE PROGRAM THROUGH ANOTHER PROPOSAL EARLY THIS SEMESTER - THE ONLY PROPOSED CHANGE NOW IS THAT TO THE COURSE NUMBER FOR GAME THEORY]

Applied Mathematics Option:
This track of the MS Program is intended for students planning to use mathematics in careers outside academia. Each student selecting this track will take at least four applied mathematics courses from the list below:
MATH 50613
Partial Differential Equations
3
MATH 60103
Graph Theory
3
MATH 60543
Numerical Analysis
3
MATH 60553
Modern Fourier Analysis
3
MATH 60613
Differential Equations of Mathematical Physics
3
MATH 60653
Game Theory
3
MATH 60643
Dynamical Systems and Applications
3

Up to 6 hours of the applied mathematics courses may be substituted with graduate coursework taken in the departments of Biology, Chemistry, Computer Science or Physics & Astronomy, or from Geological Sciences or Environmental Sciences, with approval from the student's graduate advisor in the Department of Mathematics.
Supporting evidence or justification:

This change also reflects the proposed change to the course number of Game Theory from Math 60603 to Math 60653.

Explain how the change(s) will affect the current outcomes and assessment mechanisms?

It will not.

Additional resources required

Faculty:

Space:

Equipment:

Library:

Financial Aid:

Other:
Change in teaching load:

Does this change affect any other units of the University?  Yes  No

If yes, submit supporting statement signed by chair of affected unit.

If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and the cross-listed units.

Chair of Originating Unit:

Name:  Greg Friedman
Unit:  Math

Signature:  Greg Friedman

Digitally signed by Greg Friedman
Date: 2021.08.14 22:42:59 -05'00'
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: Computer Science Department

Type of Change requested:

- [ ] Course number(s)
- [ ] Course prerequisite(s)
- [x] Course title
- [ ] Drop course(s)
- [ ] Program description
- [ ] Course description
- [ ] Program requirements
- [ ] Drop program(s)
- [ ] Program requirements

Semester and year change(s) take effect: Spring 2022

Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:
Delete this course from the Computer Science Department's course listings.

Programs Only
Program Name: __________________________________________________________

Current Code: __________ Proposed New Code (list 2): ____________ or ____________
(ex: INDE-BFA)

Can have second major: ___Yes ___No

Current CIP Code: __________
Does the change require a new or change in CIP code? ___Yes ___No

If yes, what is the proposed CIP code? ____________
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?v=56
Catalog copy

Present catalog copy (paste-up from catalog is acceptable.)

Proposed change(s). (Include exact catalog copy as desired. Underline changes)

COSC 20101 Assembler Fundamentals

Prerequisite: COSC 10403. Computer structure, machine language, instruction execution, addressing modes, and internal representation of data. Several assembler language programming assignments are required.

Credits

1

Request for Changes

1. What is the justification for the change(s) requested?
   This course is no longer taught by the department and should be removed from the Department's course listings.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.
   N/A

3. Faculty Resources: How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.
   N/A
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - [ ] YES
   - [x] NO

   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).
   - N/A

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.
   - N/A

   ________________
   Approval signature of chairperson of originating unit

Revised 02/2020
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: Computer Science

Type of Change requested:

- [ ] Course number(s)
- [ ] Course prerequisite(s)
- [ ] Course title
- [ ] Drop course(s)
- [ ] Program description
- [ ] Course description
- [ ] Drop program(s)
- [ ] Program requirements

Semester and year change(s) take effect: Spring 2022

Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:

Changing course description for COSC 30203 - Computer System Fundamentals.

Programs Only
Program Name: 

Current Code: ______ Proposed New Code (list 2): ______ or ______
(ex: INDE-BFA)

Can have second major: ____ Yes ____ No

Current 6-digit CIP Code: ______
Does the change require a new or change in CIP code? ____ Yes ____ No

If yes, what is the proposed 6-digit CIP code? ______
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56
Catalog copy

Present catalog copy (paste-up from catalog is acceptable.

COSC 30203 Computer System Fundamentals

Prerequisite: COSC 20803 with a C- or better. Introduction to stored program computer architecture, machine representation of data, and assembly language programming. Followed by a discussion of operating system topics with an emphasis on issues related to multiprogramming.

Credits 3

Proposed change(s). (Include exact catalog copy as desired. Underline changes)

COSC 30203 Computer System Fundamentals

Prerequisite: COSC 20803 with a C- or better. Topics include a review of machine representation of data, machine language, systems programming, memory hierarchy, linking, exceptional control flow, system-level I/O, network programming, and concurrent programming.

Credits 3

1. What is the justification for the change(s) requested?

   Updating course description to reflect current course topics.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

   Current programs will not change.

3. Faculty Resources: How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

   N/A
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?

   - [ ] YES
   - [x] NO

   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

   [Signature]

   Approval signature of chairperson of originating unit

Revised 02/2020
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: Mathematics

Type of Change requested:

☐ Course number(s) ☐ Course prerequisite(s)
☐ Course title ☐ Drop course(s)
☐ Course description ☐ Drop program(s)
☐ Program description ☐ Program requirements

Semester and year change(s) take effect:

Appropriate computer abbreviation if course title is more than 30 spaces: Fall 2022

Briefly summarize the change requested:

Update Game Theory course number in Math BS description from Math 40633 to Math 40653

Programs Only
Program Name: Math BS

Current Code: __________ Proposed New Code (list 2): __________ or __________
(ex: INDE-BFA)

Can have second major: Yes No

Current 6-digit CIP Code: __________
Does the change require a new or change in CIP code? Yes No

If yes, what is the proposed 6-digit CIP code? __________
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56
Catalog copy

Present catalog copy (paste-up from catalog is acceptable. Proposed change(s). (Include exact catalog copy as desired. Underline changes)

The program of study requires a minimum of 46 hours, with a grade of C- or better, on a 124-hour degree consisting of:
Core Courses
MATH 10524 Calculus I
4
MATH 20123 Discrete Mathematics I
3
MATH 20524 Calculus II
4
MATH 30053 Introduction to Mathematical Proof
3
MATH 30224 Linear Algebra
4

1. What is the justification for the change(s) requested?

   Change Game Theory course number in Math BS description to match change to course number.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

   NA

3. Faculty Resources: How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

   NA
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - [ ] YES
   - [ ] NO
   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

---

**Greg Friedman**
Digitally signed by Greg Friedman
Date: 2021.10.09 01:33:09 -05'00'

Approval signature of chairperson of originating unit

Revised 02/2020
GRADUATE COUNCIL: PROPOSAL FOR CHANGE IN EXISTING COURSE/PROGRAM

Originating Unit: Math

Type of action: change in course change in program

Type of change requested:

- Number
- Description
- Drop Course
- Drop Program*

*Other, please specify

A SACSCOC Drop Program Justification form will need to be completed

Semester and year course/program will take effect: Fall 2022

Course instructional methodology:

Course component types: ugradcouncil.tcu.edu/forms/Course Component Types.pdf

Current name:

Proposed name:

Appropriate computer abbreviation (30 spaces or less):

Programs Only

Current program code:
(ex:EDCE-PHD)

Proposed code (list 2) or

Current CIP code:

Does the change require a new or change in CIP code: Yes No

If yes, what is the proposed new CIP code:

*for reference please visit: nces.ed.gov/ipeds/cipcode/resources.aspx?y=56

Is the program already considered TCU STEM: Yes No

Does the change include a request to be a TCU STEM program: Yes No
Description of change (omit if dropping a course or program):
Change of course number

Present Catalog Copy

MATH 60603 - Game Theory (3)
Prerequisites: MATH 30224, 30524 and 30803, or equivalents. Sequential move games, game trees, perfect information games and games of chance. Matrix games, dominated and mixed strategies, the mini-max theorem, linear programming. Continuous games, games of timing. Multi-player games and Nash equilibrium, cooperative games: core and stable sets, bargaining, nucleolus. If time permits, special topics can include side payments, power indices, imperfect information and artificial intelligence.
Proposed Catalog Copy:

MATH 60653 - Game Theory (3)
Prerequisites: MATH 30224, 30524 and 30803, or equivalents. Sequential move games, game trees, perfect information games and games of chance. Matrix games, dominated and mixed strategies, the mini-max theorem, linear programming. Continuous games, games of timing. Multi-player games and Nash equilibrium, cooperative games: core and stable sets, bargaining, nucleolus. If time permits, special topics can include side payments, power indices, imperfect information and artificial intelligence.
Supporting evidence or justification:

This change will make the course numbering more consistent between this course and other related courses offered by the Department.

Explain how the change(s) will affect the current outcomes and assessment mechanisms?

It will not.

Additional resources required
Faculty:
Space:
Equipment:
Library:
Financial Aid:
Other:
Change in teaching load:

Does this change affect any other units of the University?  Yes    No

If yes, submit supporting statement signed by chair of affected unit.

If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and the cross-listed units.

Chair of Originating Unit:

Name:  Greg Friedman
Unit:  Math

Signature:  Greg Friedman

Digitally signed by Greg Friedman
Date: 2021.08.14 22:42:59 -05'00'
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change  Mathematics

Type of Change requested:

☐ Course number(s)  ☐ Course prerequisite(s)
☐ Course title  ☐ Drop course(s)
☐ Course description  ☐ Drop program(s)  ☐ Program description
☐ Program requirements

Semester and year change(s) take effect:  Fall 2022

Appropriate computer abbreviation if course title is more than 30 spaces:  Game Theory

Briefly summarize the change requested:

Change course number for Game Theory

Programs Only
Program Name: ________________________________

Current Code: ________ Proposed New Code (list 2): ________ or ________
(ex: INDE-BFA)

Can have second major: ____ Yes ____ No

Current 6-digit CIP Code: __________

Does the change require a new or change in CIP code? ____ Yes ____ No

If yes, what is the proposed 6-digit CIP code? ________

*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56
### Catalog copy

Present catalog copy (paste-up from catalog is acceptable.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Probabilistic Algorithms</th>
<th>Underline changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 40633</td>
<td>Game Theory (3)</td>
<td>Prerequisites: MATH 30224, 30524 and 30803, all with a C- or better. Sequential move games, game trees, perfect information games and games of chance. Matrix games, dominated and mixed strategies, the mini-max theorem. Continuous games, games of timing. Multi-player games and Nash equilibrium, cooperative games: core and stable sets, bargaining, nucleolus. If time permits, special topics can include linear programming, side payments, power indices, imperfect information and artificial intelligence.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 40653</td>
<td>Game Theory (3)</td>
<td>Prerequisites: MATH 30224, 30524 and 30803, all with a C- or better. Sequential move games, game trees, perfect information games and games of chance. Matrix games, dominated and mixed strategies, the mini-max theorem. Continuous games, games of timing. Multi-player games and Nash equilibrium, cooperative games: core and stable sets, bargaining, nucleolus. If time permits, special topics can include linear programming, side payments, power indices, imperfect information and artificial intelligence.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. What is the justification for the change(s) requested?

   This change will make the course numbering more consistent between this course and other related courses offered by the Department.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

   They will not

3. **Faculty Resources:** How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

   NA
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - [ ] YES
   - [ ] NO
   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

---

**Greg Friedman**

Digitally signed by Greg Friedman

Date: 2021.10.09 01:18:12 -05'00'

Approval signature of chairperson of originating unit

Revised 02/2020
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: Computer Science

Type of Change requested:  

Prerequisites for COSC 40203 – Operating Systems

- Course number(s)
- Course title
- Course description
- Course prerequisite(s)
- Drop course(s)
- Drop program(s)

Semester and year change(s) take effect: Spring 2022

Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:

Changing course COSC 40203 – Operating Systems prerequisites to require C- or better in COSC 30253 – Computer Organization.

Programs Only
Program Name: ________________________________

Current Code: __________ Proposed New Code (list 2): __________ or __________
(ex: INDE-BFA)

Can have second major: ___ Yes ___ No

Current 6-digit CIP Code: __________

Does the change require a new or change in CIP code? ___ Yes ___ No

If yes, what is the proposed 6-digit CIP code? __________

*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56
Catalog copy

Present catalog copy (paste-up from catalog is acceptable.

Proposed change(s). (Include exact catalog copy as desired. Underline changes)

COSC 40203 Operating Systems

Prerequisites: COSC 30203 with a C- or better, COSC 30253. Introduction to operating systems concepts, principles, and design. Topics include: processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, security and protection, networking, and distributed systems. Selected existing operating systems are discussed, compared, and contrasted.

Credits 3

COSC 40203 Operating Systems

Prerequisites: COSC 30203 with a C- or better, COSC 30253 with a C- or better. Introduction to operating systems concepts, principles, and design. Topics include: processes and threads, CPU scheduling, mutual exclusion and synchronization, deadlock, memory management, file systems, security and protection, networking, and distributed systems. Selected existing operating systems are discussed, compared, and contrasted.

Credits 3

1. What is the justification for the change(s) requested?

   Requiring minimum proficiency in COSC 30253 – Computer Organization before taking Operating Systems.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

   N/A

3. Faculty Resources: How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

   N/A
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - [ ] YES
   - [ ] NO
   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

   Approval signature of chairperson of originating unit

Revised 02/2020
**Natural Sciences**  
**The Human Experiences and Endeavors Curriculum**

Courses submitted for inclusion in the Natural Sciences Core must already exist or must be approved by the Undergraduate Council.

Course Title: The History of Women in Science  
Department and Course Number: ENSC 30123  
Instructor(s): Dr. Rhiannon Mayne

Please indicate below which *Student Action Steps*** are appropriate for your course for each *Learning Outcome*. Using the bulleted instructions on page 2 of this form, please provide examples that explain how students will, through the use of *Student Action Steps*, achieve the *Learning Outcomes* in your course.

*Competency*: TCU graduates will be literate in the natural sciences.

<table>
<thead>
<tr>
<th><strong>Learning Outcomes:</strong></th>
<th><strong>Student Action Steps:</strong></th>
</tr>
</thead>
</table>
| Students will demonstrate a basic understanding of some of the methods of investigation in the natural sciences. | Students will explore investigation methodologies and principles through multiple experiences involving laboratory experiments, field studies, or simulations appropriate to the natural science discipline. For each investigation process or principle, students will: determine its purpose, describe it, and compare and contrast it with alternative methodologies.  [ x ]  
Other: |
| Students will demonstrate a basic understanding of some of the great ideas in the natural sciences. | Students will examine some of the major ideas appropriate to the area of study, including how such ideas resulted from a scientifically reasoned investigation. For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles, or theories.  [ x ]  
Other: |
| Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society. | Students will explore the relationships between science, technology, and society appropriate to the natural science discipline. Students will: describe the roles that each plays in the others’ development, and identify the benefits and problems associated with each relationship.  [ x ]  
Other: |

*The *Learning Outcomes* are statements of what we expect our students to know or be able to do upon completion of a course in that category.*

Rev 2010-09-16
**The Student Action Steps identify the process(es) that will lead to the intended Learning Outcome. As such, Student Action Steps must specify an action(s) to be taken by a student to fulfill a specific Learning Outcome and be reasonable within the context and time frame of the course. The Student Action Steps above are provided as examples of how students might achieve the Learning Outcomes.**

- Please provide examples that explain how students will, through the use of Student Action Steps, achieve the Learning Outcomes in your course (2 or 3 examples will suffice). To facilitate understanding, please use language accessible both to faculty who might be outside your discipline as well as to students who might see such language in a course syllabus.

Students will explore investigation methodologies and principles through multiple experiences involving laboratory experiments, field studies, or simulations appropriate to the natural science discipline. For each investigation process or principle, students will: determine its purpose, describe it, and compare and contrast it with alternative methodologies.

In Module 5 of this course, we will spend each class discussing the contributions of specific women in science in a range of disciplines. These class times will be interactive and involve hands-on experiments and observations, where possible. For example:

- Mary Anning. We will look at fossils and investigate how they allow us to study past environments.
- Marie Curie. We will explore the principle of electromagnetic radiation. In a more lab-based class we will examine naturally radioactive minerals in the geology mineral collection and use the VISNIR spectrometer in the Monnig to understand the tools we can use to study different wavelengths of radiation.
- Henrietta Leavitt. We will use actual astronomical data to explore the relationship between the luminosity and period of Cepheid variables, which she is known for discovering. This will allow an explanation of standard candles and their use in astronomy.

Students will examine some of the major ideas appropriate to the area of study, including how such ideas resulted from a scientifically reasoned investigation. For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles, or theories.

In Module 5 of this course, we will spend each class discussing the contributions of specific women in science in a range of disciplines. These discussions will focus around the major contributions each individual (or group) made and the process and history behind the scientific investigation that led to them.

Each student will also work on a project all semester where they focus on one female scientist and the major idea/contribution that they made. This project will approach this from the historical, social, and scientific perspective, giving each student a detailed insight into how the scientific advance was made. Each student will present their project in the form of a Museum Exhibit Proposal at the end of the semester, so that the entire class will be familiar with each chosen scientist and their work.

Students will explore the relationships between science, technology, and society appropriate to the natural science discipline. Students will: describe the roles that each plays in the others’ development, and identify the benefits and problems associated with each relationship.

Modules 2 and 3 of this course explore the interplay between the cultural and societal role of women and how that affected their work within their discipline. They will investigate how that has impacted science as a whole, and how this has (or has not) changed through time.
• Please attach a syllabus as the primary supporting document for your course proposal. Syllabi should reflect the Learning Outcomes and the use of the indicated Student Action Steps. They should also indicate how student performance will be evaluated with respect to the outcomes.
Syllabi are your guidebook to any course you are taking. They are a must read.

However, syllabi are also very long, somewhat dry (ok very dry) documents and it can be hard to know where to find the information you need if you are not familiar with them. In addition, each Professor often approaches their syllabi slightly differently. For this reason, this page contains a guide to each section of the following syllabus, to help you navigate it better.

Please do not hesitate to contact me with any questions about the contents of the syllabus.

This message brought to you by every instructor that ever lived.

www.phdcomics.com

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Who? What? Where? When?

Instructor: Dr. Rhiannon Mayne, she/her/hers.
  r.g.mayne@tcu.edu
Class Times: Tuesday and Thursday 15:30 – 16:50 pm
Office Hours: Thursday 11.30 - 1.30 and by appointment.

How to contact me: For simple questions, please email me and include the topic in the subject line of your email. For more information please see the Communication Expectations section under Course Policies and Expectations.

Final Evaluative Exercise

The final evaluative exercise in this course is a Museum Exhibit Proposal based on project work you will complete throughout the semester. It is due the day of our scheduled final, which is on XXXXX.

Course Description

Prerequisites: Sophomore in standing, or WGST 20003 Introduction to Women and Gender Studies, or permission of the instructor. Three hours of lecture a week

This course will:

1. Examine the reasons behind the gender-related differences in STEM today.
2. Review the societal and cultural reasons behind the historical exclusion and erasure of the contributions of women to the STEM fields.
3. Explore and evaluate the contributions of women to the advancement of science throughout history.

Teaching Philosophy

As an educator, my overall focus is to promote learning by engaging students in learning experiences that take advantage of the multi-disciplinary aspect of my work and the diversity of interests, opinions, and backgrounds of my students. I do not believe in only teaching for a test, instead I aim to foster skills such as critical thinking, problem solving, and teamwork. I strongly believe that science is not an individual endeavor; the most progress requires the strength and support of a community. I try to reflect that environment in my classroom, so all members (including myself) are able to learn and contribute.
Learning Outcomes

The Learning Outcomes for this course are:

Course-level:

(1) Students will demonstrate an awareness of how the intersectional effects of gender, sex, sexuality, race, ethnicity, and ability have influenced the STEM fields throughout history and into the present day.

_Student Action steps:_ (1) Students will examine and analyze research into the sociocultural factors that led to: (a) the exclusion and erasure of the contributions of women to the STEM fields throughout history, (b) gender-related differences in STEM fields today. (2) Students will produce written summaries that require them to evaluate sources from a variety of perspectives.

(2) Students will be able to explain the contributions of women to the advancement of science throughout history.

_Student Action steps:_ (1) Students will explore the contributions that women scientists have made to STEM from ancient times through to the modern day. (2) Students will present a final project on the contribution of a female scientist of their choosing.

Natural Science:

(3) Students will demonstrate a basic understanding of some of the great ideas in the natural sciences.

_Student Action steps:_ (1) Students will examine some of the major ideas appropriate to the area of study, including how such ideas resulted from a scientifically reasoned investigation. For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles, or theories.

(4) Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society.

_Student Action steps:_ (1) Students will explore the relationships between science, technology, and society appropriate to the natural science discipline. Students will: describe the roles that each plays in the others’ development, and identify the benefits and problems associated with each relationship.

Historical Traditions:

(5) Students will demonstrate an ability to critically evaluate historical discourse, and to develop evidence-based conclusions about the past.

_Student Action steps:_ (1) Students will examine and analyze a variety of historical sources and interpretations. (2) Students will present their evidence-based interpretations about the past.
**Instructional Method**

This course will involve lectures, class discussions, and hands-on exercises in lab. I make all my lectures available on TCUOnline. However, please do not mistake having these available as a reason to skip class as my slides are very visual, and are not a substitute for taking notes.

I ensure that all graphs, especially those that show trends over time, are up-to-date and relevant and I try to cover no more than two major take-home points or big themes in each class. I will begin most lectures with an open-ended, critical thinking question and address the relevance of that question, either from a practical or theoretical standpoint. I find this focusing question gives the students an immediate foundation for the material and inspires their intrinsic curiosity. You should be asking yourself right at the outset of each class “Why should I care about this topic?”

**Course Materials**

TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructor. Accessing, copying, transporting (to another person or location), modifying, or destroying programs, records, or data belonging to TCU or another user without authorization, whether such data is in transit or storage, is prohibited. The full policy can be found at: [https://security.tcu.edu/polproc/usage-policy/](https://security.tcu.edu/polproc/usage-policy/).

Violating this policy is considered a violation of Section 3.2.15 of the Student Code of Conduct (this policy may be found in the Student Handbook at [https://tcu.codes/code/index/](https://tcu.codes/code/index/)), and may also constitute Academic Misconduct or Disruptive Classroom Behavior (these policies may be found in the undergraduate catalog at [https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details](https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details)). TCU encourages student debate and discourse; accordingly, TCU generally interprets and applies its policies, including the policies referenced above, consistent with the values of free expression and First Amendment principles.

**Required Text:**

There is no required text for this class.

**Assessment**

**Participation**

Participation is is 10% of your grade in this class. It will be graded using the rubric below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-10</td>
<td>Arrives on time or early for class; participates actively; contributes meaningfully to class discussion; tries to “dig deeper” and analyze texts; asks strong, thoughtful questions; encourages classmates to participate; does NOT text during class or become otherwise distracted.</td>
</tr>
<tr>
<td>6-8</td>
<td>Arrives on time for class; volunteers participation; contributes to discussion but comments are more superficial in nature (i.e. opinion-based or reflection); asks thoughtful questions; supports classmates who participate; does NOT text during class or become otherwise distracted.</td>
</tr>
<tr>
<td>5-6</td>
<td>Arrives late for class (less than 5 minutes); participates when called on to do so (but does not volunteer); might ask questions but mostly about assignments or logistics instead of course content; texts during class or becomes otherwise distracted.</td>
</tr>
<tr>
<td>1-5</td>
<td>Arrives very late to class (more than 5 minutes); little to no participation; unprepared for class discussion; texts in class or becomes otherwise distracted (sleeping, technology, daydreaming, etc.).</td>
</tr>
</tbody>
</table>
I will assess your participation, but you will play an equal part in this assessment by completing this rubric yourself for every class session. You will provide a rationale for the points you’ve awarded your contributions to our class community. These sheets will also be used to mark attendance. While I will honor your self-assessments, please know that I will read through them after every class; I will contact you if I see a large discrepancy between our evaluations so that we can discuss what might be contributing to our different perceptions.

