MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Ms. Robin Ayers
Dr. Ting-Hui Lee
Dr. Phil Lienesch
Dr. Jeremy Maddox
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Mr. Jason Wilson

FROM: Dr. Stuart Burris, Chair

SUBJECT: Agenda for Thursday, March 25th at 4:00 p.m.

A. OLD BUSINESS:

I. Consideration of the minutes of the February 25, 2021 meeting.

B. NEW BUSINESS:

Type of item	Description of Item & Contact Information
Informational	The following proposal was submitted via the expedited process: **Proposal to Revise Course Prerequisites/Corequisites** ASTR 314, Observational Astronomy, 3 hrs.
Consent	**Proposal to Revise Course Prerequisites/Corequisites** CS 170, Problem Solving and Programming, 3 hrs. Contact: Huanjing Wang, Huanjing.wang@wku.edu, x2672
Consent	**Proposal to Revise Course Prerequisites/Corequisites** CS 301, Game Programming, 3 hrs. Contact: Michael Galloway, Jeffrey.galloway@wku.edu, x2859
Action	**Proposal to Revise a Program** Ref. 508, Major in Agriculture, Turf & Golf Course Management Concentration, 61-64 hrs. Contact: Dan Strunk, William.strunk@wku.edu, x5965
Action	**Proposal to Create a New Certificate Program** Certificate in Floristry, 15 hrs. Contact: Roger Dennis, roger.dennis@wku.edu, x3151
Action	**Proposal to Create a New Course** MATH 270, The Mathematics of Social Justice, 3 hrs. Contact: Nicholas Fortune, nicholas.fortune@wku.edu, x3651

C. OTHER BUSINESS

I. Second reading of the changes to the Ogden College Curriculum Committee Standing Rules.

Minutes – OCSE Curriculum Committee **February 25, 2021**

Members Present:
Ms. Robin Ayers
Dr. Ting-Hui Lee
Dr. Pat Kambesis
Dr. Phil Lienesch
Dr. Jeremy Maddox
Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian
Mr. Jason Wilson

Guest:
Dr. Huanjing Wang
Dr. Bashar Haddad

FROM: Dr. Stuart Burris, Chair

The meeting was called to order at 4:00pm.

OLD BUSINESS:
Mienaltowski/Willian moved to approve of the minutes of the January 2021 meeting. Approved as presented.

NEW BUSINESS:

Action Agenda

School of Engineering & Applied Sciences
Kambesis/Willian moved to table the Proposal to Revise Course Credit Hours: CS 371. Proposal tabled until next meeting.

Willian/Kambesis moved to approve the Proposal to Revise a Program: Ref. 533, Construction Management. Motion approved.

Proposal Date:02/26/21

Ogden College of Science and Engineering
Physics and Astronomy
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: Michael Carini, mike.carini@wku.edu, x56198

1. Identification of course:

1.1 Course prefix (subject area) and number: ASTR 314

1.2 Course title: Observational Astronomy

2. Current prerequisites/corequisites/special requirements: ASTR 214

3. Proposed prerequisites/corequisites/special requirements: ASTR 214 or any two of PHYS 103, ASTR 104, ASTR 106

4. Rationale for the revision of prerequisites/corequisites/special requirements: This revision aligns the pre-requisites for Astronomy 314 with the recent revisions made to the Astronomy minor.

5. Effect on completion of major/minor sequence: The change is necessary to allow students in option B of the revised Astronomy minor to complete the required course sequence.

