## General Studies Request Form

Permanent numbered courses must be submitted to the workflow in <u>Kuali CM</u> before a General Studies request is submitted here. The General Studies Council will not review requests ahead of the new course being reviewed by the Senate.

More detailed information about requesting General Studies designations is found here.

# Proposal Contact Information

Submitter Name Submitter Em			Submitter Phone Number	
Dennita Sewell	dennita.sewell@asu.edu		602-738-2833	
College/School		Department/School		
Herberger Institute for Design and the Arts (CHI)		School of Art (CART)		
Submission Information				
Type of submission:				
New Request (Course or topic	c does not currently hold t	this designa	ation)	
Requested Effective Date				
Fall 2023				
ASU Request				
ls this request for a permaner	nt course or a topic?			
Permanent Course				
Subject Code	Course Number		Units/Credit Hours	
FSH	200 & 201		4 (3 credit lecture + 1 credit lab)	
Course Information Courses approved for Gener	ral Studies require manda	tory review	every five years.	

#### Course Title

Textiles Survey (FSH 201) and Textiles Survey Lab (FSH 200)

#### **Course Description**

FSH 201 - Offers a broad survey of textiles as they relate to art, fashion and their place in human culture. Topics explore material content, weaves and textile properties; the artistic and social history of textiles; modern textile manufacturing and consumption; and innovations in textile invention for science and industry. The goal of this semester is for you to more fully understand the underlying content and structure of textiles in order to better appreciate the overwhelming variety of textiles that have been created over time, place, gender, ethnicity, purpose and methodology.

FSH 200 - Complements and supports the learning objectives and outcomes for the textiles survey lecture. Includes identification of fibers, yarns and fabrics using various methods of scientific testing and other activities to enrich students' understanding of textiles' characteristics and properties and their end uses.

Is this a crosslisted course?

No

Is this course offered by another academic unit?

No

#### **General Studies**

## Requested Designation

SG - Natural Sciences - General

SG: Natural Sciences - General and SQ: Natural Sciences - Quantitative

### **Rationale and Objectives**

Public scientific literacy, critical for sound decisions on scientifically infused issues such as climate change, includes understanding of basic science concepts, such as the fundamental behavior of matter and energy. It also includes the understanding that "science" is not an encyclopedic collection of facts. Rather, it is a process of exploration that embraces curiosity, inquiry, testing, and communication, to reduce uncertainty about nature. Absent understanding of scientific concepts and of the nature of science, science and pseudoscience are difficult to distinguish, and normal scientific disagreements may be misinterpreted as ideological or political disputes. The goal of the natural sciences (SQ/SG) requirement, including the laboratory requirement, is to instill understanding of basic science content and of the nature of science in every ASU graduate.

# [Revised April 2014]

Note: "SG" and "SQ" requirements cannot be met by courses:

- 1. Presenting a qualitative survey of a discipline.
- 2. Focusing on the impact of science on social, economic, or environmental issues.
- 3. Focusing on a specific or limiting but in-depth theme suitable for upper-division majors.

For all Natural Science "SG" and "SQ" core area courses, the following are critical criteria and must be met:

"SG" and "SQ" Criteria 1

Course emphasizes the mastery of basic scientific principles and concepts.

Identify the submitted documentation that provides evidence.

Course objectives #2, 4; Student learning Outcomes #5, 6, 7; Lab Schedule

How does this course meet the spirit of this criteria?

This course requires that students learn fundamental scientific principles and concepts related to the analysis of fibers, textiles, and their manufacturing processes.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

For example: Chemical: Modules 1, 2, 3,4 Lab 1, 2, 3, 4

Molecular structure, molecular composition, solubility, flammability.

Thermoplastic:
Module 5 and Lab 5
Temperature, stability, Greenhouse effect

Thermoregulation:
Module 11 and Lab 11
Water vapor transport, energy transport

Physiology: Module 13

#### "SG" and "SQ" Criteria 2

Addresses knowledge of scientific method.