Assignments

There are three main categories of assignments in this course:

1. **Reading Summaries**: You will be asked to write six summaries over the assigned readings throughout the semester.

2. **Reflections**: You will be asked to submit four brief written reflections on the women we discuss in Module 5. Your reflections will be submitted to TCUOnline and should include: (a) what the contribution of each woman/group of women was to their discipline; (b) your own personal reflection on the material. They should be 1-2 paragraphs in length and written in the first person. While reflective writing uses a more informal and personal tone, your reflections should still be written in complete sentences, and grammatically correct. While I do not give any set structure for these assignments, you are welcome to follow the DIEP model or Gibb's reflective cycle as a guide.

1. **Class Project**: Your class project is 50% of your total grade and it is broken up into five separate graded items.

Grading

Final grade elements/grade breakdown:

<table>
<thead>
<tr>
<th>Learning Outcome*</th>
<th>Assignments</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Class Participation</td>
<td>10</td>
</tr>
<tr>
<td>1, 3, 4, 5</td>
<td>Module reading summaries (six in total)&lt;sup&gt;1&lt;/sup&gt;</td>
<td>30</td>
</tr>
<tr>
<td>2, 3, 4</td>
<td>Reflections (four in total)</td>
<td>10</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project&lt;sup&gt;2&lt;/sup&gt;: Topic Summary</td>
<td>2</td>
</tr>
<tr>
<td>1, 3, 4, 5</td>
<td>Project&lt;sup&gt;2&lt;/sup&gt;: Peer Review of Research Paper</td>
<td>3</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project&lt;sup&gt;2&lt;/sup&gt;: Research Paper</td>
<td>20</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project&lt;sup&gt;2&lt;/sup&gt;: Museum Exhibit Design</td>
<td>15</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project&lt;sup&gt;2&lt;/sup&gt;: Virtual Exhibit Presentation</td>
<td>10</td>
</tr>
</tbody>
</table>

*Learning outcomes are defined and numbered on p3 of this syllabus.

<sup>1</sup>Please see the separate handout for a full description of the assignment and the rubric that will be used for grading purposes.

<sup>2</sup>This is a multi-part assignment. Please see the separate handout for a full description of each assignment, its constituent parts, and for the relevant rubrics.
Course grades will be based on the following scale:

<table>
<thead>
<tr>
<th>%</th>
<th>&lt;60</th>
<th>≥60 - &lt;70</th>
<th>≥70 - &lt;80</th>
<th>≥80 - &lt;90</th>
<th>≥90 - 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>F</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

Important note: While the table above suggests no flexibility when it comes to the grade distribution, here is how I finalize grades in this class. First, I total all assignments and tasks, and then rank the final numeric scores of each student from highest to lowest. I then look for statistically significant breaks between “grade clusters.” For example, if the first few grades are: 94, 92.3, 90.1, 89.7, 89.5, 89.1, 88.0, 87.9, and so on, the A/B cut-off would be 89.1 and above, because the next grade down, the 88.0, is a full 1.1 percentage points below 89.1. Ultimately, this helps you and, in my opinion, makes the process fairer.

Grade discussions:
I am very aware how important grades are to you and I am always happy to discuss your grade and your performance in this class. Please understand that such conversations are much better held earlier in the semester, so that they can have the most impact. It is important that you understand that I give the same opportunities to every student in this class and, for this reason, I will never assign extra credit to an individual student so that they may improve their grade. Such requests will not be entertained. There will be no curve given in this class.

Grade Appeal: If you feel that you have received an incorrect or unfair grade on an assignment, please email me. Your email should contain which assignment/grade you wish to contest and why you do not believe the grade to be correct. Your email should be sent within one week of grade receipt.

Late work policy: Life happens and it doesn’t care about a deadline, so please let me know if something is going on in your life that is affecting your ability to meet a deadline. However, if you do not contact me or have a justifiable reason for missing a deadline, a full letter grade penalty (10%) will be given the first day (<24 hours late). A two letter grade penalty (20%) will be given for late work >24 hours late. I will not accept any assignments more than 48 hours after the assignment deadline.

Course Policies and Expectations

Civility Policy
In accordance with the philosophy of an institution of higher learning, the classroom should be a place where diverse ideas can be explored with respect in order to promote growth.

We each come from a variety of backgrounds and bring with us different experiences to the classroom. Regardless of whether or not we share similar opinions and beliefs, I expect us to remain respectful of each other as we explore ideas. I encourage you to express yourself with reason, clarity, courtesy, and compassion. This ensures that we may be comfortable learning and growing without fear of judgment, ridicule, or intimidation. I welcome each of you as worthy contributors in the classroom. Student conduct that disrupts the learning process will not be tolerated and may lead to disciplinary action and/or removal from class.

In line with expectations set in the Code of Conduct found in the TCU Student Handbook (https://tcu.codes/), the following contradict the ethos of this course and will not be permitted in any form in this course.
1. Ad hominem attacks or attacks on an individual’s or group of individuals’ character on the basis of gender, race, class, ethnicity, national origin, religion, sexual orientation, gender identity, disability, or other personal characteristics.

2. Epithets or other language intended to intimidate, demean, or incite violence.

3. Editorial content that is harmful, threatening, abusive, demeaning, or libelous.

**Attendance**

I expect you to attend each class prepared, having covered all assigned material, and ready to engage in our discussions. While I do not take attendance, absences may impact your grade as participation is part of your grade and class time is one of your main opportunities to ask any questions you may have.

**Netiquette**

The same rules apply online as they do in person. Be respectful of other students. Foul discourse will not be tolerated. Please take a moment and read the basic information about netiquette (http://www.albion.com/netiquette/).

Participating in the virtual realm, including social media sites and shared-access sites sometimes used for educational collaborations, should be done with honor and integrity. This site provides guidance on personal media accounts and sites (http://www.uh.edu/marcom/guidelines-policies/social-media/index).

**Communication Expectations**

**Email:** Email is best used for short questions that do not require an immediate response. I will check our emails during regular working hours 8.30am – 5pm and endeavor to respond to you the same day, except on weekends. It is possible that you will receive a prompt response to a 10pm email on a Saturday, but please don’t expect it.

Only the official TCU student email address will be used for all course notification. I expect that you will check your TCU email on a regular basis.

**Office Hours:** Office hours are a great time to come ask any questions you might have about the course, or your university experience as a whole. I welcome comments and feedback about the course and am always happy to discuss ways to improve my courses, or why certain assignments, readings, or policies have been chosen. I encourage you to take advantage of this time.

While I set certain times aside for office hours, I am always happy to make appointments outside of the hours noted on the syllabus.

**Technology Policies**

**Cell-phones** may be not used. Please silence your phones during class times so they aren’t a distraction. I will do the same.

**Recording devices** are not permitted.

**TCU Online**

**Getting Started with TCU Online:** Access via my.tcu.edu > Student Quick Links > TCU Online OR **Login** (http://d2l.tcu.edu) and enter your TCU network credentials (the same you use for MyTCU). For information about logging into TCU Online, view these instructions (http://tcuonline.tcu.edu/kb/how-do-i-log-in/).
If you have not yet taken the TCU Online Student Orientation Tutorial, please do so now. To access it, click on the "Student Orientation Tutorial" on your home page. Follow the instructions in the course.

Make sure you check the list of technical requirements for using the system (https://community.brightspace.com/s/article/Brightspace-Platform-Requirements)

Getting Help with TCU Online: If you experience any technical problems while using TCU Online, please do not hesitate to contact the D2L HELP DESK. They can be reached by phone or chat 24 hours a day, 7 days a week, 365 days a year.

**Phone:** 1-877-325-7778
**Chat:** Chat is available within TCU Online in the Help menu on the navigation bar.

If you have a course-related issue with TCU Online (course content, assignment troubles, quiz difficulties) please contact me.

**Personal Settings & Notifications for TCU Online:** As a student, you should set up your account settings, profile, and notifications. To do this you will login to TCU Online and select your name on the top right of the screen. You can upload a photo of yourself and add personal information to your profile. In the notifications area, you can add your phone number to receive text messages when grades are given as well as reminder texts for upcoming assignments and quizzes.

**Recommended App for Use with TCU Online:** Pulse is a phone app which gives you access to the course calendar, assignments, grades, and announcements. This app provides a graph that can help you manage your time. Based on the number of assignments and events on the course calendar for your classes, the graph will display busy times for class work in the upcoming week. You can use this app to manage your daily workload and includes the ability to view and access course materials offline. Students can download Pulse from the Google Play or Apple Store. Students can learn more and download Pulse here: https://www.d2l.com/products/pulse/.

**ReadSpeaker:** includes a number of tools that can enhance your understanding and comprehension of course materials. ReadSpeaker can create an audio version of content that you can listen to while on a page within a course or that you can download to listen offline. ReadSpeaker can also read Microsoft Office files and PDFs. There are additional tools and features to assist you with reading and focusing in TCU Online, tools that provide support for writing and proofing text, and tools that can read non-TCU Online content aloud. You can learn more about how to use ReadSpeaker tools here: https://tcunline.tcu.edu/how-to-hub/instructor-how-to-hub-for-tcu-online/integrations-and-mobile/readspeaker/

**Academic Misconduct**

Academic Misconduct (Sec. 3.4 from the TCU Code of Student Conduct): Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Dean of Students’ Office and are listed in detail in the Undergraduate Catalog (https://www.tcu.edu/catalog.php). Specific examples include, but are not limited to:

**Cheating:** Copying from another student’s test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.
**Plagiarism:** The appropriation, theft, purchase or obtaining by any means another’s work, and the unacknowledged submission or incorporation of that work as one’s own offered for credit. Appropriation includes the quoting or paraphrasing of another’s work without giving credit therefore. Turnitin will be used in this course, via a TCU Online dropbox to check all written assignments for plagiarism.

**Collusion:** The unauthorized collaboration with another in preparing work offered for credit.

**Abuse of Resource Materials:** Mutilating, destroying, concealing, or stealing such material

**Computer Misuse:** Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs, terminals, or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.

**Fabrication and Falsification:** Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.

**Multiple Submission:** The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.

**Complicity in Academic Misconduct:** Helping another to commit an act of academic misconduct.

**Bearing False Witness:** Knowingly and falsely accusing another student of academic misconduct

**Policy on Children in Class**

As a working parent, I am happy to problem-solve any issues you may have so that you feel supported as you strive for school-parenting balance. Currently, the university does not have a formal policy on children in the classroom. The policy described here is just a reflection of my own beliefs and commitments to student, staff, and faculty parents:

I understand that unforeseen disruptions in childcare and schooling often put parents in the position of having to stay home with a child. This is particularly true this year during the pandemic. You are welcome to dial into class with a child present to class in order to cover gaps in care;

I ask that all students work with me to create a welcoming environment that is respectful in terms of diversity, including diversity in parenting status.

**TCU Policy for Religious Observations & Holidays**

“Students who are unable to participate in a class, in any related assignment or in a university required activity because of the religious observance of a holy day shall be provided with a reasonable opportunity to make up the examination or assignment, without penalty, provided that it does not create an unreasonable burden on the University.” For more information, please visit the TCU Policy for Religious Observations & Holidays webpage.
The Impact of COVID

Have you been Vaccinated Against COVID-19?
Fill out the vaccine survey by scanning the QR code to the right.

Campus Life

The health and safety of students, faculty, and staff is Texas Christian University’s highest priority. Safety protocols may change during the semester and may result in modifications or changes to the teaching format, delivery method, or the course schedule (e.g., altering meeting times or frequency; changing beginning or ending dates for a term; or partially or completely moving from a face-to-face classroom teaching to an online teaching or remote learning format). Any changes in teaching format, delivery method, or course schedule will not impact the credit hours for the course.

Are you feeling unwell? Let TCU know.

If you are exhibiting symptoms that may be related to COVID-19 (fever or chills, dry cough, shortness of breath, etc.) or are concerned that you may have been exposed to COVID-19, you must self-quarantine and consult with the Brown Lupton Health Center at 817-257-7949 for further guidance.

In addition, you must notify the Dean of Students immediately at 817-257-7926 or use the TCU COVID-19 Self-Report Hotline, 817-257-2684 (817-257-COVI). The Dean of Students’ Office will inform your professors that you are unable to attend class and provide any assistance and support needed. Click here for detailed information concerning COVID-19 symptoms: https://www.cdc.gov/coronavirus.

If you are unwell but are not exhibiting potential COVID-19-related symptoms, please notify your instructor as soon as possible that you are ill and will not be attending class.

Face Coverings and Physical Distancing:

Face masks are currently required in TCU classrooms, per the TCU Campus Readiness Task Force: Face Mask Policy. Students not complying with classroom face mask requirements may be referred to Dean of Students Mike Russel.

If TCU lifts the face mask requirement before the end of Fall 2021, the instructor may continue to require face masks in their classrooms. At that point, the instructor will notify the students of their decision and update their syllabus accordingly.

Note: I will require face masks in the classroom for the entirety of the Fall 2021 semester.
Emergency Response Information

Please review TCU’s L.E.S.S. is More public safety video to learn about Lockdown, Evacuate, and Seek Shelter procedures. (https://publicsafety.tcu.edu/less-is-more/)

TCU’s Public Safety website provides maps that show our building’s rally point for evacuation and the seek shelter location. (https://publicsafety.tcu.edu/)

In the event of an emergency, call the TCU Police Department at 817-257-7777.

Download the Frogshield Campus Safety App on your phone. (https://police.tcu.edu/frogshield/)

Resources and Support

During your time as a student at TCU, there are many things that you may experience or encounter that may impact both your learning and personal life. These may include inadequate resources, stress, anxiety, alcohol and drug related issues, depression, and many more. If I can help connect you to a resource, please me know.

Please let me know if there is a resource you believe I should add to this list or if any of the information is incorrect.

The TCU Counseling and Mental Health Center (https://counseling.tcu.edu/) offers free, confidential mental health services. They can be reached at 817-257-7863. Their 24/7 phone counseling helpline is 817-257-SAFE (7233). They are located on the 2nd floor of Jarvis Hall.

The Dean of Students’ Office office (https://deanofstudents.tcu.edu/) is available to assist with any student concerns, including resolving personal emergencies (817-257-7926 or deanofstudents@tcu.edu, First floor of The Harrison, Suite 1600).

Other resources on campus include:

Academic Advising (817-257-7486, https://www.tcu.edu/academics/advising/index.php, Jarvis Hall, 147)


The Campus Community Response Team (https://titleix.tcu.edu/campus-community-response-team/) manage and review the response of bias incidents involving TCU students. A bias incident is an act or behavior motivated by the offender’s bias against another’s identity which may include, but is not limited to, race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, immigration status, age, disability, genetic information or covered veteran status. Bias occurs whether the act is intentional or unintentional, may be directed toward an individual or group and may by initiated by an individual or group. Bias may contribute to creating an unsafe or unwelcoming environment. You can report a bias incident on their website (https://titleix.tcu.edu/campus-community-response-team/report-a-bias-incident-here/).

Career Services (817-257-7686, careers@tcu.edu, https://careers.tcu.edu/)


International Services (817-257-7292, https://internationalservices.tcu.edu/, Intercultural Center, BLUU)
Mary Couts Burnett Library (817-257-7117, https://library.tcu.edu/)
Math Clinic (817-257-7335, https://mathematics.tcu.edu/current-undergraduate-students/tcu-math-clinic/, 240 TUC)
Office of Student Identity and Engagement (817-257-5557, https://diversity.tcu.edu/, Intercultural Center, BLUU, Suite 1002)
Religious and Spiritual Life (817-257-7830, https://faith.tcu.edu/, First floor, Jarvis Hall)
Student Access & Accommodations (817-257-6567, https://www.tcu.edu/access-accommodation/index.php, Sadler 1010 and 1022)
Student Success (817-257-8345, https://studentsuccess.tcu.edu/, Samuelson Hall, Suite 001)
Substance Use and Recovery (817 257 7100, https://surs.tcu.edu/, Second floor of Jarvis Hall)
TCU Center for Writing (817-257-7221, https://wrt.tcu.edu/, Reed Hall 419)
TCU Police (817-257-7777 emergency OR 817 257 8400 non emergency, https://police.tcu.edu/, 3025 Lubbock)
Office of Institutional Equity (817-257-8228, https://www.tcu.edu/institutional-equity/index.php, The Harrison, Suite 1800) For more information please see the Anti-Discrimination and Title IX Information section of the syllabus below.
Transfer Student Center (817-257-7855, https://sds.tcu.edu/students/transfer-center/, Grand Marc)
TRIO (817-257-7946, https://trio.tcu.edu/, Rickel 163). TRIO Programs (TRIO) are federal outreach and student service programs designed to identify and provide college opportunities that motivate and support participants from disadvantaged backgrounds.
Veterans Services (817-257-5557, https://veteransservices.tcu.edu/, Jarvis Hall 219)

Anti-Discrimination and Title IX Information

Statement on TCU's Discrimination Policy

TCU is committed to providing a positive learning, living, and working environment free from unlawful discrimination, harassment, sexual misconduct, and retaliation. In support of this commitment, in its policy on Prohibited Discrimination, harassment, sexual misconduct and retaliation, TCU has a range of prohibited behaviors, including unlawful discrimination and harassment and related sexual and other misconduct based on age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, predisposing genetic information, covered veteran status, and any other basis protected by law. The Office of Institutional Equity (OIE) is responsible for responding to all reports of discrimination, harassment, sexual misconduct and retaliation.

Please use the following links to review TCU Policy 1.008 Prohibited Discrimination, Harassment, Sexual Misconduct and Retaliation or to review TCU Policy 1.009 Responding to Reports of Prohibited Discrimination, Harassment, Sexual Misconduct, and Retaliation.

To make a report, you may call OIE at 817-257-8228, email oie@tcu.edu, visit us at The Harrison, Suite 1800 or click here: Make a Report.
To learn about the Campus Community Response Team (CCRT) and Report a Bias Incident click here: https://inclusion.tcu.edu/campus-community-response-team/

**Title IX**

TCU’s Title IX Coordinator works within OIE. Andrea Vircks-McDew serves as TCU’s Title IX Coordinator. You may call 817-257-8228 to make a report, email oie@tcu.edu or a.vircks@tcu.edu, or make a report here. Additional Title IX resources and information are available at https://www.tcu.edu/institutional-equity/title-ix/index.php.

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep any information your share private to the greatest extent possible.

However, I have a mandatory reporting responsibility under TCU policy and federal law and I am required to share any information I receive regarding sexual harassment, discrimination, and related conduct with TCU’s Title IX Coordinator.

Students can receive confidential support and academic advocacy by contacting:

TCU’s Confidential Advocate in the Campus Advocacy, Resources & Education office at (817) 257-5225 or the Counseling & Mental Health Center at https://counseling.tcu.edu/ or by calling (817) 257-7863.

Other confidential resources on campus include:

**Religious and Spiritual Life** (817-257-7830, https://faith.tcu.edu/, Jarvis Hall)

The TCU Counseling and Mental Health Center (https://counseling.tcu.edu/) They can be reached at 817-257-7863. Their 24/7 phone counseling helpline is 817-257-SAFE (7233). They are located on the 2nd floor of Jarvis Hall.

**Obligations to Report Conduct Raising Title IX or VAWA Issues**

ALL TCU employees, except confidential resources, are considered Mandatory Reporters. Mandatory reporters are required to immediately report to OIE any conduct that raises Discrimination, Harassment, Sexual Misconduct (Title IX or Violence Against Women (VAWA)) or Retaliation. Mandatory reporters cannot promise to refrain from forwarding the information to OIE.

**Accessibility**

I am committed to your success in my class and at TCU. We all learn in different ways, and if the organization or presentation of any aspect of this course is causing a barrier to your learning, please let me know. Please talk to me as soon as you can about your individual learning needs and how this course can best accommodate them.

Students with emergency medical information or needing special arrangements in case a building must be evacuated should discuss this information with me as soon as possible.

**Statement of Disability Services at TCU**

**Student Access and Accommodation:** Texas Christian University affords students with disabilities reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. To be eligible for disability-related academic accommodations, students are required to register with the TCU Office of Student Access and Accommodation and have their requested accommodations evaluated. If approved for accommodations, students are required to...
discuss their official TCU Notification of Accommodation with their instructors. Accommodations are not retroactive and require advance notice to implement. The Office of Student Access and Accommodation is located in The Harrison, Suite 1200. More information on how to apply for accommodations can be found at [https://www.tcu.edu/access-accommodation/](https://www.tcu.edu/access-accommodation/) or by calling Student Access and Accommodation at (817) 257-6567.

**Audio Recording Notification:** Audio recordings of class lectures may be permitted by the instructor or as an approved disability accommodation through Student Access and Accommodation. Recordings are not to be shared with other students, posted to any online forum, or otherwise disseminated.

This syllabus is by no means a solo project. There are many people and resources that have helped or influenced me over the years. Particular thanks go to The Koehler Center (TCU), Emily Farris (TCU), Melissa Cheyney (OSU), Joanna Schmidt (TCU), Becky Johnson (TCU), Tony Burgess (TCU), Arthur Ehmann (TCU), Mike Slattery (TCU), Scott Langston (TCU), Jennifer Sarduy, and many I have no doubt forgotten.
Course Schedule

This represents my current plans and objectives for this course. As we go through the semester, those plans may change to enhance learning opportunities or to fit the needs of the class on that day. Such changes, communicated clearly, are not unusual and should be expected.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Due</th>
<th>What's Due</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Module 1: Introduction</strong></td>
<td></td>
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<tr>
<td>Jan 11</td>
<td>Introduction and housekeeping</td>
<td></td>
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<tr>
<td>Jan 13</td>
<td>Why focus on women in science?</td>
<td></td>
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<tr>
<td>Jan 18</td>
<td>Librarian Visit</td>
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<tr>
<td></td>
<td><strong>Module 2: Brief History of Women in Science</strong></td>
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<tr>
<td>Jan 20</td>
<td>Brief history of women in science 1: Ancient</td>
<td>Module 2 Part 1</td>
<td>Before Class: Reading Summary 1</td>
</tr>
<tr>
<td>Jan 25</td>
<td>Brief history of women in science 2: Early modern</td>
<td></td>
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<tr>
<td>Jan 27</td>
<td>Brief history of women in science 3: 18th century</td>
<td>Module 2 Part 2</td>
<td>Before Class: Reading Summary 2</td>
</tr>
<tr>
<td>Feb 1</td>
<td>Brief history of women in science 4: 19th and 20th century</td>
<td>Module 2 Part 3</td>
<td>Before Class: Reading Summary 3</td>
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<tr>
<td></td>
<td><strong>Module 3:</strong></td>
<td>Module 3 Part 1</td>
<td>Before Class: Reading Summary 4</td>
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<tr>
<td>Feb 3</td>
<td>The Gender Gap</td>
<td>Module 3 Part 1</td>
<td>Before Class: Reading Summary 5</td>
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<tr>
<td>Feb 8</td>
<td>Women in STEM in academia and the workforce</td>
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<tr>
<td>Feb 10</td>
<td>Roles at home</td>
<td>Module 3 Part 2</td>
<td>Before Class: Reading Summary 6</td>
</tr>
<tr>
<td>Feb 15</td>
<td>The impact of COVID</td>
<td></td>
<td>End of Day: Project Topic Summary</td>
</tr>
<tr>
<td>Feb 17</td>
<td>The Nobel Prize</td>
<td></td>
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<tr>
<td>Feb 22</td>
<td>Representation in the media</td>
<td></td>
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<td></td>
<td><strong>Module 4: Underrepresented Minority Women in Science</strong></td>
<td>Module 4 Part 1</td>
<td>Before Class: Reading Summary 7</td>
</tr>
<tr>
<td>Feb 24</td>
<td>Women of color in science</td>
<td>Module 4 Part 1</td>
<td>Before Class: Reading Summary 8</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Indigenous women in science</td>
<td>Module 4 Part 2</td>
<td>Before Class: Reading Summary 9</td>
</tr>
<tr>
<td>Mar 3</td>
<td>Queer women in science</td>
<td>Module 4 Part 2</td>
<td>Before Class: Reading Summary 10</td>
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<tr>
<td>Mar 8</td>
<td>Spring Break</td>
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<tr>
<td>Mar 10</td>
<td>Spring Break</td>
<td></td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Reading Due</td>
<td>What's Due</td>
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<tr>
<td>Module 5: Women in Science</td>
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<tr>
<td>Mar 15</td>
<td>The Manhatten Project/the Calutron Girls</td>
<td>End of Day: Research Paper Draft for Peer</td>
<td>Peer Review</td>
</tr>
<tr>
<td>Mar 17</td>
<td>ENAIC Programmers, Women in Bletchley Park</td>
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<tr>
<td>Mar 22</td>
<td>Women of NASA</td>
<td>Before Class: Reflection 1</td>
<td></td>
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<tr>
<td>Mar 24</td>
<td>The Trimates</td>
<td>Before Class: Reflection 1</td>
<td></td>
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<tr>
<td>Mar 29</td>
<td>Biology/Chemistry</td>
<td>Before Class: Reflection 2</td>
<td>End of Day: Research Paper Draft for Instructor</td>
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<tr>
<td>Mar 31</td>
<td>Medicine/Psychology</td>
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<tr>
<td>Apr 5</td>
<td>Geology/Environmental Science</td>
<td>Before Class: Reflection 3</td>
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<tr>
<td>Apr 7</td>
<td>Physics/Astronomy</td>
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<tr>
<td>Apr 12</td>
<td>Maths/Engineering/Computer Science</td>
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<tr>
<td>Apr 14</td>
<td>Project Discussions</td>
<td>Before Class: Reflection 4</td>
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<tr>
<td>Apr 19</td>
<td>Project Discussions</td>
<td></td>
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<tr>
<td>Apr 21</td>
<td>Poster presentations</td>
<td>Before Class: Final Presentation Slides</td>
<td></td>
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<tr>
<td>Apr 26</td>
<td>Poster presentations</td>
<td>End of Day: Research Paper</td>
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<tr>
<td>TBD</td>
<td></td>
<td></td>
<td>End of Day: Museum Exhibit Proposal</td>
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</table>
Class Project

Throughout the semester, you will work on a project focused on a woman (or women) in science of your choosing, which is worth 50% of your total grade in the class. This is divided up into two main parts and five graded items.

Project Guide: You should chose a woman in science (or a group of women in science) who you believe has not received the level of recognition they deserve for the significant contribution they have made to their field. While they do not have to be well-known, there should be enough information readily available so that you are able to complete all the tasks in the project.

Project Description

Research Paper Description

You will write a research paper on a woman in science (or a group of women in science) who you believe has not received the level of recognition they deserve for the significant contribution they have made to their field. Your paper should justify your selection and discuss the historical context behind their lack of recognition.

Museum Exhibit Proposal Description

Brief: The Monnig Meteorite Gallery has two cabinets outside the Monnig that need an updated display. As this is the only part of the Monnig that is accessible at all times the building is open, it would benefit from a series of temporary exhibits that could be changed every few months. A year-long history exhibit featuring different women in science has been selected for this space. You have been asked to design one of these exhibits on your chosen topic.

Requirements:

- Your proposal should not fabricate any aspect of the historical past. Your proposal should be built around real historical events related to your chosen topic.
- Throughout your proposal, you should draw on your research, and, if appropriate, class material to support your decisions. Citations should always be given in the Chicago Author-Date system.
- Your proposal should contain the following:
  - Introduction to the topic of the exhibit
  - Justification of the topic’s importance to the Curator
  - Statement of goals for the visitors to the exhibit
  - A full mockup of how your exhibit would look
    This includes the text/images/artifacts/video you want to include. You should explain what your project will look (and sound and feel) like and explain how or why the decisions you have made support your goals.
  - Artifacts or other objects you want to include in your exhibit (this can include video, but you would need to link this in your proposal) and a justification of why each one is important.
  - Anticipating visitor response
    How do you think visitors may respond to the material? Is there a way you can address these in the exhibit or provide additional material for them to continue their learning? Could it be viewed as controversial? Why? Why is it still important to cover these topics? How have you accommodated this in your design?
• An assessment of how accessible your exhibit is for all learners and strategies that can be employed to maximize this.
• Conclusion
• Citations

Project Grade

1. Project Summary (2%)

Due: February 17th

This assignment is a two page, double spaced summary of the topic you have chosen for your class project. You must also include at least ten references in a list, cited in Chicago Author-Date style. These references do not all need to be cited in the text. They are required to demonstrate that you have already done some research into the topic and to ensure you have chosen a topic with enough information for your project. I will read each summary and give you my feedback as to whether I believe it is a suitable topic for you.

2. Research Paper (20%)

As described above, you will be working on a research paper on your chosen topic throughout the semester. There are three deadlines that are associated with this paper. It will be graded using the rubric provided.

Deadline 1: Peer Review (counted separately)

Due: March 15th

See section 3. Peer Review for a description of what is due on this date.

Deadline 2: First Draft to Instructor (8%)

Due: March 29th

Deadline 3: Final Draft to Instructor (12%)

Due: April 26th

3. Peer Review (3%)

Due: March 15th (you hand in your draft to be reviewed)

Your draft should be a complete draft of the research paper portion of your portfolio, which means that all sections should be present and typed out. If you do not hand in a complete draft, then you will not get the same level of feedback, which may affect your grade. Your draft should be provided via TCUOnline as a word document.

You will be provided with the full draft of a classmate’s project to review on this date.

Due: March 22nd (you complete your peer review of someone else’s draft)

You must review the research paper of one of your peers by this date. While I understand the preference to edit work by hand on a printed copy, this feedback is not as accessible to all students, so we will use track changes in word for all peer reviews. You will then upload a copy of your edits, comments, and suggestions to TCUOnline by this date.

If you do not review your peer’s work, then your final research paper will not be graded by the instructor.

4. Museum Exhibit Proposal (15%)
Due: TBD (Date of Final)

5. Presentation of Museum Exhibit Proposed (10%)

You will give a ten minute presentation on your proposed museum exhibit. This should include:

• The topic of the exhibit
• A justification as to its importance
• Explanation of the main layout
• The main points you wish your exhibit to convey to visitors
• What objects you wish to include in your exhibit and why
• How your exhibit can be made accessible

Due: April 21st

Your presentation slides should be submitted to TCUOnline before class on April 21st. They may be in powerpoint or keynote.

Dates of presentations: April 21st and April 26th

Each student will be given a maximum of 10 minutes to present their museum exhibit idea to the class. I will invite Women and Gender Studies and Environmental Science faculty members to attend. All attendees will be provided with feedback forms and your presentation grade will be determined by their feedback.
<table>
<thead>
<tr>
<th>Category</th>
<th>1 (Unsatisfactory)</th>
<th>2 (Satisfactory)</th>
<th>3 (Good)</th>
<th>4 (Excellent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Any of the following: Little evidence material is locally organized. Paper does not flow, is hard to read. Quotes are relied upon too heavily. No clear introduction is present. The paper does not end with a sense of closure, it appears unfinished.</td>
<td>Paper contains an intro, main body, and conclusion, but may lack some organization locally (within sections). The introduction gives the reader an idea of what to expect in the paper, but does not effectively lay out the main argument. The conclusion does little more than restate the introduction. Intro and/or conclusion may be too wordy or short. The paper does not end with a sense of closure, it appears somewhat unfinished.</td>
<td>Paper contains an intro, main body, and conclusion. The introduction lays out the main argument but gives the reader little idea of what to expect. The conclusion nicely summarizes the main argument and evidence, but does not move beyond what has already been presented in the paper.</td>
<td>Paper contains an intro, main body, and conclusion. Introduction lays out main argument and gives an outline of what the reader can expect in the essay. The conclusion brings everything together, acknowledges potential shortcomings of the paper, and gives the reader a sense of what further work might be done to advance the subject matter described in the paper.</td>
</tr>
<tr>
<td>Evidence</td>
<td>Either no evidence is provided, or there are numerous factual mistakes, omissions or oversimplifications. There is little or no mention of information from lectures and readings.</td>
<td>Not enough evidence is provided to support author’s argument, or evidence is incomplete, incorrect, or oversimplified. Information from lectures and readings is not effectively used.</td>
<td>Provides necessary evidence to convince reader of most aspects of the main argument but not all. The importance/relevance of some evidence presented may not be totally clear. Reader must make a few mental leaps or do some additional research to fully accept all aspects of main argument.</td>
<td>Provides compelling and accurate evidence that convinces reader to accept main argument. The importance/relevance of all pieces of evidence is clearly stated. There are no gaps in reasoning—i.e., the reader does not need to assume anything or do additional research to accept main argument.</td>
</tr>
<tr>
<td>Counter-Evidence</td>
<td>No acknowledgement of counter-evidence or alternative interpretations.</td>
<td>Author acknowledges some of the most obvious counter-evidence and alternative explanations, but is not comprehensive in this task. There is little or no attempt made to respond to them.</td>
<td>Author acknowledges that counter-evidence or alternative interpretations exists, and lists them fully, but does not effectively explain to reader why his/her argument still stands.</td>
<td>The author considers the evidence, or alternate interpretations of evidence, that could be used to refute or weaken his/her argument, and thoughtfully responds to it.</td>
</tr>
</tbody>
</table>

1 Acknowledgment: This rubric uses some content adapted from the work of Dr. Aronson, as provided by the Eberly Center for Teaching Excellence, Carnegie Mellon University. [https://www.cmu.edu/teaching/designteach/teach/rubrics.html](https://www.cmu.edu/teaching/designteach/teach/rubrics.html)
<table>
<thead>
<tr>
<th>Formatting</th>
<th>Final paper is not in the correct format</th>
<th>Final paper is double spaced, not more than 3000 words, but word count is not given, 1 inch margins were used</th>
<th>Final paper is double spaced, not more than 3000 words, with word count given, 1 inch margins were used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td>Paper is full of grammatical errors and bad writing. Several words are misused. Technical terms, words from other languages, and words from other historical periods are rarely explained. Not all information is accurate and up-to-date. Paper has not been spell-checked or proofread, and contains numerous errors. Reader has a difficult time understanding essay because of errors.</td>
<td>A few sentences are grammatically incorrect or not clearly written. Several words are misused. Technical terms, words from other languages, and words from other historical periods are rarely explained. Not all information is accurate and up-to-date. Paper has been spell-checked AND proofread, but still contains several errors. Reader’s ability to understand essay may be compromised by these errors.</td>
<td>All sentences are grammatically correct and clearly written. An occasional word is misused or unnecessarily fancy. Technical terms, words from other languages, and words from other historical periods are usually, but not always, explained. All information is accurate and up-to-date. Paper has been spell-checked AND proofread, and contains no more than a few minor errors, which do not adversely affect the reader’s ability to understand the essay.</td>
</tr>
<tr>
<td>Sources</td>
<td>Does not use sources OR only minimal uses source provided by instructor OR relies exclusively on non-scholarly outside sources</td>
<td>Uses only a few of the sources provided in class OR does not go beyond what has been provided by instructor</td>
<td>Evidence is used from many sources, but relies on a limited set OR mostly dependent on class material OR outside resources are mostly non-scholarly</td>
</tr>
<tr>
<td>Citations</td>
<td>Citations were not given.</td>
<td>Citations were not given correctly AND/OR in the format requested (Chicago, Author-date).</td>
<td>Citations were given in the format requested (Chicago, Author-date), with a few minor errors.</td>
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<td>Citations were given correctly in the format requested (Chicago, Author-Date).</td>
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Papers later than 24 hours after the deadline will not be accepted
Reading Summaries

There will be required background reading assigned in Modules 2 and 3 of this course. Completion of the assigned reading will ensure that everyone is prepared for the classroom discussions over each topic. You will be asked to complete six written summaries of the readings assigned.

They will be graded using the following rubric.

<table>
<thead>
<tr>
<th>Category</th>
<th>1 (Unsatisfactory)</th>
<th>2 (Satisfactory)</th>
<th>3 (Good)</th>
<th>4 (Excellent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>Mainly quotes from or relies too heavily on original wording and/or inaccurately represents the author’s argument and/or summary focuses on personal opinion rather than neutrally presenting the text. Demonstrates little to no engagement with the text and/or inaccurate understanding.</td>
<td>Accurately summarizes the main argument in original language though summary may be overly general, vague or overlook key supporting claims. Demonstrates surface level engagement with material and limited, if accurate, understanding.</td>
<td>Accurately summarizes main argument in original language, may overlook one or two key supporting points. Demonstrates engagement with and solid understanding.</td>
<td>Neutrally and accurately synthesizes the main ideas and argument of text, along with key supporting claims, in original language. Demonstrates deep intellectual engagement with and understanding of material.</td>
</tr>
<tr>
<td>Organization</td>
<td>The essay lacks an organizational strategy on both the paragraph and sentence levels.</td>
<td>Includes an introduction and conclusion, yet they may contain ambiguities or irrelevant information and some development may be needed. Body paragraphs include summary and critique, but sequencing of ideas is illogical or hard to follow. Ineffective transitions.</td>
<td>Provides an organizational structure that includes an effective introduction and conclusion. Body paragraphs include well-developed summary and critique with effective topic sentences, sequencing of ideas and transitions, though some development may be needed.</td>
<td>Provides an effective organizational structure that includes sophisticated introductory and conclusion paragraphs. All body paragraphs include well-developed summary and critique with strong topic sentences, effective sequencing of ideas and smooth</td>
</tr>
<tr>
<td>Clarity and</td>
<td>Any of the following: Little evidence material is locally organized. Summary does not flow, is hard to read. Quotes are relied upon too heavily. No clear introduction is present. The paper does not end with a sense of closure, it appears unfinished.</td>
<td>Any of the following: Summary lacks some organization, especially locally. The introduction is present but not all that clear. The paper does not end with a sense of closure, it appears somewhat unfinished.</td>
<td>All of the following: Summary is well organized but some work is needed on transitions. A clear introduction is given to the topic. There is a sense of closure at the end of the paper.</td>
<td>All of the following: Summary is well organized. Text flows well with smooth transitions between paragraphs and is easy to follow. A clear introduction is given to the topic. There is a sense of closure at the end of the paper.</td>
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<tr>
<td>Style</td>
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1 Acknowledgment: This rubric uses some content adapted from the work of the FYW Program, Dept. of English, University of West Georgia. https://www.westga.edu/academics/coah/writing/summary_and_response_rubric.php
| **Grammar**       | Paper is full of grammatical errors. Several words are misused. Technical terms, words from other languages or disciplines are rarely explained. Not all information is accurate. Paper has not been spell-checked or proofread, and contains numerous errors. Reader has a difficult time understanding essay because of errors. | A few sentences are grammatically incorrect or not clearly written. Several words are misused. Technical terms, words from other languages or disciplines are rarely explained. Not all information is accurate. Paper has been spell-checked AND proofread, but still contains several errors. Reader’s ability to understand essay may be compromised by these errors. | All sentences are grammatically correct and clearly written. An occasional word is misused or unnecessarily fancy. Technical terms, words from other languages or disciplines are usually, but not always, explained. All information is accurate. Paper has been spell-checked AND proofread, and contains no more than a few minor errors, which do not adversely affect the reader’s ability to understand the essay. | All sentences are grammatically correct and clearly written. No words are misused or unnecessarily fancy. Technical terms, words from other languages or disciplines are always explained. All information is accurate. Paper has been spell-checked AND proofread (ideally by you and somebody else), and contains no errors. |
| **Formatting**    | Summary is not in the correct format. | Summary is double spaced, 1 inch margins were used, it is between 2 and 5 pages in length not including citations. |  |
| **Citations**     | Citations were not given. | Citations were not given correctly AND/OR in the format requested (Chicago, Author-date). | Citations were given in the format requested (Chicago, Author-date), with a few minor errors. | Citations were given correctly in the format requested (Chicago, Author-Date). |

Papers later than 24 hours after the deadline will not be accepted.
UNDERGRADUATE COUNCIL
Request for Change(s)

Originating unit requesting change: Computer Science

Type of Change requested: Prerequisites and course description

☐ Course number(s) ☐ Course prerequisite(s)
☐ Course title ☐ Drop course(s)
☐ Course description ☐ Drop program(s)
☐ Program description ☐ Program requirements

Semester and year change(s) take effect: Spring 2022

Appropriate computer abbreviation if course title is more than 30 spaces:

Briefly summarize the change requested:

Changing / updating prerequisites for COSC 30253 Computer Organization.

Programs Only
Program Name: ____________________________________________

Current Code: ________ Proposed New Code (list 2): ________ or ________
(ex: INDE-BFA)

Can have second major: ____Yes____ No

Current 6-digit CIP Code: __________
Does the change require a new or change in CIP code? ____Yes____ No

If yes, what is the proposed 6-digit CIP code? __________
*for reference, please visit: https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56
1. What is the justification for the change(s) requested?

We are changing the semester offered for COSC 30253 - Computer Organization from Fall to Spring. (COSC 30203 - Computer System Fundamentals will move to the Fall.) No longer requiring COSC 30203 as a prerequisite. Students will need to have completed COSC 20803 - Data Structures.

2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.

This will not change the current program outcomes and assessment mechanisms.

3. **Faculty Resources:** How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

   N/A
4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?
   - YES
   - NO
   If yes, list additional resources needed.

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

   [Signature]
   Approval signature of chairperson of originating unit

Revised 02/2020
UNDERGRADUATE COUNCIL

Request for New Course

Originating unit requesting course: Computer Science
New course title: Object-Oriented Programming and Design Patterns
New course number: COSC 40453

Appropriate computer abbreviation if title is more than 30 spaces: OOP and Design Patterns

Prerequisites for new course:
COSC 30403

Effective date for course (semester and year): Fall 2022

Instructional methodology (Click in box to the left of the name to select a course type.) (See departmental chairperson or deans for definition of type.):

- activity
- clinical
- directed study
- internship
- laboratory
- lecture
- lecture w/integrated lab
- performance
- research
- seminar
- study abroad

Description of new course (as it will appear in catalog copy):

COSC 40453 - Object-Oriented Programming and Design Patterns (3)
Prerequisites: COSC 30403

This course teaches how to write code of high quality by providing an in-depth coverage of object-oriented programming principles and techniques. Topics include but not limited to fundamental object-oriented programming concepts, software design principles (SOLID), Gang of Four (GoF) design patterns, coding standards, refactoring. Each topic will be explained by using diagrammatic notations Unified Modeling Language (UML) and numerous real-world code demos.
1. **Submit a representative course syllabus that includes the following:**
   a. A concise course description including the course purpose (e.g. fulfill part of university, college, or department mission, discipline requirement, program enrichment, etc.) and course instructional methodology (e.g. lecture, laboratory, lecture and laboratory, clinical, internship, etc.)
   b. the goals of the course;
   c. a clear statement of course expectations - essentially, what students shall be expected to do in order to satisfactorily complete the course at different performance levels (generally speaking, what does it take to get an A, B, C, etc.);
   d. a statement of the faculty member's policies on attendance, make-up work, missed exams, etc;
   e. information concerning major projects or papers and when these assignments must be completed by the students;
   f. information about the number and dates of the exams;
   g. statements reflecting TCU policy regarding accommodations under Americans with Disabilities Act (ADA) (**this disabilities statement MUST be included verbatim**) and university policy regarding academic misconduct (**this statement**, while not required, may be used); and
   h. a statement indicating how the instructor can be reached and how office hour requirements will be met.

   A syllabus template, which includes these required elements and others, is available from the Koehler Center.

2. **Faculty Resources: How will the unit provide faculty support for this course?**
   **Describe how this course will impact other current departmental listings.**

   The department plans to offer this new course every year. One Computer Science professor with experience in this domain has taught this OOP course as an elective during Fall 2020. The feedback from students is very positive and many students strongly suggest the department offering this course regularly. This course can be used as an elective course for both COSC and CITE majors provided they have the prerequisites. The addition of this new course will better prepare our students in other computer science courses and future career.

3. **Educational Resources: Will this course require additional resources not currently available (e.g., space, equipment, library)?**
   □ Yes   ☒ No

4. **If this course affects other units of the University, include a statement signed by chairperson of the affected unit(s).**

5. **If cross-listed, provide evidence of approval of all curriculum committees appropriate to both the originating and cross-listed units.**

6. **If this course is to be delivered online, include a letter from the Koehler Center stating that program administrators and identified faculty are working with the Koehler Center to fulfill TCU Distance Learning requirement.**

   [Signature]

   Approval signature of chairperson of originating unit

Revised 11/2013
Course Syllabus
COSC 40453 – Object-Oriented Programming and Design Patterns
Computer Science Department

Last update: October 19, 2021

Instructor Information
Instructor: Bingyang Wei
Office Location: Tucker Technology Center (TUC) 341D
E-mail: b.wei@tcu.edu
Office Phone: 817-257-4876
Office Hours: MW: 2pm – 3pm
TuThur: 2pm-5:30pm
Response Time: Emails/Slack messages will be responded within 12 hours

Course Identification
Course Number: COSC 40453
Course Name: Object-Oriented Programming and Design Patterns
Class Times: MW 3:30pm - 4:50pm
Class Location:

Course Description/Overview
This course teaches students to write code of high quality by providing an in-depth coverage of object-oriented programming principles and techniques. Topics include (1) fundamental object-oriented programming concepts (Objects and Classes, Abstraction, Encapsulation, Inheritance, Polymorphism, Interfaces, Abstract Classes and Generics), (2) software design principles (Single Responsibility Principle, Open/Closed Principle, Liskov Substitution Principle, Interface Segregation Principle, Dependency Inversion Principle, Law of Demeter, Composition/Aggregate Reuse Principle), (3) design patterns (aka Gang of Four (GoF) patterns), (4) coding standards, (5) refactoring, (6) core features since Java 8. Each topic will be explained by using diagrammatic notations called Unified Modeling Language (UML) and numerous code demos.

Goals of the Course
Students completing this course are expected to be able to:

1) Demonstrate adeptness of object-oriented programming in developing solutions to problems demonstrating usage of data abstraction, encapsulation, and inheritance
2) Demonstrate ability to implement one or more patterns involving realization of an abstract interface and utilization of polymorphism in the solution of problems which can take advantage of dynamic dispatching
3) Explain different OOP concepts, principles, design patterns and methods
4) Evaluate quality of programs written by others
5) Analyze and draw UML diagrams given a piece of open-source code written by others
6) Learn and apply new Java 8 features in programs, including lambda expression, stream APIs

Course Resources

Technologies
- TCU Online<https://tcuonline.tcu.edu/>:
  - I will use TCU Online to distribute class materials electronically, please log into TCU Online system frequently to receive the updates.
- Email
  - The official TCU student email address will be used for all course notification. It is your responsibility to check your TCU email on a regular basis
- Slack App
  - I will also use Slack app to make class announcements, e.g. due day change, class cancellation, assignment clarification.
  - Slack is also a good place for Q&A
  - PLEASE download the Slack app on both your phone and computer, and TURN ON its notification so you won’t miss my announcement
  - It is your responsibility to check your Slack on a regular basis

Course Materials
TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructor. Accessing, copying, transporting (to another person or location), modifying, or destroying programs, records, or data belonging to TCU or another user without authorization, whether such data is in transit or storage, is prohibited. The full policy can be found at: https://security.tcu.edu/polproc/usage-policy/.

Violating this policy is considered a violation of Section 3.2.15 of the Student Code of Conduct (this policy may be found in the Student Handbook at https://tcu.codes/code/index/), and may also constitute Academic Misconduct or Disruptive Classroom Behavior (these policies may be found in the undergraduate catalog at https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details). TCU encourages student debate and discourse; accordingly, TCU generally interprets and applies its policies, including the policies referenced above, consistent with the values of free expression and First Amendment principles.