Identify the submitted documentation that provides evidence.

Lab Syllabus

How does this course meet the spirit of this criteria?

Use of scientific method as a rigorous means of addressing scientific questions is a unifying theme throughout the course and is addressed in all Lecture units and Labs

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For Example:

All Lecture Units and Labs: Focus on real-world data of textile identification where students are expected to observe, hypothesize and draw conclusions from data in order to understand and interpret the properties, structures, and chemistry of fibers; finishes and dye in relation to use and manufacturing applications.

## "SG" and "SQ" Criteria 3

Includes coverage of the methods of scientific inquiry that characterize the particular discipline.

Identify the submitted documentation that provides evidence.

Lab Syllabus

How does this course meet the spirit of this criteria?

Application of Scientific method as a rigorous means of addressing scientific questions is a unifying theme throughout the course and is addressed in all Lecture units and labs.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For Example:

All Module and Lab activities involve research and observations, data collecting, analysis and conclusions.

Labs: 2-12 involve research and observations, data collecting, analysis and conclusions and identifying characteristics of different fibers, weaves, fabrics, dyes, and finishes related to textile performance, comfort, appearance, uses, environmental concerns, sustainability, etc.

#### "SG" and "SQ" Criteria 4

Addresses potential for uncertainty in scientific inquiry.

Identify the submitted documentation that provides evidence.

Lab Syllabus Course Objectives #5; Student Learning Outcomes #7

How does this course meet the spirit of this criteria?

Inherent to understanding natural and synthetic fibers, fabrics, dyes and finishes predicting their performance, properties, uses and impact involves a fair amount of uncertainty. As such this is addressed in most lecture units which each deal with the characteristics and properties of textile manufacturing, end uses and environmental concerns.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For example:

Modules 1-12: include discussion of potential uncertainties in the textile manufacturing industry.

#### Labs 3-12:

Discussion of testing equipment and processes used to assess individual fibers and textiles with all uncertainties portrayed and discussed in the manufacturing industry.

## "SG" and "SQ" Criteria 5

Illustrates the usefulness of mathematics in scientific description and reasoning.

Identify the submitted documentation that provides evidence.

Lab Syllabus Student Learning outcomes #5; Lab Syllabus Course Schedule weeks 3,4,5,6,7

How does this course meet the spirit of this criteria?

The course directly addresses the importance of qualitative and quantitative measurement in scientific description and reasoning for fiber and fabric performance.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For Example:

Modules 3, 4 5, 6, 7 involve qualitative and quantitative assessment of fiber or fabric for understanding structures and properties applicable for various end uses.

Labs 3, 4 5, 6, 7 involve the measurement of textiles to understand dimensional changes such as shrinkage and skew. These calculations are evaluated and linked to determine suitable applications of various materials.

#### "SG" and "SO" Criteria 6

Includes **weekly** laboratory and/or field sessions that provide hands-on exposure to scientific phenomena and methodology in the discipline, and enhance the learning of course material.

Identify the submitted documentation that provides evidence.

# Lab Syllabus

How does this course meet the spirit of this criteria?

All weekly labs and most lecture units incorporated hands-on sessions, where students engage with scientific methodology.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For Example:

All Modules: Students submit report in which they are asked to articulate their thought processes and developmental understanding of course content and in-class scientific activities, and these receive written and verbal feedback from the professor.

Labs 3-12: Students conduct calculations, observe data, test hypotheses, and make interpretations. They then use those data to submit answers to a series of questions related to each task associated with the lab. Students are given multiple attempts to answer the questions, with feedback given for each answer, including guidance to correct incorrect responses.

# "SG" and "SQ" Criteria 7

Students submit written reports of laboratory experiments for constructive evaluation by the instructor.

Identify the submitted documentation that provides evidence.

Lab Syllabus Course Schedule week 11, 12

How does this course meet the spirit of this criteria?