Required Course Textbook
- Thinking in Java 4th Edition by Bruce Eckel

Other Useful Resources
- Effective Java 3rd Edition by Joshua Bloch
- Intro to Java Programming, Comprehensive Version 10th Edition by Y. Daniel Liang
Grading Scheme

Grading Policy
Grades will be based on the following:

- Midterm: 20%
- Final: 20%
- Homework (5): 30%
- Quizzes (5): 10%
- Presentation (1): 10%
- Discussion Post (5): 10%

Late Assignments
Every assignment must be uploaded to TCU Online no later than the beginning of class on the due day.

Late assignment incurs a 15% penalty for each late day, including weekend and holidays. Assignments that are late more than TWO days will NOT be accepted (except for Official University Absences or medical reasons).

Students are responsible for making sure the assignment is uploaded properly. Failing to do so results in a ZERO for that assignment.

Missed Quizzes
If you miss a quiz, you CANNOT make it up (except for Official University Absences or medical reasons).

Missed Exams
Make up exams will be given only for Official University Absences or absences approved in advance by the instructor. Such absences include documented medical illnesses or family emergencies.

Attendance:
Students are expected to attend all lectures.

Questions on Grading
Requests for re-evaluation of points on exams, assignments, and projects must be made to the instructor within one week of receiving your grade and accompanied by a brief written description of the grading error you believe was made. After this time, grades are final. Resubmission for re-evaluation subjects the entire assignment for review. This means that if an error was made in your favor, you may lose points when re-submitting.
Grading Scale
The following grading scale will be used in this course (overall score will be rounded to the nearest whole number that is greater than the score)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90–100</td>
</tr>
<tr>
<td>B</td>
<td>80–89</td>
</tr>
<tr>
<td>C</td>
<td>70–79</td>
</tr>
<tr>
<td>D</td>
<td>60–69</td>
</tr>
<tr>
<td>F</td>
<td>0–59</td>
</tr>
</tbody>
</table>

Policies

Academic Dishonesty:
You are encouraged to discuss assignments in general terms with your classmates or the instructor. However, you are not permitted to receive solutions from others or to read or copy part or all of others’ solution to a problem. All work turned in must be your own. Any proven allegation of academic dishonesty will result in the offending student receiving a grade of zero for the assignment and reporting to the Dean’s office. Two occurrences of cheating will result in the instructor recommending a course grade of F to the (Associate) Dean.

Student Access and Accommodation:
Texas Christian University affords students with disabilities reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. To be eligible for disability-related academic accommodations, students are required to register with the TCU Office of Student Access and Accommodation and have their requested accommodations evaluated. If approved for accommodations, students are required to discuss their official TCU Notification of Accommodation with their instructors. Accommodations are not retroactive and require advance notice to implement. The Office of Student Access and Accommodation is located in The Harrison, Suite 1200. More information on how to apply for accommodations can be found at https://www.tcu.edu/access-accommodation/ or by calling Student Access and Accommodation at (817) 257-6567.

Anti-Discrimination and Title IX Information:
Statement on TCU’s Discrimination Policy

TCU prohibits discrimination and harassment based on age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, predisposing genetic information, covered veteran status, and any other basis protected by law, except as permitted by law. TCU also prohibits unlawful sexual and gender-based harassment and violence, sexual assault, incest, statutory rape, sexual exploitation, intimate partner violence,
bullying, stalking, and retaliation. We understand that discrimination, harassment, and sexual violence can undermine students’ academic success and we encourage students who have experienced any of these issues to talk to someone about their experience, so they can get the support they need.

- Review TCU’s Policy on Prohibited Discrimination, Harassment and Related Conduct or to file a complaint: https://titleix.tcu.edu/title-ix/
- Learn about the Campus Community Response Team and Report a Bias Incident: https://titleix.tcu.edu/campus-community-response-team/

Statement on Title IX at TCU

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep any information you share private to the greatest extent possible. However, I have a mandatory reporting responsibility under TCU policy and federal law and I am required to share any information I receive regarding sexual harassment, discrimination, and related conduct with TCU’s Title IX Coordinator. Students can receive confidential support and academic advocacy by contacting TCU’s Confidential Advocate in the Campus Advocacy, Resources & Education office at https://care.tcu.edu/ or by calling (817) 257-5225 or the Counseling & Mental Health Center at https://counseling.tcu.edu/ or by calling (817) 257-7863. Alleged violations can be reported to the Title IX Office at https://titleix.tcu.edu/student-toolkit/ or by calling (817) 257-8228. Should you wish to make a confidential report, the Title IX Office will seek to maintain your privacy to the greatest extent possible, but cannot guarantee confidentiality. Reports to law enforcement can be made to the Fort Worth Police Department at 911 for an emergency and (817) 335-4222 for non-emergency or TCU Police at (817) 257-7777.

Obligations to Report Conduct Raising Title IX or VAWA Issues

Mandatory Reporters: All TCU employees, except Confidential Resources, are considered Mandatory Reporters for purposes of their obligations to report, to the Coordinator, conduct that raises Title IX and/or VAWA (Violence Against Women Act) issues.

Mandatory Reporters are required to immediately report to the Coordinator information about conduct that raises Title IX and/or VAWA issues, including any reports, complaints or allegations of sexual harassment, discrimination and those forms of prohibited conduct that relate to nonconsensual sexual intercourse or contact, sexual exploitation, intimate partner violence, stalking and retaliation involving any member of the TCU community, except as otherwise provided within the Policy on Prohibited Discrimination, Harassment and Related Conduct.

Mandatory Reporters may receive this information in a number of ways. For example, a complainant may report the information directly to a Mandatory Reporter, a witness or third-party may provide information to a Mandatory Reporter, or a Mandatory Reporter may personally witness such conduct. A Mandatory Reporter’s obligation to report such information to the Coordinator does not depend on how he/she received the information. Mandatory
Reporters must provide all known information about conduct that raises Title IX or VAWA issues to the Coordinator, including the identities of the parties, the date, time and location, and any other details. Failure of a Mandatory Reporters to provide such information to the Coordinator in a timely manner may subject the employee to appropriate discipline, including removal from a position or termination of employment.

Mandatory Reporters cannot promise to refrain from forwarding the information to the Coordinator if it raises Title IX or VAWA issues or withhold information about such conduct from the Coordinator. Mandatory Reporters may provide support and assistance to a complainant, witness, or respondent, but they should not conduct any investigation or notify the respondent unless requested to do so by the Coordinator.

Mandatory Reporters are not required to report information disclosed (1) at public awareness events (e.g., “Take Back the Night,” candlelight vigils, protests, “survivor speak-outs,” or other public forums in which students may disclose such information (collectively, public awareness events); or (2) during an individual’s participation as a subject in an Institutional Review Board approved human subjects research protocol (IRB Research). TCU may provide information about Title IX rights and available resources and support at public awareness events, however, and Institutional Review Boards may, in appropriate cases, require researchers to provide such information to all subjects of IRB Research.

Relevant reporting phone numbers are: 911 for an emergency and (817) 335-4222 for non-emergency or TCU Police at (817) 257-7777.

**Class Norms and Netiquette:**

All members of the class are expected to follow rules of common courtesy in all email messages, discussions, and chats. If I deem any of them to be inappropriate or offensive, I will forward the message to the Chair of the department and appropriate action will be taken, not excluding expulsion from the course. The same rules apply online as they do in person. Be respectful of other students. Foul discourse will not be tolerated. Please take a moment and read the basic information about netiquette ([http://www.albion.com/netiquette/](http://www.albion.com/netiquette/)).


**Emergency Response Information:**

Please review TCU’s L.E.S.S. is More public safety video to learn about Lockdown, Evacuate, and Seek Shelter procedures. ([https://publicsafety.tcu.edu/less-is-more/](https://publicsafety.tcu.edu/less-is-more/))

TCU’s Public Safety website provides maps that show our building’s rally point for evacuation and the seek shelter location. ([https://publicsafety.tcu.edu/](https://publicsafety.tcu.edu/))

In the event of an emergency, call the TCU Police Department at 817-257-7777.
Download the Frogshield Campus Safety App on your phone.

(https://police.tcu.edu/frogshield/).

**Academic Misconduct:**

Academic Misconduct (Sec. 3.4 from the TCU Code of Student Conduct): Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Office of Campus Life and are also listed in detail in the Undergraduate Catalog and the Graduate Catalog. Specific examples include, but are not limited to:

- **Cheating:** Copying from another student’s test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.

- **Plagiarism:** The appropriation, theft, purchase or obtaining by any means another’s work, and the unacknowledged submission or incorporation of that work as one’s own offered for credit. Appropriation includes the quoting or paraphrasing of another’s work without giving credit therefore. [If you are using Turnitin, place information about your course ID/password or state that items will be checked as part of the TCU Online assignment submission process. If you want to use Turnitin as a spot check, indicate that you may use Turnitin for plagiarism detection.]

- **Collusion:** The unauthorized collaboration with another in preparing work offered for credit.

- **Abuse of resource materials:** Mutilating, destroying, concealing, or stealing such material.

- **Computer misuse:** Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs, terminals, or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.

- **Fabrication and falsification:** Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.

- **Multiple submission:** The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.

- **Complicity in academic misconduct:** Helping another to commit an act of academic misconduct.

- **Bearing false witness:** Knowingly and falsely accusing another student of academic misconduct.
Course Schedule

This calendar represents my current plans and objectives. As we go through the semester, those plans *may need to change* to enhance the class learning opportunities. Such changes will be clearly communicated.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>08/17</td>
<td>OOP Fundamentals – Objects and Classes, Memory Layout</td>
</tr>
<tr>
<td></td>
<td>08/19</td>
<td>OOP Fundamentals – Information Hiding</td>
</tr>
<tr>
<td>2</td>
<td>08/24</td>
<td>OOP Fundamentals – Inheritance and Polymorphism</td>
</tr>
<tr>
<td></td>
<td>08/26</td>
<td>OOP Fundamentals – Object Instantiation Process</td>
</tr>
<tr>
<td>3</td>
<td>08/31</td>
<td>OOP Fundamentals – Abstract Classes and Interfaces, Programming to Interface</td>
</tr>
<tr>
<td></td>
<td>09/02</td>
<td>OOP Fundamentals – Generics</td>
</tr>
<tr>
<td>4</td>
<td>09/07</td>
<td>Java Reflection API</td>
</tr>
<tr>
<td></td>
<td>09/09</td>
<td>UML and Software Design Principles (SOLID)</td>
</tr>
<tr>
<td>5</td>
<td>09/14</td>
<td>Software Design Principles (SOLID)</td>
</tr>
<tr>
<td></td>
<td>09/16</td>
<td>Refactoring</td>
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<tr>
<td>6</td>
<td>09/21</td>
<td>Refactoring (cont.)</td>
</tr>
<tr>
<td></td>
<td>09/23</td>
<td><strong>Midterm</strong></td>
</tr>
<tr>
<td>7</td>
<td>09/28</td>
<td>Design Patterns – Singleton</td>
</tr>
<tr>
<td></td>
<td>09/30</td>
<td>Design Patterns – Factory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design Patterns – Builder</td>
</tr>
<tr>
<td>8</td>
<td>10/05</td>
<td>Design Patterns – Decorator, Bridge, Façade</td>
</tr>
<tr>
<td></td>
<td>10/07</td>
<td>Design Patterns – Adapter</td>
</tr>
<tr>
<td>9</td>
<td>10/12</td>
<td>Design Patterns – Composite, Flyweight</td>
</tr>
<tr>
<td></td>
<td>10/14</td>
<td>Design Patterns – Proxy</td>
</tr>
<tr>
<td>10</td>
<td>10/19</td>
<td>Design Patterns – Observer</td>
</tr>
<tr>
<td></td>
<td>10/21</td>
<td>Design Patterns – Chain of Responsibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Last day to drop (October 22)</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>P/NC date (October 23)</strong></td>
</tr>
<tr>
<td>11</td>
<td>10/26</td>
<td>Design Patterns – Strategy</td>
</tr>
<tr>
<td></td>
<td>10/28</td>
<td>Design Patterns – Iterator, Template</td>
</tr>
<tr>
<td>12</td>
<td>11/02</td>
<td>Design Patterns – State</td>
</tr>
<tr>
<td></td>
<td>11/04</td>
<td>Design Patterns – Memento</td>
</tr>
<tr>
<td>13</td>
<td>11/09</td>
<td>Tomcat Source Code</td>
</tr>
<tr>
<td></td>
<td>11/11</td>
<td>Tomcat Source Code (cont.)</td>
</tr>
<tr>
<td>14</td>
<td>11/16</td>
<td>Spring IoC Source Code</td>
</tr>
<tr>
<td></td>
<td>11/18</td>
<td>Spring IoC Source Code (cont.)</td>
</tr>
<tr>
<td>15</td>
<td>11/23</td>
<td><strong>Thanksgiving holiday</strong></td>
</tr>
<tr>
<td></td>
<td>11/25</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>11/30</td>
<td>Spring AOP Source Code</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Topics</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>17</td>
<td>12/2</td>
<td>Spring AOP Source Code (cont.)</td>
</tr>
<tr>
<td></td>
<td>12/7</td>
<td>Last Lecture</td>
</tr>
<tr>
<td></td>
<td>12/9</td>
<td><strong>Final exam:</strong> 2:00pm-4:30pm</td>
</tr>
</tbody>
</table>
UNDERGRADUATE COUNCIL

Request for New Course

Originating unit requesting course: ENSC

New course title: History of Women in Science

New course number: ENSC 30123

Prerequisites for new course:

Sophomore in standing, or WGST 20003 Introduction to Women and Gender Studies, or permission of the instructor.

Effective date for course (semester and year): Spring 2022

Instructional methodology (Click in box to the left of the name to select a course type.) (See departmental chairperson or deans for definition of type.):

- [ ] activity
- [ ] clinical
- [ ] directed study
- [ ] internship
- [ ] laboratory
- [ ] lecture
- [ ] lecture w/integrated lab
- [ ] performance
- [ ] research
- [ ] seminar
- [ ] study abroad

Description of new course (as it will appear in catalog copy):

This course will examine the reasons behind the gender-related differences in STEM today and review the societal and cultural reasons behind the historical exclusion and erasure of the contributions of women to the STEM fields. We will explore and evaluate the contributions of women to the advancement of science throughout history.
Request for New Course

1. **Submit a representative course syllabus that includes the following:**
   a. A concise course description including the course purpose (e.g. fulfill part of university, college, or department mission, discipline requirement, program enrichment, etc.) and course instructional methodology (e.g. lecture, laboratory, lecture and laboratory, clinical, internship, etc.)
   b. the goals of the course;
   c. a clear statement of course expectations - essentially, what students shall be expected to do in order to satisfactorily complete the course at different performance levels (generally speaking, what does it take to get an A, B, C, etc.?);
   d. a statement of the faculty member's policies on attendance, make-up work, missed exams, etc;
   e. information concerning major projects or papers and when these assignments must be completed by the students;
   f. information about the number and dates of the exams;
   g. statements reflecting TCU policy regarding accommodations under Americans with Disabilities Act (ADA) (**this disabilities statement MUST be included verbatim**) and university policy regarding academic misconduct (**this statement**, while not required, may be used); and
   h. a statement indicating how the instructor can be reached and how office hour requirements will be met.

   A [syllabus template](#), which includes these required elements and others, is available from the Koehler Center.

2. **Faculty Resources: How will the unit provide faculty support for this course?**
   Describe how this course will impact other current departmental listings.

   This will not impact other listings.

3. **Educational Resources: Will this course require additional resources not currently available (e.g., space, equipment, library)?**
   Yes  No

4. **If this course affects other units of the University, include a statement signed by chairperson of the affected unit(s).**

   N/A

5. **If cross-listed, provide evidence of approval of all curriculum committees appropriate to both the originating and cross-listed units.**

6. **If this course is to be delivered online, include a letter from the Koehler Center stating that program administrators and identified faculty are working with the Koehler Center to fulfill TCU Distance Learning requirement.**
Revised 11/2013
Syllabi are your guidebook to any course you are taking. They are a must read. However, syllabi are also very long, somewhat dry (ok very dry) documents and it can be hard to know where to find the information you need if you are not familiar with them. In addition, each Professor often approaches their syllabi slightly differently. For this reason, this page contains a guide to each section of the following syllabus, to help you navigate it better.

Please do not hesitate to contact me with any questions about the contents of the syllabus.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Description</td>
<td>2</td>
</tr>
<tr>
<td>Teaching Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td>3</td>
</tr>
<tr>
<td>- Course level</td>
<td></td>
</tr>
<tr>
<td>- Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Instructional Method</td>
<td>4</td>
</tr>
<tr>
<td>Course Materials</td>
<td>4</td>
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Who? What? Where? When?

Instructor: Dr. Rhiannon Mayne, she/her/hers.
            r.g.mayne@tcu.edu

Class Times: Tuesday and Thursday 15:30 – 16:50 pm

Office Hours: Thursday 11.30 - 1.30 and by appointment.

If you have any questions about class material, assignments, or just want to chat, then office hours are your chance to do that with me. These hours can be in person or via Zoom Meeting ID: 954 2398 3817

How to contact me: For simple questions, please email me and include the topic in the subject line of your email. For more information please see the Communication Expectations section under Course Policies and Expectations.

Final Evaluative Exercise

The final evaluative exercise in this course is a Museum Exhibit Proposal based on project work you will complete throughout the semester. It is due the day of our scheduled final, which is on XXXXX.

Course Description

Prerequisites: Sophomore in standing, or WGST 20003 Introduction to Women and Gender Studies, or permission of the instructor. Three hours of lecture a week

This course will:

1. Examine the reasons behind the gender-related differences in STEM today.

2. Review the societal and cultural reasons behind the historical exclusion and erasure of the contributions of women to the STEM fields.

3. Explore and evaluate the contributions of women to the advancement of science throughout history.

Teaching Philosophy

As an educator, my overall focus is to promote learning by engaging students in learning experiences that take advantage of the multi-disciplinary aspect of my work and the diversity of interests, opinions, and backgrounds of my students. I do not believe in only teaching for a test, instead I aim to foster skills such as critical thinking, problem solving, and teamwork. I strongly believe that science is not an individual endeavor; the most progress requires the strength and support of a community. I try to reflect that environment in my classroom, so all members (including myself) are able to learn and contribute.
Learning Outcomes

The Learning Outcomes for this course are:

**Course-level:**

(1) Students will demonstrate an awareness of how the intersectional effects of gender, sex, sexuality, race, ethnicity, and ability have influenced the STEM fields throughout history and into the present day.

*Student Action steps:* (1) Students will examine and analyze research into the sociocultural factors that led to: (a) the exclusion and erasure of the contributions of women to the STEM fields throughout history, (b) gender-related differences in STEM fields today. (2) Students will produce written summaries that require them to evaluate sources from a variety of perspectives.

(2) Students will be able to explain the contributions of women to the advancement of science throughout history.

*Student Action steps:* (1) Students will explore the contributions that women scientists have made to STEM from ancient times through to the modern day. (2) Students will present a final project on the contribution of a female scientist of their choosing.

**Natural Science:**

(3) Students will demonstrate a basic understanding of some of the great ideas in the natural sciences.

*Student Action steps:* (1) Students will examine some of the major ideas appropriate to the area of study, including how such ideas resulted from a scientifically reasoned investigation. For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles, or theories.

(4) Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society.

*Student Action steps:* (1) Students will explore the relationships between science, technology, and society appropriate to the natural science discipline. Students will: describe the roles that each plays in the others’ development, and identify the benefits and problems associated with each relationship.

**Historical Traditions:**

(5) Students will demonstrate an ability to critically evaluate historical discourse, and to develop evidence-based conclusions about the past.

*Student Action steps:* (1) Students will examine and analyze a variety of historical sources and interpretations. (2) Students will present their evidence-based interpretations about the past.
Instructional Method

This course will involve lectures, class discussions, and hands-on exercises in lab. I make all my lectures available on TCUOnline. However, please do not mistake having these available as a reason to skip class as my slides are very visual, and are not a substitute for taking notes.

I ensure that all graphs, especially those that show trends over time, are up-to-date and relevant and I try to cover no more than two major take-home points or big themes in each class. I will begin most lectures with an open-ended, critical thinking question and address the relevance of that question, either from a practical or theoretical standpoint. I find this focusing question gives the students an immediate foundation for the material and inspires their intrinsic curiosity. You should be asking yourself right at the outset of each class “Why should I care about this topic?”

Course Materials

TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructor. Accessing, copying, transporting (to another person or location), modifying, or destroying programs, records, or data belonging to TCU or another user without authorization, whether such data is in transit or storage, is prohibited. The full policy can be found at: https://security.tcu.edu/polproc/usage-policy/.

Violating this policy is considered a violation of Section 3.2.15 of the Student Code of Conduct (this policy may be found in the Student Handbook at https://tcu.codes/code/index/), and may also constitute Academic Misconduct or Disruptive Classroom Behavior (these policies may be found in the undergraduate catalog at https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details). TCU encourages student debate and discourse; accordingly, TCU generally interprets and applies its policies, including the policies referenced above, consistent with the values of free expression and First Amendment principles.

Required Text:

There is no required text for this class.

Assessment

Participation

Participation is is 10% of your grade in this class. It will be graded using the rubric below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-10</td>
<td>Arrives on time or early for class; participates actively; contributes meaningfully to class discussion; tries to “dig deeper” and analyze texts; asks strong, thoughtful questions; encourages classmates to participate; does NOT text during class or become otherwise distracted.</td>
</tr>
<tr>
<td>6-8</td>
<td>Arrives on time for class; volunteers participation; contributes to discussion but comments are more superficial in nature (i.e. opinion-based or reflection); asks thoughtful questions; supports classmates who participate; does NOT text during class or become otherwise distracted.</td>
</tr>
<tr>
<td>5-6</td>
<td>Arrives late for class (less than 5 minutes); participates when called on to do so (but does not volunteer); might ask questions but mostly about assignments or logistics instead of course content; texts during class or becomes otherwise distracted.</td>
</tr>
<tr>
<td>1-5</td>
<td>Arrives very late to class (more than 5 minutes); little to no participation; unprepared for class discussion; texts in class or becomes otherwise distracted (sleeping, technology, daydreaming, etc.).</td>
</tr>
</tbody>
</table>
I will assess your participation, but you will play an equal part in this assessment by completing this rubric yourself for every class session. You will provide a rationale for the points you’ve awarded your contributions to our class community. These sheets will also be used to mark attendance. While I will honor your self-assessments, please know that I will read through them after every class; I will contact you if I see a large discrepancy between our evaluations so that we can discuss what might be contributing to our different perceptions.

Assignments

There are three main categories of assignments in this course:

1. Reading Summaries¹: You will be asked to write six summaries over the assigned readings throughout the semester.

2. Reflections: You will be asked to submit four brief written reflections on the women we discuss in Module 5. Your reflections will be submitted to TCUOnline and should include: (a) what the contribution of each woman/group of women was to their discipline; (b) your own personal reflection on the material. They should be 1-2 paragraphs in length and written in the first person. While reflective writing uses a more informal and personal tone, your reflections should still be written in complete sentences, and grammatically correct. While I do not give any set structure for these assignments, you are welcome to follow the DIEP model or Gibb’s reflective cycle as a guide.

1. Class Project²: Your class project is 50% of your total grade and it is broken up into five separate graded items.

Grading

Final grade elements/grade breakdown:

<table>
<thead>
<tr>
<th>Learning Outcome*</th>
<th>Assignments</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Class Participation</td>
<td>10</td>
</tr>
<tr>
<td>1, 3, 4, 5</td>
<td>Module reading summaries (six in total)¹</td>
<td>30</td>
</tr>
<tr>
<td>2, 3, 4</td>
<td>Reflections (four in total)</td>
<td>10</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project²: Topic Summary</td>
<td>2</td>
</tr>
<tr>
<td>1, 3, 4, 5</td>
<td>Project²: Peer Review of Research Paper</td>
<td>3</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project²: Research Paper</td>
<td>20</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project²: Museum Exhibit Design</td>
<td>15</td>
</tr>
<tr>
<td>1, 2, 3, 4, 5</td>
<td>Project²: Virtual Exhibit Presentation</td>
<td>10</td>
</tr>
</tbody>
</table>

*Learning outcomes are defined and numbered on p3 of this syllabus.

¹Please see the separate handout for a full description of the assignment and the rubric that will be used for grading purposes.

²This is a multi-part assignment. Please see the separate handout for a full description of each assignment, its constituent parts, and for the relevant rubrics.
Course grades will be based on the following scale:

<table>
<thead>
<tr>
<th>%</th>
<th>&lt;60</th>
<th>≥60 - &lt;70</th>
<th>≥70 - &lt;80</th>
<th>≥80 - &lt;90</th>
<th>≥90 - 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>F</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

Important note: While the table above suggests no flexibility when it comes to the grade distribution, here is how I finalize grades in this class. First, I total all assignments and tasks, and then rank the final numeric scores of each student from highest to lowest. I then look for statistically significant breaks between “grade clusters.” For example, if the first few grades are: 94, 92.3, 90.1, 89.7, 89.5, 89.1, 88.0, 87.9, and so on, the A/B cut-off would be 89.1 and above, because the next grade down, the 88.0, is a full 1.1 percentage points below 89.1. Ultimately, this helps you and, in my opinion, makes the process fairer.

Grade discussions:
I am very aware how important grades are to you and I am always happy to discuss your grade and your performance in this class. Please understand that such conversations are much better held earlier in the semester, so that they can have the most impact. It is important that you understand that I give the same opportunities to every student in this class and, for this reason, I will never assign extra credit to an individual student so that they may improve their grade. Such requests will not be entertained. There will be no curve given in this class.

Grade Appeal: If you feel that you have received an incorrect or unfair grade on an assignment, please email me. Your email should contain which assignment/grade you wish to contest and why you do not believe the grade to be correct. Your email should be sent within one week of grade receipt.

Late work policy: Life happens and it doesn’t care about a deadline, so please let me know if something is going on in your life that is affecting your ability to meet a deadline. However, if you do not contact me or have a justifiable reason for missing a deadline, a full letter grade penalty (10%) will be given the first day (<24 hours late). A two letter grade penalty (20%) will be given for late work >24 hours late. I will not accept any assignments more than 48 hours after the assignment deadline.

Course Policies and Expectations

Civility Policy
In accordance with the philosophy of an institution of higher learning, the classroom should be a place where diverse ideas can be explored with respect in order to promote growth.

We each come from a variety of backgrounds and bring with us different experiences to the classroom. Regardless of whether or not we share similar opinions and beliefs, I expect us to remain respectful of each other as we explore ideas. I encourage you to express yourself with reason, clarity, courtesy, and compassion. This ensures that we may be comfortable learning and growing without fear of judgment, ridicule, or intimidation. I welcome each of you as worthy contributors in the classroom. Student conduct that disrupts the learning process will not be tolerated and may lead to disciplinary action and/or removal from class.

In line with expectations set in the Code of Conduct found in the TCU Student Handbook (https://tcu.codes/), the following contradict the ethos of this course and will not be permitted in any form in this course.
1. Ad hominem attacks or attacks on an individual’s or group of individuals’ character on the basis of gender, race, class, ethnicity, national origin, religion, sexual orientation, gender identity, disability, or other personal characteristics.

2. Epithets or other language intended to intimidate, demean, or incite violence.

3. Editorial content that is harmful, threatening, abusive, demeaning, or libelous.

**Attendance**

I expect you to attend each class prepared, having covered all assigned material, and ready to engage in our discussions. While I do not take attendance, absences may impact your grade as participation is part of your grade and class time is one of your main opportunities to ask any questions you may have.

**Netiquette**

The same rules apply online as they do in person. Be respectful of other students. Foul discourse will not be tolerated. Please take a moment and read the basic information about netiquette (http://www.albion.com/netiquette/).

Participating in the virtual realm, including social media sites and shared-access sites sometimes used for educational collaborations, should be done with honor and integrity. This site provides guidance on personal media accounts and sites (http://www.uh.edu/marcom/guidelines-policies/social-media/index).

**Communication Expectations**

**Email:** Email is best used for short questions that do not require an immediate response. I will check our emails during regular working hours 8.30am – 5pm and endeavor to respond to you the same day, except on weekends. It is possible that you will receive a prompt response to a 10pm email on a Saturday, but please don’t expect it.

Only the official TCU student email address will be used for all course notification. I expect that you will check your TCU email on a regular basis.

**Office Hours:** Office hours are a great time to come ask any questions you might have about the course, or your university experience as a whole. I welcome comments and feedback about the course and am always happy to discuss ways to improve my courses, or why certain assignments, readings, or policies have been chosen. I encourage you to take advantage of this time.

While I set certain times aside for office hours, I am always happy to make appointments outside of the hours noted on the syllabus.

**Technology Policies**

**Cell-phones** may be not used. Please silence your phones during class times so they aren’t a distraction. I will do the same.

**Recording devices** are not permitted.

**TCU Online**

**Getting Started with TCU Online:** Access via my.tcu.edu > Student Quick Links > TCU Online OR Login (http://d2l.tcu.edu) and enter your TCU network credentials (the same you use for MyTCU). For information about logging into TCU Online, view these instructions (http://tcuonline.tcu.edu/kb/how-do-i-log-in/).
If you have not yet taken the TCU Online Student Orientation Tutorial, please do so now. To access it, click on the "Student Orientation Tutorial" on your home page. Follow the instructions in the course.

Make sure you check the list of technical requirements for using the system (https://community.brightspace.com/s/article/Brightspace-Platform-Requirements)

Getting Help with TCU Online: If you experience any technical problems while using TCU Online, please do not hesitate to contact the D2L HELP DESK. They can be reached by phone or chat 24 hours a day, 7 days a week, 365 days a year.

**Phone:** 1-877-325-7778  
**Chat:** Chat is available within TCU Online in the Help menu on the navigation bar.

If you have a course-related issue with TCUOnline (course content, assignment troubles, quiz difficulties) please contact me.

**Personal Settings & Notifications for TCU Online:** As a student, you should set up your account settings, profile, and notifications. To do this you will login to TCU Online and select your name on the top right of the screen. You can upload a photo of yourself and add personal information to your profile. In the notifications area, you can add your phone number to receive text messages when grades are given as well as reminder texts for upcoming assignments and quizzes.

**Recommended App for Use with TCU Online:** Pulse is a phone app which gives you access to the course calendar, assignments, grades, and announcements. This app provides a graph that can help you manage your time. Based on the number of assignments and events on the course calendar for your classes, the graph will display busy times for class work in the upcoming week. You can use this app to manage your daily workload and includes the ability to view and access course materials offline. Students can download Pulse from the Google Play or Apple Store. Students can learn more and download Pulse here: https://www.d2l.com/products/pulse/.

**ReadSpeaker:** includes a number of tools that can enhance your understanding and comprehension of course materials. ReadSpeaker can create an audio version of content that you can listen to while on a page within a course or that you can download to listen offline. ReadSpeaker can also read Microsoft Office files and PDFs. There are additional tools and features to assist you with reading and focusing in TCU Online, tools that provide support for writing and proofing text, and tools that can read non-TCU Online content aloud. You can learn more about how to use ReadSpeaker tools here: https://tcuonline.tcu.edu/how-to-hub/instructor-how-to-hub-for-tcu-online/integrations-and-mobile/readspeaker/

**Academic Misconduct**

Academic Misconduct (Sec. 3.4 from the TCU Code of Student Conduct): Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Dean of Students' Office and are listed in detail in the Undergraduate Catalog (https://www.tcu.edu/catalog.php). Specific examples include, but are not limited to:

**Cheating:** Copying from another student’s test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.
**Plagiarism:** The appropriation, theft, purchase or obtaining by any means another’s work, and the unacknowledged submission or incorporation of that work as one’s own offered for credit. Appropriation includes the quoting or paraphrasing of another’s work without giving credit therefore. Turnitin will be used in this course, via a TCU Online dropbox to check all written assignments for plagiarism.

**Collusion:** The unauthorized collaboration with another in preparing work offered for credit.

**Abuse of Resource Materials:** Mutilating, destroying, concealing, or stealing such material

**Computer Misuse:** Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs, terminals, or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.

**Fabrication and Falsification:** Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.

**Multiple Submission:** The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.

**Complicity in Academic Misconduct:** Helping another to commit an act of academic misconduct.

**Bearing False Witness:** Knowingly and falsely accusing another student of academic misconduct

**Policy on Children in Class**

As a working parent, I am happy to problem-solve any issues you may have so that you feel supported as you strive for school-parenting balance. Currently, the university does not have a formal policy on children in the classroom. The policy described here is just a reflection of my own beliefs and commitments to student, staff, and faculty parents:

I understand that unforeseen disruptions in childcare and schooling often put parents in the position of having to stay home with a child. This is particularly true this year during the pandemic. You are welcome to dial into class with a child present to class in order to cover gaps in care;

I ask that all students work with me to create a welcoming environment that is respectful in terms of diversity, including diversity in parenting status.

**TCU Policy for Religious Observations & Holidays**

“Students who are unable to participate in a class, in any related assignment or in a university required activity because of the religious observance of a holy day shall be provided with a reasonable opportunity to make up the examination or assignment, without penalty, provided that it does not create an unreasonable burden on the University.” For more information, please visit the TCU Policy for Religious Observations & Holidays webpage.
The Impact of COVID

Have you been Vaccinated Against COVID-19?
Fill out the vaccine survey by scanning the QR code to the right.

Campus Life

The health and safety of students, faculty, and staff is Texas Christian University’s highest priority. Safety protocols may change during the semester and may result in modifications or changes to the teaching format, delivery method, or the course schedule (e.g., altering meeting times or frequency; changing beginning or ending dates for a term; or partially or completely moving from a face-to-face classroom teaching to an online teaching or remote learning format). Any changes in teaching format, delivery method, or course schedule will not impact the credit hours for the course.

Are you feeling unwell? Let TCU know.
If you are exhibiting symptoms that may be related to COVID-19 (fever or chills, dry cough, shortness of breath, etc.) or are concerned that you may have been exposed to COVID-19, you must self-quarantine and consult with the Brown Lupton Health Center at 817-257-7949 for further guidance.

In addition, you must notify the Dean of Students immediately at 817-257-7926 or use the TCU COVID-19 Self-Report Hotline, 817-257-2684 (817-257-COVI). The Dean of Students’ Office will inform your professors that you are unable to attend class and provide any assistance and support needed. Click here for detailed information concerning COVID-19 symptoms: https://www.cdc.gov/coronavirus.

If you are unwell but are not exhibiting potential COVID-19-related symptoms, please notify your instructor as soon as possible that you are ill and will not be attending class.

Face Coverings and Physical Distancing:
Face masks are currently required in TCU classrooms, per the TCU Campus Readiness Task Force: Face Mask Policy. Students not complying with classroom face mask requirements may be referred to Dean of Students Mike Russel.

If TCU lifts the face mask requirement before the end of Fall 2021, the instructor may continue to require face masks in their classrooms. At that point, the instructor will notify the students of their decision and update their syllabus accordingly. 
Note: I will require face masks in the classroom for the entirety of the Fall 2021 semester.
**Emergency Response Information**

Please review TCU's L.E.S.S. is More public safety video to learn about Lockdown, Evacuate, and Seek Shelter procedures. ([https://publicsafety.tcu.edu/less-is-more/](https://publicsafety.tcu.edu/less-is-more/))

TCU’s Public Safety website provides maps that show our building’s rally point for evacuation and the seek shelter location. ([https://publicsafety.tcu.edu/](https://publicsafety.tcu.edu/))

In the event of an emergency, call the TCU Police Department at **817-257-7777**.

Download the Frogshield Campus Safety App on your phone. ([https://police.tcu.edu/frogshield/](https://police.tcu.edu/frogshield/))

**Resources and Support**

During your time as a student at TCU, there are many things that you may experience or encounter that may impact both your learning and personal life. These may include inadequate resources, stress, anxiety, alcohol and drug related issues, depression, and many more. If I can help connect you to a resource, please me know.

Please let me know if there is a resource you believe I should add to this list or if any of the information is incorrect.

The TCU Counseling and Mental Health Center ([https://counseling.tcu.edu/](https://counseling.tcu.edu/)) offers free, confidential mental health services. They can be reached at 817-257-7863. Their 24/7 phone counseling helpline is 817-257-SAFE (7233). They are located on the 2nd floor of Jarvis Hall.

The Dean of Students’ Office office ([https://deanofstudents.tcu.edu/](https://deanofstudents.tcu.edu/)) is available to assist with any student concerns, including resolving personal emergencies (817-257-7926 or deanofstudents@tcu.edu, First floor of The Harrison, Suite 1600).

**Other resources on campus include:**

- **Academic Advising** (817-257-7486, [https://www.tcu.edu/academics/advising/index.php](https://www.tcu.edu/academics/advising/index.php), Jarvis Hall, 147)
- **Brown-Lupton Health Center** (817-257-7940, [https://healthcenter.tcu.edu/](https://healthcenter.tcu.edu/), 2825 Stadium Drive)
- **The Campus Community Response Team** ([https://titleix.tcu.edu/campus-community-response-team/](https://titleix.tcu.edu/campus-community-response-team/)) manage and review the response of bias incidents involving TCU students. A bias incident is an act or behavior motivated by the offender’s bias against another’s identity which may include, but is not limited to, race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, immigration status, age, disability, genetic information or covered veteran status. Bias occurs whether the act is intentional or unintentional, may be directed toward an individual or group and may by initiated by an individual or group. Bias may contribute to creating an unsafe or unwelcoming environment. You can report a bias incident on their website ([https://titleix.tcu.edu/campus-community-response-team/report-a-bias-incident-here/](https://titleix.tcu.edu/campus-community-response-team/report-a-bias-incident-here/)).
- **Career Services** (817-257-7686, careers@tcu.edu, [https://careers.tcu.edu/](https://careers.tcu.edu/))
- **International Services** (817-257-7292, [https://internationalservices.tcu.edu/](https://internationalservices.tcu.edu/), Intercultural Center, BLUU)

Mary Couts Burnett Library (817-257-7117, https://library.tcu.edu/)

Math Clinic (817-257-7335, https://mathematics.tcu.edu/current-undergraduate-students/tcu-math-clinic/, 240 TUC)


Office of Student Identity and Engagement (817-257-5557, https://diversity.tcu.edu/, Intercultural Center, BLUU, Suite 1002)

Religious and Spiritual Life (817-257-7830, https://faith.tcu.edu/, First floor, Jarvis Hall)

Student Access & Accommodations (817-257-6567, https://www.tcu.edu/access-accommodation/index.php, Sadler 1010 and 1022)

Student Success (817-257-8345, https://studentsuccess.tcu.edu/, Samuelson Hall, Suite 001)

Substance Use and Recovery (817 257 7100, https://surs.tcu.edu/, Second floor of Jarvis Hall)

TCU Center for Writing (817-257-7221, https://wrt.tcu.edu/, Reed Hall 419)

TCU Police (817-257-7777 emergency OR 817 257 8400 non emergency, https://police.tcu.edu/, 3025 Lubbock)

Office of Institutional Equity (817-257-8228, https://www.tcu.edu/institutional-equity/index.php, The Harrison, Suite 1800) For more information please see the Anti-Discrimination and Title IX Information section of the syllabus below.

Transfer Student Center (817-257-7855, https://sds.tcu.edu/students/transfer-center/, Grand Marc)

TRIO (817-257-7946, https://trio.tcu.edu/, Rickel 163). TRIO Programs (TRIO) are federal outreach and student service programs designed to identify and provide college opportunities that motivate and support participants from disadvantaged backgrounds.

Veterans Services (817-257-5557, https://veteransservices.tcu.edu/, Jarvis Hall 219)

Anti-Discrimination and Title IX Information

Statement on TCU’s Discrimination Policy

TCU is committed to providing a positive learning, living, and working environment free from unlawful discrimination, harassment, sexual misconduct, and retaliation. In support of this commitment, in its policy on Prohibited Discrimination, harassment, sexual misconduct and retaliation, TCU has a range of prohibited behaviors, including unlawful discrimination and harassment and related sexual and other misconduct based on age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, predisposing genetic information, covered veteran status, and any other basis protected by law. The Office of Institutional Equity (OIE) is responsible for responding to all reports of discrimination, harassment, sexual misconduct and retaliation.

Please use the following links to review TCU Policy 1.008 Prohibited Discrimination, Harassment, Sexual Misconduct and Retaliation or to review TCU Policy 1.009 Responding to Reports of Prohibited Discrimination, Harassment, Sexual Misconduct, and Retaliation.

To make a report, you may call OIE at 817-257-8228, email oie@tcu.edu, visit us at The Harrison, Suite 1800 or click here: Make a Report.
To learn about the Campus Community Response Team (CCRT) and Report a Bias Incident click here: https://inclusion.tcu.edu/campus-community-response-team/

**Title IX**

TCU's Title IX Coordinator works within OIE. Andrea Vircks-McDew serves as TCU’s Title IX Coordinator. You may call 817-257-8228 to make a report, email oie@tcu.edu or a.vircks@tcu.edu, or make a report here. Additional Title IX resources and information are available at https://www.tcu.edu/institutional-equity/title-ix/index.php.

As an instructor, one of my responsibilities is to help create a safe learning environment on our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep any information your share private to the greatest extent possible.

However, I have a mandatory reporting responsibility under TCU policy and federal law and I am required to share any information I receive regarding sexual harassment, discrimination, and related conduct with TCU's Title IX Coordinator.

Students can receive confidential support and academic advocacy by contacting:

TCU’s Confidential Advocate in the Campus Advocacy, Resources & Education office at (817) 257-5225 or the Counseling & Mental Health Center at https://counseling.tcu.edu/ or by calling (817) 257-7863.

Other confidential resources on campus include:

- Religious and Spiritual Life (817-257-7830, https://faith.tcu.edu/, Jarvis Hall)
- The TCU Counseling and Mental Health Center (https://counseling.tcu.edu/) They can be reached at 817-257-7863. Their 24/7 phone counseling helpline is 817-257-SAFE (7233). They are located on the 2nd floor of Jarvis Hall.

**Obligations to Report Conduct Raising Title IX or VAWA Issues**

ALL TCU employees, except confidential resources, are considered Mandatory Reporters. Mandatory reporters are required to immediately report to OIE any conduct that raises Discrimination, Harassment, Sexual Misconduct (Title IX or Violence Against Women (VAWA)) or Retaliation. Mandatory reporters cannot promise to refrain from forwarding the information to OIE.

**Accessibility**

I am committed to your success in my class and at TCU. We all learn in different ways, and if the organization or presentation of any aspect of this course is causing a barrier to your learning, please let me know. Please talk to me as soon as you can about your individual learning needs and how this course can best accommodate them.

Students with emergency medical information or needing special arrangements in case a building must be evacuated should discuss this information with me as soon as possible.

**Statement of Disability Services at TCU**

**Student Access and Accommodation:** Texas Christian University affords students with disabilities reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. To be eligible for disability-related academic accommodations, students are required to register with the TCU Office of Student Access and Accommodation and have their requested accommodations evaluated. If approved for accommodations, students are required to
discuss their official TCU Notification of Accommodation with their instructors. Accommodations are not retroactive and require advance notice to implement. The Office of Student Access and Accommodation is located in The Harrison, Suite 1200. More information on how to apply for accommodations can be found at https://www.tcu.edu/access-accommodation/ or by calling Student Access and Accommodation at (817) 257-6567.

**Audio Recording Notification:** Audio recordings of class lectures may be permitted by the instructor or as an approved disability accommodation through Student Access and Accommodation. Recordings are not to be shared with other students, posted to any online forum, or otherwise disseminated.

This syllabus is by no means a solo project. There are many people and resources that have helped or influenced me over the years. Particular thanks go to The Koehler Center (TCU), Emily Farris (TCU), Melissa Cheyney (OSU), Joanna Schmidt (TCU), Becky Johnson (TCU), Tony Burgess (TCU), Arthur Ehlmann (TCU), Mike Slattery (TCU), Scott Langston (TCU), Jennifer Sarduy, and many I have no doubt forgotten.
Course Schedule

This represents my current plans and objectives for this course. As we go through the semester, those plans may change to enhance learning opportunities or to fit the needs of the class on that day. Such changes, communicated clearly, are not unusual and should be expected.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Due</th>
<th>What's Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1: Introduction</td>
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<td></td>
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<tr>
<td>Jan 11</td>
<td>Introduction and housekeeping</td>
<td></td>
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<tr>
<td>Jan 13</td>
<td>Why focus on women in science?</td>
<td></td>
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<tr>
<td>Jan 18</td>
<td>Librarian Visit</td>
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<tr>
<td>Module 2: Brief History of Women in Science</td>
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<tr>
<td>Jan 20</td>
<td>Brief history of women in science 1: Ancient</td>
<td>Module 2 Part 1</td>
<td>Before Class: Reading Summary 1</td>
</tr>
<tr>
<td>Jan 25</td>
<td>Brief history of women in science 2: Early modern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 27</td>
<td>Brief history of women in science 3: 18th century</td>
<td>Module 2 Part 2</td>
<td>Before Class: Reading Summary 2</td>
</tr>
<tr>
<td>Feb 1</td>
<td>Brief history of women in science 4: 19th and 20th century</td>
<td></td>
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<tr>
<td>Module 3:</td>
<td></td>
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<tr>
<td>Feb 3</td>
<td>The Gender Gap</td>
<td>Module 3 Part 1</td>
<td>Before Class: Reading Summary 3</td>
</tr>
<tr>
<td>Feb 8</td>
<td>Women in STEM in academia and the workforce</td>
<td></td>
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<tr>
<td>Feb 10</td>
<td>Roles at home</td>
<td>Module 3 Part 2</td>
<td>Before Class: Reading Summary 4</td>
</tr>
<tr>
<td>Feb 15</td>
<td>The impact of COVID</td>
<td></td>
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<tr>
<td>Feb 17</td>
<td>The Nobel Prize</td>
<td></td>
<td>End of Day: Project Topic Summary</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Representation in the media</td>
<td></td>
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<tr>
<td>Module 4: Underrepresented Minority Women in Science</td>
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<tr>
<td>Feb 24</td>
<td>Women of color in science</td>
<td>Module 4 Part 1</td>
<td>Before Class: Reading Summary 5</td>
</tr>
<tr>
<td>Mar 1</td>
<td>Indigenous women in science</td>
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<tr>
<td>Mar 3</td>
<td>Queer women in science</td>
<td>Module 4 Part 2</td>
<td>Before Class: Reading Summary 6</td>
</tr>
<tr>
<td>Mar 8</td>
<td>Spring Break</td>
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<tr>
<td>Mar 10</td>
<td>Spring Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Topic</td>
<td>Reading Due</td>
<td>What's Due</td>
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<tr>
<td>Mar 15</td>
<td>The Manhattan Project/the Calutron Girls</td>
<td>End of Day: Research Paper Draft for Peer Review</td>
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<tr>
<td>Mar 17</td>
<td>ENAIC Programmers, Women in Bletchley Park</td>
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<tr>
<td>Mar 22</td>
<td>Women of NASA</td>
<td>Before Class: Reflection 1</td>
<td>Before Class: Peer Review Complete</td>
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<tr>
<td>Mar 24</td>
<td>The Trimates</td>
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<tr>
<td>Mar 29</td>
<td>Biology/Chemistry</td>
<td>Before Class: Reflection 2</td>
<td>Before Class: Peer Review Complete</td>
</tr>
<tr>
<td>Mar 31</td>
<td>Medicine/Psychology</td>
<td></td>
<td>Before Class: Reflection 2</td>
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<tr>
<td>Apr  5</td>
<td>Geology/Environmental Science</td>
<td>Before Class: Reflection 3</td>
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<tr>
<td>Apr  7</td>
<td>Physics/Astronomy</td>
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<tr>
<td>Apr 12</td>
<td>Maths/Engineering/Computer Science</td>
<td>Before Class: Reflection 3</td>
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<tr>
<td>Apr 14</td>
<td>Project Discussions</td>
<td>Before Class: Reflection 4</td>
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</tr>
<tr>
<td>Apr 19</td>
<td>Project Discussions</td>
<td>Before Class: Final Presentation Slides</td>
<td></td>
</tr>
<tr>
<td>Apr 21</td>
<td>Poster presentations</td>
<td>Before Class: Final Presentation Slides</td>
<td></td>
</tr>
<tr>
<td>Apr 26</td>
<td>Poster presentations</td>
<td>End of Day: Research Paper</td>
<td></td>
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<tr>
<td>TBD</td>
<td></td>
<td>End of Day: Museum Exhibit Proposal</td>
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</tbody>
</table>
Class Project

Throughout the semester, you will work on a project focused on a woman (or women) in science of your choosing, which is worth 50% of your total grade in the class. This is divided up into two main parts and five graded items.