Students receive feedback to weekly reports, in-class experiments, and activities.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For Example:

All Modules: Students submit reports in which they are asked to articulate their thought processes and developmental understanding of course content and in-class scientific activities, and these receive written and verbal feedback from the professor.

Labs 3-12: Students conduct calculations, observe data, test hypotheses, and make interpretations. They then use those data to submit answers to a series of questions related to each task associated with the lab. Students are given multiple attempts to answer the questions, with feedback given for each answer, including guidance to correct incorrect responses.

#### "SG" and "SQ" Criteria 8

Course is general or introductory in nature, ordinarily at lower-division level; not a course with great depth or specificity.

Identify the submitted documentation that provides evidence.

Syllabus Course Description

How does this course meet the spirit of this criteria?

The course is an introductory survey that students take in their freshman level that familiarizes them with a foundation of knowledge and experiences with textiles focused on its primary relationship with the human environment, natural and man-made processes, and products.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

Syllabus schedule shows the scope of inquiry which introduces new concepts and applications each week.

"SG" and "SQ" Criteria 9

At least one of these additional criteria must be met within the context of the course:

- A. Stresses understanding of the nature of basic scientific issues.
- B. Develops appreciation of the scope and reality of limitations in scientific capabilities.
- C. Discusses costs (time, human, financial) and risks of scientific inquiry.

"SG" and "SO" Criteria 9A Information

Stresses understanding of the nature of basic scientific issues.

Identify the submitted documentation that provides evidence.

Syllabus Student Learning Outcomes

How does this course meet the spirit of this criteria?

The course is organized around human interactions with natural and manufacturing processes. Students' engagement is focused on the interconnection between cultural influences in society and the scientific technologies that create the environment in which they live.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

All 12 Modules and Labs blend a scientific understanding of the mechanics and dynamics of textiles with cultural influences.

"SG" and "SO" Criteria 9B Information

Develops appreciation of the scope and reality of limitations in scientific capabilities.

Identify the submitted documentation that provides evidence.

**Syllabus** 

How does this course meet the spirit of this criteria?

Students explore the factors behind the uncertainties in scientific technologies and the potential resolutions for these uncertainties to understand the personal and global environmental impact of textile production.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

### For example:

All Modules and Labs especially 3-12: Evaluations and discussions to support potential resolutions and outcomes for improving sustainability and lessening environmental impacts to understand how science either correctly or incorrectly assesses textile production.

Students research and report findings about water usage, and chemical run off into land and water systems, and how to apply to closed loop systems to lessen these polluting problems. They quantify and make links between uncertainties and the challenges of predicting sustainable systems.

### "SG" and "SQ" Criteria 9C Information

Discusses costs (time, human, financial) and risks of scientific inquiry.

Identify the submitted documentation that provides evidence.

Syllabus course objectives #7; Student Learning Outcomes #10

How does this course meet the spirit of this criteria?

Fundamental to all lecture units is an understanding of the concept of risk and the negative impacts of textile production and its impact on humans and the global environment.

Provide detailed evidence of how this course meets this criteria (i.e. where in the syllabus or other course materials).

#### For example:

All Modules: Understanding the environmental impact at a global, societal, and individual level is strongly emphasized for all sectors of textile production for end uses and the costs to the consumer. Most Labs (4–8, 10, 11)

Focus on the textiles global economy as one of the top 5 major industries and its financial impact on a country's the production and employment capabilities.

Attach a sample syllabus for this course or topic, including the list of any required readings.

## FSH 201 & 200 - Textiles Survey & Lab Syllabus.pdf

Attach the table of contents from any required textbook(s).

## Textiles TAble of Contents.pdf

Attach any other materials that would be relevant or helpful in the review of this request.