Project Guide: You should choose a woman in science (or a group of women in science) who you believe has not received the level of recognition they deserve for the significant contribution they have made to their field. While they do not have to be well-known, there should be enough information readily available so that you are able to complete all the tasks in the project.

Project Description

Research Paper Description

You will write a research paper on a woman in science (or a group of women in science) who you believe has not received the level of recognition they deserve for the significant contribution they have made to their field. Your paper should justify your selection and discuss the historical context behind their lack of recognition.

Museum Exhibit Proposal Description

Brief: The Monnig Meteorite Gallery has two cabinets outside the Monnig that need an updated display. As this is the only part of the Monnig that is accessible at all times the building is open, it would benefit from a series of temporary exhibits that could be changed every few months. A year-long history exhibit featuring different women in science has been selected for this space. You have been asked to design one of these exhibits on your chosen topic.

Requirements:

• Your proposal should not fabricate any aspect of the historical past. Your proposal should be built around real historical events related to your chosen topic.
• Throughout your proposal, you should draw on your research, and, if appropriate, class material to support your decisions. Citations should always be given in the Chicago Author-Date system.
• Your proposal should contain the following:
  • Introduction to the topic of the exhibit
  • Justification of the topic’s importance to the Curator
  • Statement of goals for the visitors to the exhibit
  • A full mockup of how your exhibit would look
    This includes the text/images/artifacts/video you want to include. You should explain what your project will look (and sound and feel) like and explain how or why the decisions you have made support your goals.
  • Artifacts or other objects you want to include in your exhibit (this can include video, but you would need to link this in your proposal) and a justification of why each one is important.
  • Anticipating visitor response
    How do you think visitors may respond to the material? Is there a way you can address these in the exhibit or provide additional material for them to continue their learning? Could it be viewed as controversial? Why? Why is it still important to cover these topics? How have you accommodated this in your design?
• An assessment of how accessible your exhibit is for all learners and strategies that can be employed to maximize this.
• Conclusion
• Citations

Project Grade

1. Project Summary (2%

*Due: February 17th*

This assignment is a two page, double spaced summary of the topic you have chosen for your class project. You must also include at least ten references in a list, cited in Chicago Author-Date style. These references do not all need to be cited in the text. They are required to demonstrate that you have already done some research into the topic and to ensure you have chosen a topic with enough information for your project. I will read each summary and give you my feedback as to whether I believe it is a suitable topic for you.

2. Research Paper (20%)

As described above, you will be working on a research paper on your chosen topic throughout the semester. There are three deadlines that are associated with this paper. It will be graded using the rubric provided.

   *Deadline 1: Peer Review (counted separately)*

*Due: March 15th*

See section 3. Peer Review for a description of what is due on this date.

   *Deadline 2: First Draft to Instructor (8%)*

*Due: March 29th*

   *Deadline 3: Final Draft to Instructor (12%)*

*Due: April 26th*

3. Peer Review (3%)

*Due: March 15th (you hand in your draft to be reviewed)*

Your draft should be a complete draft of the research paper portion of your portfolio, which means that all sections should be present and typed out. If you do not hand in a complete draft, then you will not get the same level of feedback, which may affect your grade. Your draft should be provided via TCUOnline as a word document.

You will be provided with the full draft of a classmate’s project to review on this date.

*Due: March 22nd (you complete your peer review of someone else’s draft)*

You must review the research paper of one of your peers by this date. While I understand the preference to edit work by hand on a printed copy, this feedback is not as accessible to all students, so we will use track changes in word for all peer reviews. You will then upload a copy of your edits, comments, and suggestions to TCUOnline by this date.

If you do not review your peer’s work, then your final research paper will not be graded by the instructor.

4. Museum Exhibit Proposal (15%)

Page 2 of 3
Due: TBD (Date of Final)

5. Presentation of Museum Exhibit Proposed (10%)

You will give a ten minute presentation on your proposed museum exhibit. This should include:

- The topic of the exhibit
- A justification as to its importance
- Explanation of the main layout
- The main points you wish your exhibit to convey to visitors
- What objects you wish to include in your exhibit and why
- How your exhibit can be made accessible

Due: April 21st

Your presentation slides should be submitted to TCUOnline before class on April 21st. They may be in powerpoint or keynote.

Dates of presentations: April 21st and April 26th

Each student will be given a maximum of 10 minutes to present their museum exhibit idea to the class. I will invite Women and Gender Studies and Environmental Science faculty members to attend. All attendees will be provided with feedback forms and your presentation grade will be determined by their feedback.
<table>
<thead>
<tr>
<th>Category</th>
<th>1 (Unsatisfactory)</th>
<th>2 (Satisfactory)</th>
<th>3 (Good)</th>
<th>4 (Excellent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization</td>
<td>Any of the following: Little evidence material is locally organized. Paper does not flow, is hard to read. Quotes are relied upon too heavily. No clear introduction is present. The paper does not end with a sense of closure, it appears unfinished.</td>
<td>Paper contains an intro, main body, and conclusion, but may lack some organization locally (within sections). The introduction gives the reader an idea of what to expect in the paper, but does not effectively lay out the main argument. The conclusion does little more than restate the introduction. Intro and/or conclusion may be too wordy or short. The paper does not end with a sense of closure, it appears somewhat unfinished.</td>
<td>Paper contains an intro, main body, and conclusion. The introduction lays out the main argument but gives the reader little idea of what to expect. The conclusion nicely summarizes the main argument and evidence, but does not move beyond what has already been presented in the paper.</td>
<td>Paper contains an intro, main body, and conclusion. Introduction lays out main argument and gives an outline of what the reader can expect in the essay. The conclusion brings everything together, acknowledges potential shortcomings of the paper, and gives the reader a sense of what further work might be done to advance the subject matter described in the paper.</td>
</tr>
<tr>
<td>Evidence</td>
<td>Either no evidence is provided, or there are numerous factual mistakes, omissions or oversimplifications. There is little or no mention of information from lectures and readings.</td>
<td>Not enough evidence is provided to support author’s argument, or evidence is incomplete, incorrect, or oversimplified. Information from lectures and readings is not effectively used.</td>
<td>Provides necessary evidence to convince reader of most aspects of the main argument but not all. The importance/relevance of some evidence presented may not be totally clear. Reader must make a few mental leaps or do some additional research to fully accept all aspects of main argument.</td>
<td>Provides compelling and accurate evidence that convinces reader to accept main argument. The importance/relevance of all pieces of evidence is clearly stated. There are no gaps in reasoning—i.e., the reader does not need to assume anything or do additional research to fully accept main argument.</td>
</tr>
<tr>
<td>Counter-Evidence</td>
<td>No acknowledgement of counter-evidence or alternative interpretations.</td>
<td>Author acknowledges some of the most obvious counter-evidence and alternative explanations, but is not comprehensive in this task. There is little or no attempt made to respond to them.</td>
<td>Author acknowledges that counter-evidence or alternative interpretations exists, and lists them fully, but does not effectively explain to reader why his/her argument still stands.</td>
<td>The author considers the evidence, or alternate interpretations of evidence, that could be used to refute or weaken his/her argument, and thoughtfully responds to it.</td>
</tr>
</tbody>
</table>

1 Acknowledgment: This rubric uses some content adapted from the work of Dr. Aronson, as provided by the Eberly Center for Teaching Excellence, Carnegie Mellon University. [https://www.cmu.edu/teaching/designteach/teach/rubrics.html](https://www.cmu.edu/teaching/designteach/teach/rubrics.html)
<table>
<thead>
<tr>
<th>Formatting</th>
<th>Final paper is not in the correct format</th>
<th>Final paper is double spaced, not more than 3000 words, but word count is not given, 1 inch margins were used</th>
<th>Final paper is double spaced, not more than 3000 words, with word count given, 1 inch margins were used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar</td>
<td>Paper is full of grammatical errors and bad writing. Several words are misused. Technical terms, words from other languages, and words from other historical periods are rarely explained. Not all information is accurate and up-to-date. Paper has not been spell-checked or proofread, and contains numerous errors. Reader has a difficult time understanding essay because of errors.</td>
<td>A few sentences are grammatically incorrect or not clearly written. Several words are misused. Technical terms, words from other languages, and words from other historical periods are rarely explained. Not all information is accurate and up-to-date. Paper has been spell-checked AND proofread, but still contains several errors. Reader’s ability to understand essay may be compromised by these errors.</td>
<td>All sentences are grammatically correct and clearly written. An occasional word is misused or unnecessarily fancy. Technical terms, words from other languages, and words from other historical periods are usually, but not always, explained. All information is accurate and up-to-date. Paper has been spell-checked AND proofread, and contains no more than a few minor errors, which do not adversely affect the reader’s ability to understand the essay.</td>
</tr>
<tr>
<td>Sources</td>
<td>Does not use sources OR only minimal uses source provided by instructor OR relies exclusively on non-scholarly outside sources</td>
<td>Uses only a few of the sources provided in class OR does not go beyond what has been provided by instructor</td>
<td>Evidence is used from many sources, but relies on a limited set OR mostly dependent on class material OR outside resources are mostly non-scholarly</td>
</tr>
<tr>
<td>Citations</td>
<td>Citations were not given.</td>
<td>Citations were not given correctly AND/OR in the format requested (Chicago, Author-date).</td>
<td>Citations were given correctly in the format requested (Chicago, Author-Date).</td>
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</table>

Papers later than 24 hours after the deadline will not be accepted
Reading Summaries

There will be required background reading assigned in Modules 2 and 3 of this course. Completion of the assigned reading will ensure that everyone is prepared for the classroom discussions over each topic. You will be asked to complete six written summaries of the readings assigned.

They will be graded using the following rubric:

<table>
<thead>
<tr>
<th>Category</th>
<th>1 (Unsatisfactory)</th>
<th>2 (Satisfactory)</th>
<th>3 (Good)</th>
<th>4 (Excellent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>Mainly quotes from or relies too heavily on original wording and/or inaccurately represents the author’s argument and/or summary focuses on personal opinion rather than neutrally presenting the text. Demonstrates little to no engagement with the text and/or inaccurate understanding.</td>
<td>Accurately summarizes the main argument in original language though summary may be overly general, vague or overlook key supporting claims. Demonstrates surface level engagement with material and limited, if accurate, understanding.</td>
<td>Accurately summarizes main argument in original language, may overlook one or two key supporting points. Demonstrates engagement with and solid understanding.</td>
<td>Neutrally and accurately synthesizes the main ideas and argument of text, along with key supporting claims, in original language. Demonstrates deep intellectual engagement with and understanding of material.</td>
</tr>
<tr>
<td>Organization</td>
<td>The essay lacks an organizational strategy on both the paragraph and sentence levels.</td>
<td>Includes an introduction and conclusion, yet they may contain ambiguities or irrelevant information and some development may be needed. Body paragraphs include summary and critique, but sequencing of ideas is illogical or hard to follow. Ineffective transitions.</td>
<td>Provides an organizational structure that includes an effective introduction and conclusion. Body paragraphs include well-developed summary and critique with effective topic sentences, sequencing of ideas and transitions, though some development may be needed.</td>
<td>Provides an effective organizational structure that includes sophisticated introductory and conclusion paragraphs. All body paragraphs include well-developed summary and critique with strong topic sentences, effective sequencing of ideas and smooth</td>
</tr>
<tr>
<td>Clarity and Style</td>
<td>Any of the following: Little evidence material is locally organized. Summary does not flow, is hard to read. Quotes are relied upon too heavily. No clear introduction is present. The paper does not end with a sense of closure, it appears unfinished.</td>
<td>Any of the following: Summary lacks some organization, especially locally. The introduction is present but not all that clear. The paper does not end with a sense of closure, it appears somewhat unfinished.</td>
<td>All of the following: Summary is well organized but some work is needed on transitions. A clear introduction is given to the topic. There is a sense of closure at the end of the paper.</td>
<td>All of the following: Summary is well organized. Text flows well with smooth transitions between paragraphs and is easy to follow. A clear introduction is given to the topic. There is a sense of closure at the end of the paper.</td>
</tr>
</tbody>
</table>

Acknowledgment: This rubric uses some content adapted from the work of the FYW Program, Dept. of English, University of West Georgia. https://www.westga.edu/academics/coah/writing/summary_and_response_rubric.php
| Grammar          | Paper is full of grammatical errors. Several words are misused. Technical terms, words from other languages or disciplines are rarely explained. Not all information is accurate. Paper has not been spell-checked or proofread, and contains numerous errors. Reader has a difficult time understanding essay because of errors. | A few sentences are grammatically incorrect or not clearly written. Several words are misused. Technical terms, words from other languages or disciplines are rarely explained. Not all information is accurate. Paper has been spell-checked AND proofread, but still contains several errors. Reader’s ability to understand essay may be compromised by these errors. | All sentences are grammatically correct and clearly written. An occasional word is misused or unnecessarily fancy. Technical terms, words from other languages or disciplines are usually, but not always, explained. All information is accurate. Paper has been spell-checked AND proofread, and contains no more than a few minor errors, which do not adversely affect the reader’s ability to understand the essay. | All sentences are grammatically correct and clearly written. No words are misused or unnecessarily fancy. Technical terms, words from other languages or disciplines are always explained. All information is accurate. Paper has been spell-checked AND proofread (ideally by you and somebody else), and contains no errors. |
| Formatting       | Summary is not in the correct format | | Summary is double spaced, 1 inch margins were used, it is between 2 and 5 pages in length not including citations. | |
| Citations        | Citations were not given. | Citations were not given correctly AND/OR in the format requested (Chicago, Author-date). | Citations were given in the format requested (Chicago, Author-date), with a few minor errors. | Citations were given correctly in the format requested (Chicago, Author-Date). |

Papers later than 24 hours after the deadline will not be accepted
Natural Sciences
The Human Experiences and Endeavors Curriculum

Courses submitted for inclusion in the Natural Sciences Core must already exist or must be approved by the Undergraduate Council.

Course Title: Textile Testing and Analysis
Department and Course Number: Fashion Merchandising FAME40253
Instructor(s): Leslie Browning-Samoni

Please indicate below which Student Action Steps** are appropriate for your course for each Learning Outcome*. Using the bulleted instructions on page 2 of this form, please provide examples that explain how students will, through the use of Student Action Steps, achieve the Learning Outcomes in your course.

**Competency:** TCU graduates will be literate in the natural sciences.

<table>
<thead>
<tr>
<th>Learning Outcomes:</th>
<th>Student Action Steps:</th>
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<tbody>
<tr>
<td>Indicate which are to be used in your course or add others you will use to reach the selected Learning Outcome(s).</td>
<td></td>
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<tr>
<td>Students will demonstrate a basic understanding of some of the methods of investigation in the natural sciences.</td>
<td>Students will explore investigation methodologies and principles through multiple experiences involving laboratory experiments, field studies, or simulations appropriate to the natural science discipline. For each investigation process or principle, students will: determine its purpose, describe it, and compare and contrast it with alternative methodologies. [X] Other:</td>
</tr>
<tr>
<td>Students will demonstrate a basic understanding of some of the great ideas in the natural sciences.</td>
<td>Students will examine some of the major ideas appropriate to the area of study, including how such ideas resulted from a scientifically reasoned investigation. For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles, or theories. [X] Other:</td>
</tr>
<tr>
<td>Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society.</td>
<td>Students will explore the relationships between science, technology, and society appropriate to the natural science discipline. Students will: describe the roles that each plays in the others’ development, and identify the benefits and problems associated with each relationship. [X] Other:</td>
</tr>
</tbody>
</table>

*The Learning Outcomes are statements of what we expect our students to know or be able to do upon completion of a course in that category.*

Rev 2010-09-16
**Student Action Steps** identify the process(es) that will lead to the intended **Learning Outcome**. As such, **Student Action Steps** must specify an action(s) to be taken by a student to fulfill a specific **Learning Outcome** and be reasonable within the context and timeline of the course. The **Student Action Steps** above are provided as examples of how students might achieve the **Learning Outcomes**.

- Please provide examples that explain how students will, through the use of **Student Action Steps**, achieve the **Learning Outcomes** in your course (2 or 3 examples will suffice). To facilitate understanding, please use language accessible both to faculty who might be outside your discipline as well as to students who might see such language in a course syllabus.

**Learning outcome:** Students will demonstrate a basic understanding of some of the methods of investigation in the natural sciences.

1.) Through laboratory testing methods following industry standards set by ASTM and AATCC, students will perform both characterization testing and performance testing. Characterization testing provides students an opportunity to identify fibers, fabric construction methods, as well as, assets such as fabric count and yarn twist direction, all of which contribute to the performance attributes of a fabric and the subsequent products made using it. Performance testing allows the students to evaluate how the fabrics perform in regard to important quality indicators traditionally evaluated by both manufacturers and consumers. These performance indicators include evaluations such as color retention, abrasion resistance, overall fabric strength and individual yarn strength with the fabric structure. The Textile Testing Laboratory in FAB 126A provides industry standard testing equipment for student training and application throughout a variety of labs during the extent of the course.

2.) Students will also conduct a field study where they will wear and evaluate a t-shirt over seven-week period (The Comparison Project). Students are assigned to teams where each student tests a different brand t-shirt. At the end of the testing the results for the different brands are compared in order to evaluate quality in regards to consumer expectations and price points.

   This wear test includes preparing the t-shirt with benchmarks to track changes in measurements in length, width, and skew (fabric distortion or twist) as the t-shirt is refurbished through laboratory standards for washing and drying each week. The refurbishment portion of this field study is conducted in the lab and requires students to precisely weigh the laundry load (1.8 kg +/- 1 kg), and the laundry detergent (66g dry or 100g liquid), as well as record the washing and drying conditions utilized each week. In addition to the physical changes evaluated through benchmark measurements, students will also evaluate changes over time to the aesthetic elements such as color and fit. Color is evaluated using an industry standard color change scale in a lightbox setting so that it may be evaluated for change under different light sources (daylight, incandescent lighting, UV lighting, etc).

3.) All aspects of performance testing are evaluated through multiple test methods to provide students the opportunity explore how different methods are used to evaluate textiles and to understand when one test method may be better suited for a particular sample and end result evaluation (comparing and contrasting with alternate methodologies). For example, colorfastness is tested both through the Comparison Project wear test and through a crock test to evaluate both how color may wash out over time or rub off through abrasion.

**Learning Outcome:** Students will demonstrate a basic understanding of some of the great ideas in the natural sciences.

1.) The development of fibers into fabrics is one of the earliest methods used by humans to adapt materials provided by the natural world into materials that enhanced human well-being. In this course, students will examine how this process is interpreted by humans today in order to develop quality into textile products that are found in the marketplace. This analysis of textile properties epitomizes major ideas in the study of textiles.

2.) Scientific reasoning investigation is the method by which students will examine how the properties of the fibers (natural or man-made) can be influenced by the structure of the fabric and how this can impact various qualities of the end fabric such as color retention, fabric strength, abrasion resistance. The testing techniques utilized in the course follow the testing standards developed by AATCC (American Association of Textile Chemists and Colorists) and ASTM International and which are utilized globally to support quality, safety, and performance. Testing is done on
specialized equipment such as the Martindale Abrasion Tester, the Taber Abraser, the Random Tumble Pill Tester, Crockmeters, and the Instron Universal Testing Machine – a multi-function computerized instrument that is used for tensile and compression testing in our lab, but can be configured to test a variety of materials in a multitude of ways. In addition to testing on specialized industry equipment the students also perform simpler tests, such as, using a magnifying glasses and metal picks to determine the fabric count per inch and the type of twist in the yarns, all of which contribute to the end performance of a textile. These are current examples of the equipment and test methods utilized, but the course is developed to be fluid to adjust to include new test methods that are appropriate to the course and phase out old test methods as necessary due to changes in industry standards over time.

3.) For each concept, principle, or theory, students will: describe it, review its history, determine its importance (including influences on other areas of study), review the evidence supporting it, and compare and contrast it with alternative concepts, principles For example, at the conclusion of the Comparison Project students will record weekly descriptions of the changes occurring to the textile used to create their t-shirt, they will review how the fibers and textile structure of their shirt compares to the traditional knowledge about textile performance and review why their textile is or isn’t an appropriate choice for the product. At the conclusion of the course students will review their individual testing results from both the Piece Goods Project and the Comparison Project as a class to understand how their results compare and contrast with other combinations of fiber and construction techniques. This allows students to consider what fabrics to choose and what testing techniques would be appropriate to propose when developing a children’s clothing line for the final Portfolio Project. Due to the diverse tests available to measure certain textile features the Portfolio Project allows students to utilize their testing experience within the course to compare and contrast testing options in order to choose the most appropriate testing procedure based on the materials, testing equipment availability and end use of the product.

**Learning outcome:** Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society.

1.) Textile manufacturing is the process of turning fibers into fabrics. These fibers may be natural or man-made, and fabrics are created utilizing four main textile structures: woven, knitted, braided or non-woven (where fibers are entangled loosely through a variety of means). This course focuses on the relationship between the fibers and the technological processes of how fibers are transformed into fabrics and the subsequent impact of these materials and processes on the quality of the products made using these fabrics. Fabrics are utilized by society in a variety of ways, including clothing, home goods, products such as upholstery and carpeting that can be used in a variety of spaces including buildings and vehicles, and protective textiles used in medical and first responder gear. Therefore, human existence would be very different without textiles for warmth, comfort, and protection.

2.) Throughout this course students assess how the materials they are examining and testing are evaluated by society in terms of quality and performance based on the user’s end needs. Therefore, students are asked to consider that not all textiles need to perform the same or even similarly, and that the end use is a key factor in determining a fabric’s suitability for a product. For example, lower priced brands typically out perform higher priced brands throughout the variety of performance tests applied each semester. Students are then asked to evaluate why lower priced brands perform better by considering the needs of different social classes typically buying each brand and the concept of planned obsolescence in order to improve consumer demand for new products. This is one example of how products that are appropriate for the final end use are developed by contemplating which fibers and processes to use to make textiles while also considering the costs in both financial and sustainability aspects.

- Please attach a syllabus as the primary supporting document for your course proposal. Syllabi should reflect the Learning Outcomes and the use of the indicated Student Action Steps. They should also indicate how student performance will be evaluated with respect to the outcomes.

Please refer to the attached syllabus sections:

1.) Learning Outcomes for the course (page 3), including the Learning Outcomes designated above for the Natural Science Foundation core.
2.) Assignments (page 6) for details reflecting the *Student Action Steps* that relate to the major course assignments.

3.) Instructional Methods (page 4) and Grading (table on page 8) that details how the *Learning Outcomes* map to the Assignments and how student performance will be evaluated for each.
FAME 40253 Textile Testing & Analysis Syllabus

Instructor Name: Leslie Browning-Samoni
Semester/Year: Spring 2022
Number of Credits: 3
Class Location: TCU Campus FAB 126A
Class Meeting Day(s) & Time(s): M 10:00 AM-11:50AM LCL
W 10:00AM -11:50AM LAB
Office: Fine Arts Building (FAB) 221
Student Hours: Mondays and Wednesdays 9AM-10AM in FAB 126A for lab help or 2:00pm-3:00pm will be held over zoom: https://tcu.zoom.us/j/8674842079
I am available other times, please email to arrange an appointment.
Telephone: 817-257-6324 (office – this will ring on my cell phone)
Email: l.samoni@tcu.edu
Response Time: Please allow 24 hours for me to respond to your email, text, or phone call. Please allow 48 hours for weekends and holidays.

Important Note for the 2021-2022 School Year

Campus Life and the Student Experience

The health and safety of students, faculty, and staff is Texas Christian University’s highest priority. Safety protocols may change during the semester and may result in modifications or changes to the teaching format, delivery method, or the course schedule (e.g., altering meeting times or frequency; changing beginning or ending dates for a term; or partially or completely moving from a face-to-face classroom teaching to an online teaching or remote learning format). Any changes in teaching format, delivery method, or course schedule will not impact the credit hours for the course.

Health and Wellness

*Have you gotten the COVID-19 vaccine? Let TCU know. →
Fill out the vaccine survey by scanning the QR code to the right.

Are you feeling unwell? Let TCU know.

If you are exhibiting symptoms that may be related to COVID-19 (fever or chills, dry cough, shortness of breath, etc.) or are concerned that you may have been exposed to COVID-19, you must self-quarantine and consult with the Brown Lupton Health Center at 817-257-7949 for further guidance.

In addition, you must notify the Campus Life Office immediately at 817-257-7926 or use the TCU COVID-19 Self-Report Hotline, 817-257-2684 (817-257-COVI). Campus Life will inform your professors that you are unable to attend class and provide any assistance and support needed. Click here for detailed information concerning COVID-19 symptoms: https://www.cdc.gov/coronavirus.
If you are unwell but are not exhibiting potential COVID-19-related symptoms, please notify your instructor as soon as possible that you are ill and will not be attending class.

In the event you are mandated to isolate or self-quarantine due to COVID-19, you must present the email you received to the instructor so it can be verified. Once verified, the instructor will provide you with login information and allow you to temporarily join class over Zoom until the isolation/quarantine period has ended. No one will be allowed to join Zoom without proper documentation and verification.

In the event the instructor is mandated to isolate or self-quarantine due to COVID-19, class will either be covered by another faculty member or be moved online (over Zoom) temporarily until the isolation/quarantine period has ended. Class will then resume face-to-face in the classroom.

Face Masks

Face masks are currently required in TCU classrooms, per the TCU Campus Readiness Task Force: Face Mask Policy. Students not complying with classroom face mask requirements may be referred to Dean of Students Mike Russel.

In an effort to maintain a safe environment for everyone, face masks covering the nose and mouth will be required to be worn for the entire semester when attending this class. If you need a mask they are available at the primary entrance of the FAB building. Students who do not comply with mask requirements will be referred to the Dean of Students. Students are also expected to maintain a minimum of 3-foot distance from each other.

Final Exam Date & Other Important Dates

Final Exam. According to the Faculty/Staff Handbook “Final Evaluative Exercise Policy” section, TCU requires a “final evaluative exercise in all classes” during the designated finals period.

Your final Portfolio project will be posted to the Portfolio Showcase Discussion Board by 11:59PM Wednesday, April 27th. You will be responsible for logging into the Discussion board and posting reviews for all student portfolios between 12:00 AM Thursday, April 28 until 11:59P9M Tuesday, May 3rd.

Rescheduling of Finals Policy: [According to the Faculty/Staff Handbook “Rescheduling of Finals”, rescheduling a final arrangement must be made one week prior to the last day of classes. Rescheduling of final examinations is permitted 1) for meeting the 24-hour rule or 2) for graduating seniors whose faculty members must submit final grades by Wednesday 5pm of finals week. Unless the student is graduating, the exam must be taken during final examination week.

Course Description

Emphasis is on testing and analyzing the performance of textile products used in apparel. Identification and quantification of fibers, fabrics, and other component parts of textile products using standard specification and textile testing methods.
Learning Outcomes

As a result of class lectures, in-class activities, industry scenarios, labs, quizzes and exams, students will be able to:

- **Learning Outcome 1** - Identify and explain quality cues in regard to materials, construction, safety, and labeling of apparel products.
- **Learning Outcome 2** – Select appropriate test methods according to material construction method (knit or woven).
- **Learning Outcome 3** - Utilize appropriate testing equipment to perform appropriate textile testing.
- **Learning Outcome 4** - Analyze textile testing results to judge acceptability of test data against standard performance specifications to determine if the product passes or fails quality measures.
- **Learning Outcome 5** - Identify garment construction details, fit, stitch and seam construction, fabric and garment defects, and determine if the overall garment quality is appropriate for the price.
- **Learning Outcome 6** - Students will demonstrate a basic understanding of some of the methods of investigation in the natural sciences.
- **Learning Outcome 7** - Students will demonstrate a basic understanding of some of the relationships among the natural sciences, technology, and society.

- **FAME TAPAC Meta Goals**
- **MG 1b** – Analyze needs and wants of customers.
- **MG 3b** – Evaluate the role of design in quality of life and human well-being.
- **MG 3c** – Evaluate product quality, serviceability, and regulatory compliance standards.
- **MG 5c** – Synthesize existing information to create solutions.
- **MG 6a** – Communicate ideas effectively in written, oral, and visual forms using appropriate tools and terminology.
- **MG 6d** – Demonstrate ability to critique self and others constructively.
- **MG 6f** – Demonstrate ethical behavior and decision making.

Prerequisites / Program or Major Connections

Prerequisites: Merchandising major; a 'C' or better in FAME 30263 Product Development. In this course you will build upon the knowledge and skills you have learned in:

- **FAME 30263** – The Textile Testing and Analysis course builds upon the principles and practices explored in the FAME 30263 Product Development course. Textile Testing and Analysis will delve deeper into the process of product development, focusing on the role of quality. In this course we will evaluate knit and woven products through a series of labs, evaluating quality in comparison to competing products, consumer needs and wants, and federal regulations. You will find that the final portfolio project is very similar to the project you created in Product Development. This is to allow you to apply the knowledge you have gained from both classes to create a new garment line based on certain specifications, as is often the case in industry.
Required Texts / Materials


- Lab Manual, Provided by the instructor through TCU online.

- Additional reading assignments for class will be uploaded to TCU Online.

Supplies:

- Each project will have a list of supplies that are needed to complete the project – these will be discussed in class and posted on TCU online for your reference. If you need financial assistance to purchase supplies please see me – there are limited scholarships available to help.

Below are some general supplies that you will also need:

- You should have the following items from when you took FAME 20273 Apparel Construction:
  - Fabric Scissors
  - Paper Scissors
  - Clear Plastic “Quilting” Ruler

- If/when you access TCU online:
  - High speed internet connection
  - Computer

Additional / Supplementary Resources

Supplemental Optional Resources for Strengthening Textile Knowledge, Fabric Selection, and Application:


Additional Resources for Trend Forecasting, Gathering Images for Concept Pages, and Critique Signups:

www.WGSN.com (TCU library access), WWD, Pinterest, Google images, gettyimages.com and imagebank.com, stockimages.com (use public domain images or cite sources), and a variety of fabric print books and inspirational motif sources. Signupgenius.com will be used for individual desk critique signups.
Teaching Philosophy

My role in the classroom is as a guide in a student's educational journey. By employing a multitude of approaches and differentiating my delivery of instruction, I feel that I am able to make my classroom a collaborative, inclusive, and welcoming environment that provides students with diverse perspectives on the subject at hand. Utilizing my personal experiences from over twenty years in the fashion industry, I advise and inspire my students. Beyond pulling from my own experience, I believe a student learns best when they are able to understand and explore concepts in the context of their own life. I often ask students to provide personal examples that relate to the course material. I challenge students to explore beyond their current knowledge through active research. I dare the student to not just learn from the internet or books, but to also discuss ideas with peers and colleagues. I encourage students to prototype ideas and to seek out a potential consumer for feedback. I believe that by offering a student an opportunity to see ideas through the eyes of others, and to learn through empathy, the learning experience becomes more memorable and powerful than what can be learned by simply reading and reiterating the ideas presented. I believe that exposure to the perspectives of others fosters communication, an essential skill for thinking and acting as ethical leaders and responsible citizens in the global community.

My role is to help students navigate these new ideas, the feedback, and their experiences. I assist each student in understanding the connections between concepts and actions. I work to encourage each student to help others. I urge students to continue the discourse from class once they leave. Finally, I expect them to reach beyond the industry status quo by continuing to work together to build new models for the future.

Instructional Methods

I will incorporate several instructional methods into this course such as demonstrations, lectures, readings, quizzes, a self-assessment, hands-on lab activities, a portfolio project, and portfolio showcase discussion. I believe that hands-on application of the information you are learning is vital to success. It is this assimilation of information that showcases learning as it will be applied in the industry you will enter after graduation. Demonstrations and assignments will provide the foundation and knowledge necessary to apply it through the development of tangible products. Upon conclusion of this course you will have created a body of work to showcase your understanding of the product development process and how to assess and ensure quality throughout this process. You will have evidence of the application of skills you have acquired through a portfolio of a product line developed by utilizing your knowledge of textiles, elements of apparel quality and how to assess this using industry methods and standards, and an understanding of consumer needs in the development of appropriately priced goods.

Course Policies and Requirements

Syllabus Acknowledgement

Syllabus acknowledgement form should be submitted to the assignment submission folder in TCU Online (http://d2l.tcu.edu) no later than Friday January 14, 2022 at 11:59 pm (Central Standard Time). Please include an image of a dinosaur with your syllabus acknowledgement form when posting to TCU online. Return of this acknowledgement with the dinosaur image by
the stated time frame will result in a 1-point bonus addition to your overall point value for the course.

Assignments

Lab assignments are a great way for you to practice and apply what you are learning in class. We will complete labs related to each unit we will cover. Some labs will continue for several weeks in order to collect information over a period of time to then evaluate and discuss in class.

The labs fall into 3 categories:
1.) General lab assignments which allow you to explore concepts before applying the concepts to the longer projects.

2.) The Piece Goods Project labs are team based and will explore a woven fabric over several lab activities. Each lab team will choose and provide 2 yards of a woven fabric so that we have a variety of fabrics to compare. The first series of lab activities consists of performing characterization testing to determine the fibers, yarn and fabric construction, and finishing techniques for your chosen woven fabric. The second series of testing will analyze the performance characteristics of your fabric. We will then consider how the attributes form the characterization testing influenced the performance outcomes of the different fabrics tested by each team. Based on this analysis we will also consider the appropriate end uses for each of the fabrics tested.

3.) The Comparison Project labs are also a team based and will explore knitted t-shirts through a comparison of competing and/or aspirational brands. Each student will track the fit and comfort of your shirt through a wear test over several weeks. Each student will also create and measure benchmarks on their t-shirt which will then be measured each week after a lab-controlled laundering to track changes in length, width, and skew. As with the Piece Goods Project we will perform characterization and performance testing on the t-shirts to evaluate how the fabric and construction details influence the performance outcomes of your chosen shirt.

All characterization, performance, and wear testing labs follow standards provided by AATCC and ASTM, – these standards books are available in FAB126A for your reference.

Grading of labs is based on on-time submission and completion of all portions. If you submit the assignment on time and it is complete you earn the designated points. If your assignment is late and/or incomplete you will earn zero points. Completing lab assignments provides an easy way to earn points while building and strengthening your skills.

It is important for you to explore your analysis skills and your ability to convey information in this course. All work completed for the labs must be your own assessment and evaluations, and new this semester. Should you decide to turn in work previously completed/submitted from a past semester’s assignment during the course of this semester zero points will be awarded for the assignment. I want you to be successful in this course so please don’t do this.

Quizzes

There will be 11 quizzes given during the semester that will be administered through TCU Online. The quizzes are based on the reading and discussion materials found in the textbook.
and on TCU Online. These provide a way to evaluate each student’s understanding of the course materials throughout the semester.

Quizzes can be accessed by clicking on the Activities Tab in TCU Online, select Quizzes, then select the specific quiz for the designated day. The tentative dates for quizzes are indicated on the course outline and on the Calendar in TCU Online. Once you enter the quiz you will have 15 minutes to complete it with a 1-minute grace period. Quizzes will open on the designated day at 12:00am (CST) and close at 11:59pm (CST) the same day. This will allow 24 hours for students to enter and complete the 15-minute quiz. Only one quiz attempt is allowed. Completed quizzes will be accessible in TCU Online upon completion. Please note, your grade will not be finalized until I review and manually score each quiz. Quizzes will cover class lectures/demonstrations, discussions, readings from the textbook, and assignments. I understand this may be the first time you have had me as a professor, and it can be hard to know what to expect on the first quiz or you may be having an off day. Please know I drop the lowest quiz grade.

Missed quizzes cannot be made up unless documentation for an "Official" University absence is provided. Please notify me prior to or on the day the quiz/evaluation is given. Once I receive confirmation from Campus life that documentation has been provided I will work with you to determine an appropriate deadline for making up the work. If you miss a quiz for reasons other than an “Official University absence” (see Attendance Policy) a grade of zero will be recorded. Remember, I do drop the lowest quiz grade.

Portfolio

The Portfolio project is your opportunity to explore your creativity and exhibit your knowledge regarding textiles and construction in the role of product development. In addition to making choices in the development of your product line, you will also demonstrate your knowledge of apparel quality cues and practices to select appropriate tests and standards for the evaluation of your product. Additional time outside of class is required to complete this project. The amount of time required outside of class will depend upon your utilization of in-class time, technical ability, and skill level. Grading of the Portfolio is based on ability to follow directions, neatness and craftsmanship, creativity and originality, technical execution, layout design, design concept and inspiration, accuracy, proportion, symmetry, complexity and detail of flat sketches, coordination and cohesiveness of the collection, accuracy of forecasting, presentation and organization, and appropriateness of selected textile tests and standards for evaluating your product and the materials used in the line. You can access the Portfolio grade rubric in TCU Online in the Portfolio module.

All portfolio work completed must be your original designs and new this semester. Should you decide to turn in work previously completed/submitted from a current assignment or past semester’s assignment or portfolio during the course of this semester, zero points will be awarded for that portion of the portfolio. I want you to be successful in this course so please don’t do this.

Portfolio Showcase

For the Portfolio Showcase, everyone will post their portfolio to the Portfolio Showcase Discussion. This will provide everyone with the opportunity to share the work they have created this semester. Students are expected to post their portfolios to the Portfolio Showcase discussion before the deadline (see course outline for due date/time). During the Portfolio
Showcase Review period (TBD once the final exam schedule is released), each peer portfolio should be viewed, and constructive feedback/comments posted. Comments should be specific to each individual’s work. You can access the Portfolio Showcase discussion grade rubric in TCU Online in the Portfolio Showcase module.

Grading

Final Grade Elements / Grade Breakdown:

<table>
<thead>
<tr>
<th>Outcome(s) &amp; FAME TAPAC Meta Goal(s)</th>
<th>Assignments, Quizzes, Projects, Discussions etc.</th>
<th>Percentage</th>
<th># of Instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO1, LO2, LO5, LO6 MG1b MG3b, c MG6a, f</td>
<td>General Labs</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>LO1, LO2, LO3, LO4, LO6, LO7 MG1b MG3b MG6a</td>
<td>Piece Goods Labs</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>LO1, LO2, LO3, LO4, LO5, LO6, LO7 MG1b MG3b, c MG6f</td>
<td>Comparison Project Labs</td>
<td>30</td>
<td>17</td>
</tr>
<tr>
<td>LO1</td>
<td>Quizzes 1-11 (10pts each – lowest one dropped)</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>LO1, LO2, LO5, LO6, LO7 MG1b MG3b, c MG5c MG6a, d, f</td>
<td>Portfolio</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>
Grading Scales

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<tr>
<th>Grade</th>
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<th>Score</th>
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<tbody>
<tr>
<td>A</td>
<td>94–100</td>
<td>C</td>
<td>74–76.99</td>
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<tr>
<td>A-</td>
<td>90–93.99</td>
<td>C-</td>
<td>70–73.99</td>
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<tr>
<td>B+</td>
<td>87–89.99</td>
<td>D+</td>
<td>67–69.99</td>
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<td>60–63.99</td>
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<td>C+</td>
<td>77–79.99</td>
<td>F</td>
<td>0–59.99</td>
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Course grades are determined based on a weighted grade system which can be viewed in TCU online. Grades are weighted as entered and the total grade is an accurate reflection of the student’s progress throughout the course.

Grades will not be rounded during the course of the semester. Please refer to the scale above for final grade calculations – this scale is determined by the University and is not negotiable.

Late Work
The fashion industry is fast paced, and timing is critical. Meeting deadlines is an important aspect of preparing for a career in this industry. On-time submission of work is expected in this course. Late work will not be accepted. Only on-time submissions will be graded. Zero points will be awarded for late or missing assignments and projects.

Lab assignments and the Portfolio project should be submitted to the designated Assignment folder in TCU Online prior to the start of class the day it is due (no later than 9:30am CST when the submission folder will close). Late work will not be accepted, and you will receive zero points for the assignment or project so please make sure you submit before the folder closes.

Incomplete Work
Due to the fast-paced nature of the fashion industry, on time submission and completed work is vital to your success. It is important to build this skill now and manage your time well. Zero points will be awarded for incomplete assignments. All portions of assignments must be completed in order to gain credit so carefully double check your assignments prior to submission to ensure they are complete. Partial credit will not be given for incomplete assignments.

Please make sure your files can be opened prior to turning in each assignment. I cannot open files created on Apple products (ex. pages), please submit file formats that may be accessed by android or Windows based platforms. Zero points will be awarded for an assignment where files cannot be opened.

Managing your time is important for completion of the portfolio. Students will often submit their portfolios prior to the due date/time.
**Teamwork and Peer Evaluation**
You will be working in teams to complete lab assignments this semester. You will be given the opportunity to give feedback on your peer’s participation and quality of work periodically. Please be fair, if there is an issue with a peer’s participation, please notify me as soon as possible so that I may work with the team and individual to find a solution before the issue blows up.

**Grading Concerns**
Should you have a question regarding a grade you received, email me within 24 hours of the grade posting and state what question(s) you have and which grade item you are referring to. Be as specific as you can in your correspondence. Please allow 24 hours for me to respond to your inquiry.

**Participation / Engagement (Attendance)**
A minimum of 1-6 hours of work outside of class each week is expected. Some assignments/projects will require more time and some less (depending on your technical ability and skill). Manage time wisely and plan workload accordingly.

You are expected to be fully prepared with the necessary supplies and materials needed for each class period.

You are expected to utilize in-class time wisely. When you are focused in class and use your time wisely it will reduce the amount of out of class time needed to complete work.

Class time is to be used for current Textile Testing and Analysis assignments/projects only. Students are required to work in class and utilize time wisely. *If you are working on anything other than Textile Testing and Analysis coursework during the scheduled class time I reserve the right to kindly ask you to leave and an absence will be recorded for the class period.*

All athletes are required to submit a written schedule, including travel dates, to the instructor during the first two weeks of class. This will allow us to coordinate what class sessions you will be missing.

If it becomes necessary for the class to be held over Zoom, if possible, please use your camera so we can see each other. This is important for interaction, engagement and helps signal understanding or if a concept needs to be further explained or demonstrated again.

**Attendance Policy**
As with a job, the basic expectation is that you will be on time, participate, and remain engaged for the entire class period. Attendance will be taken at the beginning of each class period.

Should you arrive late to class and miss roll, it is your responsibility to see the instructor before the end of the class session to gain credit for attendance. If you fail to notify the professor before leaving class that day, regarding your late arrival, an absence will remain in the attendance log. No exceptions.

A total of two unexcused absences are allowed in this class. *Three percent (3%) will be deducted from the class cumulative point total for each additional.*
The following examples are recognized by the University as legitimate reasons for "Official" absence and will only be accepted with proper written documentation from TCU Campus Life: Serious illness (hospitalization or quarantined by the University), death in the immediate family, catastrophic accident, academic fieldtrips, and participation in an approved concert, athletic event, or state meetings of organizations represented at TCU.

If you have an “official” absence due to one of the above reasons you must provide documentation to TCU Campus Life in a timely manner. Only “Official” university absences will be accepted. No exceptions will be made.

Students should use the two allowed absences for reasons other than “Official” university absences (i.e. illness, car trouble, etc.). Please do not schedule doctor’s appointments, interviews, work, flights, vacations, etc. during class time (these are not considered excused absences). Note: The TCU Health Center does not provide documentation to excuse an absence from class-unless you have been quarantined.

You can check attendance at any time in TCU Online. Go to People and select Attendance.

Lectures and demonstrations will not be repeated. You are responsible for all material covered during any class session missed, regardless of the reason for absence. Class attendance has direct bearing on your grade due to lab instruction, demonstration, and participation.

Late Arrivals

Four late (4) arrivals and/or early departures equal one absence. If you miss 30 minutes or more of a class period, the instructor reserves the right to record and absence for you.

Class Norms & Netiquette

All members of the class are expected to follow rules of common courtesy in all email messages, discussions, and chats. If I deem any of them to be inappropriate or offensive, I will forward the message to the Chair of the department and appropriate action will be taken, not excluding expulsion from the course. The same rules apply online as they do in person. Be respectful of other students. Foul discourse will not be tolerated. Please take a moment and read some basic information about netiquette (http://www.albion.com/netiquette/).

Participating in the virtual realm, including social media sites and shared-access sites sometimes used for educational collaborations, should be done with honor and integrity. Please review TCU’s guidelines on electronic communications (email, text messages, social networks, etc.) from the Student Handbook. (https://tcu.codes/policies/network-and-computing-policy/email-electronic-communications-social-networks/)

Technology Policies

Email

Only the official TCU student email address will be used for all course notification. It is your responsibility to check your TCU email on a regular basis.
Course Materials
TCU students are prohibited from sharing any portion of course materials (including videos, PowerPoint slides, assignments, or notes) with others, including on social media, without written permission by the course instructor. Accessing, copying, transporting (to another person or location), modifying, or destroying programs, records, or data belonging to TCU or another user without authorization, whether such data is in transit or storage, is prohibited. The full policy can be found at: https://security.tcu.edu/policy-usage-policy/.

Violating this policy is considered a violation of Section 3.2.15 of the Student Code of Conduct (this policy may be found in the Student Handbook at https://tcu.codes/code/index/), and may also constitute Academic Misconduct or Disruptive Classroom Behavior (these policies may be found in the undergraduate catalog at https://tcu.smartcatalogiq.com/current/Undergraduate-Catalog/Student-Policies/Academic-Conduct-Policy-Details). TCU encourages student debate and discourse; accordingly, TCU generally interprets and applies its policies, including the policies referenced above, consistent with the values of free expression and First Amendment principles.

Academic Misconduct
Academic Misconduct (Sec. 3.4 from the TCU Code of Student Conduct): Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Office of Campus Life and are also listed in detail in the Undergraduate Catalog and the Graduate Catalog. Specific examples include, but are not limited to:

- **Cheating:** Copying from another student's test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.

- **Plagiarism:** The appropriation, theft, purchase or obtaining by any means another's work, and the unacknowledged submission or incorporation of that work as one's own offered for credit. Appropriation includes the quoting or paraphrasing of another's work without giving credit therefore. [If you are using Turnitin, place information about your course ID/password or state that items will be checked as part of the TCU Online assignment submission process. If you want to use Turnitin as a spot check, indicate that you may use Turnitin for plagiarism detection.]

- **Collusion:** The unauthorized collaboration with another in preparing work offered for credit.