SQ JUSTIFICATION ADDENDUM.docx

# Form Submission - Proposer

Submitted for Approval | Proposer

Dennita Sewell - September 29, 2022 at 10:31 PM (America/Phoenix)

# **Department Approval**

**Approved** 

Melissa Button - December 5, 2022 at 11:30 AM (America/Phoenix)

## Provost's Office Review

Sent Back

#### **April Randall**

Joni Lochtefeld - December 6, 2022 at 4:34 PM (America/Phoenix)

Per the instructions on the form, current syllabus information for FSH 201 must also be entered in Kuali Curriculum Management (CM). If you don't have access to Kuali CM, you'll need to work with your unit and coordinate with the individual(s) able to submit Kuali CM course proposals. Please see the General Studies Request FAQ for more information: https://docs.google.com/document/d/1BF\_lpZ4neXWRQgZfXj-5lLS07EEnNu34Z35S8CrAEVk/

# Form Submission - Proposer

Submitted for Approval | Proposer

Dennita Sewell - December 9, 2022 at 2:48 PM (America/Phoenix)

# Department Approval

**Approved** 

Melissa Button - December 12, 2022 at 1:00 PM (America/Phoenix)

i approve this proposal moving forward, however i do not feel qualified to judge whether all the criteria have been met per ASU standards

# Provost's Office Review

Approved

## **April Randall**

Joni Lochtefeld - December 19, 2022 at 12:53 PM (America/Phoenix)

#### Natural Sciences Committee Review

Acknowledge Cancelled

Steve Semken - December 19, 2022 at 1:19 PM (America/Phoenix)

Our committee has received notification and will review this in time for the Feb 1 2023 meeting.

Tamiko Azuma - December 19, 2022 at 1:21 PM (America/Phoenix)

Darryl Morrell

Ashli Morgan

# **General Studies Council Meeting**

Sent Back

**April Randall** 

Joni Lochtefeld - December 19, 2022 at 1:56 PM (America/Phoenix)

Returning so subcommittee can leave recommendation.

## Provost's Office Review

Approved

**April Randall** 

Joni Lochtefeld - December 19, 2022 at 1:57 PM (America/Phoenix)

#### Natural Sciences Committee Review

Acknowledgement Requested

Steve Semken - January 26, 2023 at 3:01 PM (America/Phoenix)

FSH 200 and 201 are not approved for General Studies SG or SQ credit at this time for the following reasons:

- (1) For SG or SQ designation of a paired (3 +1) lecture-lab course, both courses must be fully focused on natural science, with the labs complementing the lectures. The title and syllabus for FSH 201, the 3-credit lecture course, do not identify it as a science course but rather as a survey of textiles in art and fashion and the textile industry, in which textile science is addressed in some modules but not throughout the course. Where textile science is identified, it cannot be determined whether students in the course meaningfully engage with scientific principles and methods (SG Criteria 1 through 5) that determine textile properties and inform methods of analysis and processing of textiles.
- (2) For FSH 200 (currently FSH 294), the 1-credit lab course, again there is not enough information to ascertain how deeply students engage with scientific principles and methods (SG Criteria 1 through 5) nor how they specifically carry out laboratory practices, data analysis, or reporting (SG Criteria 6 and 7). The lab activities appear to focus on applications of different kinds of tests but there is no indication that students are learning chemical and physical principles through inquiry.

Resubmission of an application for SG or SQ designation that addresses the above concerns and includes representative and complete examples of lecture modules and lab activities is welcome. However, we note that this would require a considerable revision of the FSH 201 curriculum and syllabus to make it a science-driven course.

Tamiko Azuma

Darryl Morrell

Ashli Morgan
General Studies Council Meeting
Waiting for Approval
April Randall
Joni Lochtefeld
Registrar Notification
Notification
Courses Implementation
mplementation
Approval
Rebecca Klein
Lauren Bates
Alisha Von Kampen
Proposer Notification
Notification
Dennita Sewell
ASU Notifications
Notification
Leticia Mayer
Peggy Boivin