- **Abuse of resource materials:** Mutilating, destroying, concealing, or stealing such material.

- **Computer misuse:** Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs, terminals, or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.

- **Fabrication and falsification:** Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.
• **Multiple submission:** The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.

• **Complicity in academic misconduct:** Helping another to commit an act of academic misconduct.

• **Bearing false witness:** Knowingly and falsely accusing another student of academic misconduct.

**Textile Testing and Analysis Course-Specific Conduct**

• All work you create in this course must be your own original designs. Tracing other people’s designs, public domain images, flats from WGSN, and so on is considered plagiarism and will not be permitted.

• Previous work completed on your own, for other classes, or previous work completed in this course during an earlier semester cannot be submitted for credit and zero points will be awarded for the assignment or portfolio. All work must be current to this semester.

• For Concept pages, you have the option to use public domain images, purchase the rights to use images and/or properly cite images using APA format which can be found in the Content area of TCU Online in the Start Here – Important Course Information then select the APA Format Module, or go to the Portfolio module.

**TCU Online: Our Learning Management System**

**Getting Started with TCU Online**

**Technical Requirements:** Check your computer is ready by looking at the specifications list. ([https://community.brightspace.com/s/article/Brightspace-Platform-Requirements](https://community.brightspace.com/s/article/Brightspace-Platform-Requirements))

**Log In:** (using your TCU Network Credentials)

1. Access via [my.tcu.edu](http://my.tcu.edu) > Student Quick Links > TCU Online
2. Login at the following website ([http://d2l.tcu.edu](http://d2l.tcu.edu) my.tcu.edu)

*For information about logging into TCU Online, view these instructions. ([http://tcuonline.tcu.edu/kb/how-do-i-log-in/](http://tcuonline.tcu.edu/kb/how-do-i-log-in/)).

**Student Orientation Tutorial for TCU Online:** If you have not yet taken the TCU Online Student Orientation Tutorial, please do so now. To access it, click on the Orientations semester OR view all courses in your My Courses widget visible upon logging in to TCU Online. Click on the "Student Orientation Tutorial" to enter the orientation course. Follow the instructions in the course. You can return to this tutorial at any time.

**How This Course Will Use TCU Online**

There are a lot of course materials in TCU Online. In the Content area you will find all of the course materials such as the syllabus with the daily class schedule, assignments, lectures, quizzes, peer evaluations, project, and discussion, and rubrics. APA guidelines for citation, directions for WGSN access videos, and links to important content. We will have one online discussion that will take place in TCU Online. All quizzes will be administered through TCU Online. Attendance is recorded in the course shell and can be viewed at any time.
Assignments/Projects will be submitted to the course shell and all grades will be entered into the gradebook in TCU Online.

Getting Help with TCU Online
If you experience any technical problems while using TCU Online, please do not hesitate to contact the D2L HELP DESK. They can be reached by phone or chat 24 hours a day, 7 days a week, 365 days a year.

Phone: 1-877-325-7778
Chat: Chat is available within TCU Online in the Help menu on the navigation bar.

If you are working with the helpdesk to resolve a technical issue, make sure to keep me updated on the troubleshooting progress.

If you have a course-related issue (course content, assignment troubles, quiz difficulties) please contact me.

Personal Settings & Notifications for TCU Online
As a student, you should set up your account settings, profile, and notifications. To do this you will login to TCU Online and select your name on the top right of the screen. You can upload a photo of yourself and add personal information to your profile. In the notifications area, you can add your phone number to receive text messages when grades are given, as well as reminder texts for upcoming assignments and quizzes.

Student Success Tools for TCU Online

Pulse
Pulse is a phone app which gives you access to the course calendar, assignments, grades, and announcements. This app provides a graph that can help you manage your time. Based on the number of assignments and events on the course calendar for your classes, the graph will display busy times for class work in the upcoming week. You can use this app to manage your daily workload, and it includes the ability to view and access course materials offline. You can download Pulse from the Google Play or Apple Store. You can learn more and download Pulse here: https://www.d2l.com/products/pulse/.

ReadSpeaker
ReadSpeaker includes a number of tools that can enhance your understanding and comprehension of course materials. ReadSpeaker can create an audio version of content that you can listen to while on a page within a course or that you can download to listen offline. ReadSpeaker can also read Microsoft Office files and PDFs. There are additional tools and features to assist you with reading and focusing in TCU Online, tools that provide support for writing and proofing text, and tools that can read non-TCU Online content aloud. You can learn more about how to use ReadSpeaker tools here: https://tcuonline.tcu.edu/how-to-hub/instructor-how-to-hub-for-tcu-online/integrations-and-mobile/readspeaker/
Support for TCU Students

Campus Offices

- Academic Advising (817-257-7486, Jarvis 104)
- Brown-Lupton Health Center (817-257-7938 or 817-257-7940)
- Center for Digital Expression (CDeX) (cdex@tcu.edu, Scharbauer 2003)
- Center for Writing (817-257-7221, Reed Hall 419)
- Counseling & Mental Health Center (817-257-7863, Jarvis Hall 2nd floor)
- Dean of Students (817-257-7926, the Harrison 1600)
- Mary Couts Burnett Library: Reference Desk (817-257-7117)
- Office of Religious & Spiritual Life (817-257-7830, Jarvis Hall 1st floor)
- Student Access & Accommodations (817-257-6567, The Harrison 1200)
- Student Success (817-257-8345, Samuelson Hall, West Entrance)
- Substance Use and Recovery Services (817-257-7100, Jarvis Hall 2nd floor)
- Transfer Student Center (817-257-8345, Samuelson Hall, West Entrance)
- Veterans Services (817-257-5551, Jarvis Hall 2nd floor)

Anti-Discrimination and Title IX Information

Statement on TCU’s Non-Discrimination Policy

TCU is committed to providing a positive learning, living, and working environment free from unlawful discrimination, harassment, sexual misconduct, and retaliation. In support of this commitment, in its policy on Prohibited Discrimination, harassment, sexual misconduct and retaliation, TCU has a range of prohibited behaviors, including unlawful discrimination and harassment and related sexual and other misconduct based on age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, predisposing genetic information, covered veteran status, and any other basis protected by law. The Office of Institutional Equity (OIE) is responsible for responding to all reports of discrimination, harassment, sexual misconduct and retaliation.

Please use the following links to review TCU Policy 1.008 Prohibited Discrimination, Harassment, Sexual Misconduct and Retaliation or to review TCU Policy 1.009 Responding to Reports of Prohibited Discrimination, Harassment, Sexual Misconduct, and Retaliation.

To make a report, you may call OIE at 817-257-8228, email oie@tcu.edu, visit us at The Harrison, Suite 1800 or click here: Make a Report.

To learn about the Campus Community Response Team (CCRT) and Report a Bias Incident click here: https://inclusion.tcu.edu/campus-community-response-team/

Title IX

TCU’s Title IX Coordinator works within OIE. Andrea Vircks-McDew serves as TCU’s Title IX Coordinator. You may call 817-257-8228 to make a report, email oie@tcu.edu or
a.vircks@tcu.edu, or make a report here. Additional Title IX resources and information are available at https://www.tcu.edu/institutional-equity/title-ix/index.php.

**Mandatory Reporters**
ALL TCU employees, except confidential resources, are considered Mandatory Reporters. Mandatory reporters are required to immediately report to OIE any conduct that raises Discrimination, Harassment, Sexual Misconduct (Title IX or Violence Against Women (VAWA)) or Retaliation. Mandatory reporters cannot promise to refrain from forwarding the information to OIE.

**Confidential On-Campus Resources**
Campus Advocacy, Resources & Education
www.care.tcu.edu | 817-257-5225

Counseling & Mental Health Center
www.counseling.tcu.edu | 817-257-7863

Religious & Spiritual Life
www.faith.tcu.edu | 817-257-7830

**On Campus Resources**
TCU Police
www.police.tcu.edu | 817-257-8400 Non-emergency | 817-257-7777 Emergency

**TCU Policy for Religious Observations & Holidays**
“Students who are unable to participate in a class, in any related assignment or in a university required activity because of the religious observance of a holy day shall be provided with a reasonable opportunity to make up the examination or assignment, without penalty, provided that it does not create an unreasonable burden on the University.” For more information, please visit the TCU Policy for Religious Observations & Holidays webpage.

**Student Access and Accommodation**
Texas Christian University affords students with disabilities reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. To be eligible for disability-related academic accommodations, students are required to register with the TCU Office of Student Access and Accommodation and have their requested accommodations evaluated. If approved for accommodations, students are required to discuss their official TCU Notification of Accommodation with their instructors. Accommodations are not retroactive and require advance notice to implement. The Office of Student Access and Accommodation is located in The Harrison, Suite 1200. More information on how to apply for accommodations can be found at https://www.tcu.edu/access-accommodation/ or by calling Student Access and Accommodation at (817) 257-6567.

**Audio Recording Notification:**
Audio recordings of class lectures may be permitted by the instructor or as an approved disability accommodation through Student Access and Accommodation. Recordings are not to be shared with other students, posted to any online forum, or otherwise disseminated.
Emergency Response Information

Please review TCU’s L.E.S.S. is More public safety video to learn about Lockdown, Evacuate, and Seek Shelter procedures. (https://publicsafety.tcu.edu/less-is-more/)

TCU’s Public Safety website provides maps that show our building’s rally point for evacuation and the seek shelter location. (https://publicsafety.tcu.edu/)
In the event of an emergency, call the TCU Police Department at 817-257-7777.

Download the Frogshield Campus Safety App on your phone. (https://police.tcu.edu/frogshield/).
Course Schedule

This calendar represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunities. Such changes will be clearly communicated.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Learning Activity</th>
<th>Preparation/Assigned Content for Next Class</th>
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</thead>
<tbody>
<tr>
<td>Week 1 January 10 – January 16</td>
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<tr>
<td>Jan. 10 Mon.</td>
<td>Introduction to Course</td>
<td>Course Overview &amp; The Importance of Textile Testing and Analysis</td>
<td>Purchase supplies. Syllabus Acknowledgement (Go to Course Overview &amp; Setup, Syllabus acknowledgement). Due to Assignment folder by 5pm (CST) Thurs. Aug. 20</td>
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<td>• Review Supply List</td>
<td>Signup to access WGSN or reactivate access. The instructions are located in the Course Overview &amp; Setup module.</td>
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<td>• Formation of <strong>Lab Groups</strong> (4 to 5 people) and <strong>Small Teams</strong> for Activities (2 to 3 people)</td>
<td>Read Chapter 1 in <em>Apparel Quality &amp; Additional Resources on TCU online</em></td>
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<td>• Develop Team Charter</td>
<td>Read <em>Lab Manual</em>: labs 1.1 – 1.4 - See lab manual for preparation and supplies needed for labs</td>
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<td>• Consumer Wants and Needs “Pre-test” due by 11:59 PM August 26.</td>
<td>Jeans for Labs 1.1 &amp; 1.2 <strong>Coordinate price categories beforehand</strong></td>
</tr>
<tr>
<td>Jan. 12 Wed.</td>
<td>Overview of Apparel Quality and the Consumer (Ch.1)</td>
<td>Apparel Quality and the Consumer (Ch.1)</td>
<td>Read Chapter 2 in <em>Apparel Quality</em></td>
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<td>Define terms – Google Doc group activity</td>
<td>Read <em>Lab Manual</em>: labs 2.1 – 2.3- See lab manual for preparation and supplies needed for labs</td>
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<td>Discuss Consumer expectations</td>
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<td>• Start Lab Activities 1.1-1.4</td>
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<td>Date</td>
<td>Topic</td>
<td>Learning Activity</td>
<td>Preparation/Assigned Content for Next Class</td>
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<td><strong>Week 2 January 17 – January 23</strong></td>
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<tr>
<td>Jan. 17 Mon.</td>
<td>No Class Session</td>
<td>MLK Holiday</td>
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<tr>
<td>Jan 19 Wed.</td>
<td>Integrating Quality into the Development of Apparel Products (Ch.2)</td>
<td>Discussion (Ch.2)- Integrating Quality into the Development of Apparel Products</td>
<td>Read Chapter 3 in Apparel Quality</td>
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<td>Complete Lab Activities 1.1 – 1.4</td>
<td>Read Lab Manual: labs 3.1 – 3.5</td>
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<td>Begin Lab Activities 2.1-2.3</td>
<td>Comparison garments for lab 2.2 ** May do lab later if you do not have garments next class**</td>
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<td><strong>Quiz Chapter 1 available on D2L</strong></td>
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<td><em>(opens in TCU Online at 12:00am and will close at 11:59pm CST)</em></td>
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<td><strong>Week 3 January 24 – January 30</strong></td>
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<td>Jan, 24 Mon.</td>
<td>Raw Materials Selection and Performance</td>
<td>Discussion (Ch.3) - Raw Materials Selection and Performance</td>
<td>See TCU Online for readings and additional resources.</td>
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<td>Overview of Standards Scale available in our lab</td>
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<td>• Continue Lab Activities 2.1-2.3</td>
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<td>(Lab 2.3 is Online – may be done as homework)</td>
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<td><strong>Quiz Chapter 2 available on D2L</strong></td>
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<td><em>(opens in TCU Online at 12:00am and will close at 11:59pm CST)</em></td>
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<tr>
<td>Jan 26 Wed.</td>
<td>Textile Properties That Influence Performance</td>
<td>Discussion – Textile Properties That Influence Performance</td>
<td>Read Chapter 11 in Apparel Quality</td>
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<td></td>
<td>• Begin Lab Activities 3.1</td>
<td>2 Yards of Woven Fabric in Medium to dark color for lab 3.2 &amp; 3.3 for Piece Goods Project</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Learning Activity</td>
<td>Preparation/Assigned Content for Next Class</td>
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<td><strong>Labs 1.1 &amp; 1.2 Due</strong> to folder in TCU Online no later than 11:59PM (CST) Sept. 9.</td>
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<tr>
<td><strong>Week 4 January 31 – February 6</strong></td>
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<tr>
<td>Jan. 31</td>
<td>Measuring Product Quality Through Testing</td>
<td>Discussion (Ch. 11) - Measuring Product Quality Through Testing</td>
<td>See TCU Online for readings and additional resources.</td>
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<tr>
<td>Mon.</td>
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<td>Continue Lab Activity 3.1, Begin Lab Activity 3.2</td>
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<td><strong>Quiz Chapter 3 available on D2L</strong> <em>(opens in TCU Online at 12:00am and will close at 11:59pm CST)</em></td>
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<td>See TCU Online for readings and additional resources.</td>
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<td>2 Yards of Woven Fabric in Medium to dark color for lab 3.2 &amp; 3.3 for Piece Goods Project</td>
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<td><strong>Lab 1.3, 1.4 Due</strong> to folder in TCU Online no later than 11:59PM (CST) Sept. 16</td>
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<tr>
<td>Feb. 2</td>
<td>Preparations for Wear Testing</td>
<td>Bring your t-shirt, a sharpie or fabric pen, and your clear ruler</td>
<td>See D2L for additional resources.</td>
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<tr>
<td>Wed.</td>
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<td><strong>2.3 Due</strong> to folder in TCU Online no later than 11:59PM (CST) Sept. 21</td>
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<td><strong>Week 5 February 7 – February 13</strong></td>
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<td>Feb. 7</td>
<td>Accurate Measurements and Handling Data</td>
<td>Discussion – Accurate Measurements and Handling Data</td>
<td>See TCU Online for readings and additional resources.</td>
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<tr>
<td>Mon.</td>
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<td>*Continue Lab Activities 3.1 &amp; 3.2</td>
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<td></td>
<td>Begin Lab Activity 3.3</td>
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<td><strong>Quiz Chapter 11 available on D2L</strong> <em>(opens in TCU Online at 12:00am and will close at 11:59pm CST)</em></td>
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<td>Lab 3.2 Due by end of class today!</td>
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<td></td>
<td>2 Yards of Woven Fabric in Medium to dark color for lab 3.2 &amp; 3.3 for Piece Goods Project</td>
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<td></td>
<td><strong>Comparison garments for lab 3.4 &amp; 3.5</strong></td>
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<td>Date</td>
<td>Topic</td>
<td>Learning Activity</td>
<td>Preparation/Assigned Content for Next Class</td>
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<tr>
<td>Feb. 9</td>
<td>Environmental Conditions and Testing, Appearance Retention, Preparations for Wear Testing</td>
<td>Discussion Environmental Conditions and Testing Appearance Retention: Wrinkle and Soil Resistance and Color Fastness ** Begin Comparison Garment Wear Test (Lab 3.5)** - Evaluate color for Lab 4.3 before washing!! Lab Activities 3.5 and 4.3 (wear testing)– this will be ongoing both in and out of class.</td>
<td>Lab 2.1 &amp; 2.2 Due to folder in TCU Online no later than 11:59PM (CST) Sept. 23. Read Chapter 12 in Apparel Quality Comparison garments for lab 3.4 &amp; 3.5 Lab 1.3 &amp; 1.4 Due to folder in TCU Online no later than 11:59PM (CST) Feb 18.</td>
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<td>Week 6 February 14 – February 20</td>
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<tr>
<td>Feb 14. Mon.</td>
<td>Raw Materials and Sewn Products Testing</td>
<td>Discussion (Ch. 12) - Raw Materials and Sewn Products Testing Continue Labs 3.1, 3.2, 3.3 Lab Activities 3.5 and 4.3 (wear testing)– this will be ongoing both in and out of class.</td>
<td>Read Chapter 4 in Apparel Quality Read Lab Manual: labs 4.1 – 4.3 Woven Shirt from Lab 2.1 for lab 4.1 Comparison garments for lab 3.5, &amp; 4.3.</td>
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<tr>
<td>Feb. 16 Wed.</td>
<td>Garment Construction Details</td>
<td>Discussion (Ch.4) - Garment Construction Details Begin Lab Activity 4.1</td>
<td>Read Chapter 5 in Apparel Quality Woven Shirt from Lab 2.1 for lab 4.1</td>
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</tbody>
</table>

*Quiz Chapter 12 available on D2L (opens in TCU Online at*
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Learning Activity</th>
<th>Preparation/Assigned Content for Next Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 21</td>
<td>Apparel Sizing and Fit Strategies</td>
<td>Discussion (Ch. 5)- Apparel Sizing and Fit Strategies</td>
<td>See TCU Online for readings and additional resources.</td>
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<tr>
<td></td>
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<td>Quiz Chapter 4 available on D2L (opens in TCU Online at 12:00am and will close at 11:59pm CST)</td>
<td>Read Lab Manual: lab 5.1</td>
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<td></td>
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<td>Lab - Use this day to complete labs 3.1, 3.3 &amp; Piece Goods Handout, and 3.4.</td>
<td>Read Lab Manual: labs 9.1 – 9.4</td>
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<td></td>
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<td>Continue working on Lab Activities 3.5 and 4.3</td>
<td>Garment of your choice for lab 9.1.</td>
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<td>Lab Manual: lab 5.1, 9.1, 9.3</td>
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<td>Garment of your choice for lab 9.1.</td>
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<td></td>
<td>Lab 3.1, 3.3 &amp; Piece Goods Handout, 3.4 Due to folder in TCU Online no later than 11:59PM (CST) Oct. 12</td>
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</tbody>
</table>

<p>| Feb. 23    | Lab Equipment Overview for labs 9.2 &amp; 9.3 | Demonstrations of lab equipment Quiz Chapter 5 available on D2L (opens in TCU Online at 12:00am and will close at 11:59pm CST) | See TCU Online for readings and additional resources. |
|           |                                        | Lab - Begin working on Lab Activities 9.2 &amp; 9.3                                    | Piece Goods specimens for lab 9.2           |
|           |                                        | Tests Performed in Lab (groups will round robin):                                  | Comparison garments for lab 3.5, 4.3, &amp; 9.3 |
|           |                                        | Comparison Project: Bursting Strength Test (Instron)                               |                                             |
|           |                                        | Comparison Project: Colorfastness to Crocking (Crockmeter)                          |                                             |
|           |                                        | Comparison Project: Pilling (ASTM D3512 -Random Tumbling Pill Test)                  |                                             |
|           |                                        | Piece Goods Project: Rotary Abrasion                                               |                                             |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Learning Activity</th>
<th>Preparation/Assigned Content for Next Class</th>
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<tbody>
<tr>
<td></td>
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<td>Piece Goods Project: Colorfastness to Crocking (Crockmeter)</td>
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<td>Continue working on Lab Activities 3.5 and 4.3</td>
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<td><strong>Week 8 February 28 – March 6</strong></td>
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<tr>
<td>Feb. 28</td>
<td>Textile Performance, Appearance,</td>
<td><strong>Discussion: Textile Performance and Appearance &amp; Abrasion and Wear</strong></td>
<td>See TCU Online for readings and additional resources.</td>
</tr>
<tr>
<td>Mon</td>
<td>Abrasion and Wear</td>
<td><strong>Lab - Begin Lab Activity 5.1</strong></td>
<td><strong>Lab 4.1 &amp; 4.2 Due</strong> to folder in TCU Online no later than 11:59PM (CST) Oct. 19.</td>
</tr>
</tbody>
</table>

| March 2    | Textile Performance Abrasion and   | Introduction of Portfolio project                                                | Work on Portfolio Project                  |
| Wed.       | Wear                               | Continue working on Lab Activities 9.2-9.3                                      |                                             |
|            |                                    | **Lab - Continue working on Lab Activities 3.5 and 4.3**                         |                                             |

<table>
<thead>
<tr>
<th>Week 9 March 7 – March 13 (SPRING BREAK)</th>
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<tbody>
<tr>
<td>March 7 Mon.</td>
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<td>March 9 Wed.</td>
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<th>Week 10 March 14 – March 20</th>
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<tbody>
<tr>
<td>March 14 Mon.</td>
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<td>Date</td>
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<td>March 16</td>
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<td>March 20</td>
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<tr>
<td>March 23</td>
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<tr>
<td>Week 12</td>
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<td>March 28</td>
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<td>March 30</td>
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<td>Wed.</td>
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<td>April 4</td>
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<td>Mon.</td>
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<td>April 6</td>
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<tr>
<td>Wed.</td>
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<td>Week 13</td>
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<tr>
<td>Week 14</td>
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<td>April 11</td>
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<td>Mon.</td>
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<td>April 13</td>
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<tr>
<td>Wed.</td>
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<td>Date</td>
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<tr>
<td><strong>Week 15 April 18 – April 24</strong></td>
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<tr>
<td>April 18 Mon.</td>
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<tr>
<td>April 20 Wed.</td>
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<td><strong>Week 16 April 25 – May 1</strong></td>
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<tr>
<td>April 25 Mon.</td>
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<tr>
<td>April 27 Wed.</td>
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<tr>
<td><strong>Final Exam Week May 2 – May 6</strong></td>
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<td>April 28 – May 3</td>
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</tbody>
</table>

**Student Perception of Teaching (SPOT)**
Towards the end of the term you will receive an email asking you to complete your SPOT for this course. I appreciate your thoughtful and reflective feedback to help make this course successful for future students. You can fill out the SPOT by clicking on the link in the email or in TCU Online when SPOTs open.

**TCU Mission Statement**

To educate individuals to think and act as ethical leaders and responsible citizens in the global community.

**Department of Fashion Merchandising’s Mission Statement**

To provide an educational environment rich in professional partnerships and current industry practices for the advancement of individuals as future leaders in a global society.

The **vision of the Department of Fashion Merchandising is three-fold:**

1. to prepare students with the skills to be highly competitive at national and international levels;
2. to maintain a faculty composition of highly recognized scholars and practitioners within their respective areas of expertise;
3. to continually integrate the latest technology and industry standards to keep pace with the changing demands of the fashion merchandising professions.

The Department of Fashion Merchandising supports the mission of the university and college through the implementation of common curricular themes that require students to exercise critical thinking skills related to professional ethics, global awareness, cultural adaptability, and social responsibility within the industry.