6. Proposed term for implementation: Fall 2021

7. Dates of prior approvals:

Physics and Astronomy Department	**2/24/2021**
Physics and Astronomy Chair	**2/26/2021**
Dean, OCSE	**2/26/2021**
Provost	

Proposal Date:11/8/2020

Ogden College
School of Engineering and Applied Sciences
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: Huanjing Wang, Huanjing.wang@wku.edu, 745-2672

1. Identification of course:

1.1 Course prefix (subject area) and number: CS 170

1.2 Course title: Problem Solving and Programming

2. Current prerequisites/corequisites/special requirements:

Prerequisite: (MPE - Algebra with a score of 14 or SAT Mathematics Score with a score of 560 or ACT Math with a score of 22 or KYOTE College Algebra with a score of 14)

3. Proposed prerequisites/corequisites/special requirements:

Prerequisite: Math 115 (May be taken concurrently) or Math 116 (May be taken concurrently) or MPE - Algebra with a score of 14 or higher or SAT Mathematics Score with a score of 560 or higher or ACT Math with a score of 22 or higher or KYOTE College Algebra with a score of 14 or higher.

4. Rationale for the revision of prerequisites/corequisites/special requirements:

Students often have trouble to register using test score. A change to Math 115/116 makes registration easier,

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2021

7. Dates of prior committee approvals:

School of Engineering and Applied Sciences 3/5/21

Ogden College Dean's Office _____

Provost _____

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

1/28/2021, Bruce Kessler and Robin Ayers of Math department

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

N/A

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stacy Wilson Digitally signed by Stacy Wilson Date: 2021.03.19 15:48:24 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: 1/13/2021

Ogden College of Science & Engineering
School of Engineering and Applied Sciences
Proposal to Revise Course Prerequisites/Corequisites
(Consent Item)

Contact Person: Michael Galloway, Jeffrey.galloway@wku.edu, 270-745-2859

1. Identification of course:

1.1 Course prefix (subject area) and number: CS 301

1.2 Course title: Game Programming

2. Current prerequisites/corequisites/special requirements:

(CS 146 with a minimum grade of C or CS 170 with a minimum grade of C or CS 180 with a minimum grade of C or CS 239 with a minimum grade of C) and ART 244 with a minimum grade of C

3. Proposed prerequisites/corequisites/special requirements:

CS 146 with a minimum grade of C or CS 170 with a minimum grade of C or CS 180 with a minimum grade of C or CS 239 with a minimum grade of C

4. Rationale for the revision of prerequisites/corequisites/special requirements:

Requiring ART 244 Computer Animation 1 along with a programming language course is too restrictive and unnecessary for CS 301. CS 301 was created as a required course for the Game Design Certificate and ART 244 is also a required course for the Game Design Certificate. These courses do not need to be taken in a specific order, as knowledge of information from one is not necessary for success in the other. This change will allow students to progress through the Game Design Certificate curriculum without unnecessary barriers. The Department of Art & Design are in agreement with this revision.

5. Effect on completion of major/minor sequence:

None

6. Proposed term for implementation:

Fall 2021

7. Dates of prior committee approvals:

School of Engineering and Applied Sciences	**3/5/21**
Ogden College Curriculum Committee	
Undergraduate Curriculum Committee	
University Senate	

University Undergraduate Curriculum Proposal Checklist

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1/14/2021, Game Design committee: Kristina Arnold, Joon Sung, Joe Hoffswell

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

N/A

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Stacy Wilson Digitally signed by Stacy Wilson Date: 2021.03.19 15:47:52 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal to Revise a program: B.S. in Agriculture – Turf and Golf Course Management concentration
Ogden College of Science and Engineering
Department/Unit: Agriculture and Food Science

Section 1: Proponent Contact Information

1.1 Name/Title: Dr. Dan Strunk / Assistant Professor
1.2 Email address: william.strunk@wku.edu
1.3 Phone #: (270) 745-5965

Section 2: Program Information

2.1 Classification of Instructional Program (CIP) reference number: 508

2.2 Current Program title: B.S. in Agriculture – Turf and Golf Course Management Concentration

2.3 Current total number of credits required in the program: 61-64

Section 3: Proposed program revisions and rationales

3.1 First proposed revision: Provide flexibility to students by reducing the number of required electives from 32-35 credit hours to 15 credit hours plus an additional 9 credit hours from a list of selected elective offerings. In combination with the 29 credit hours required of basic agriculture courses, the total number of credit hours required for the Turf and Golf Course management concentration will be 50. This change will make it more likely that students fulfill academic requirements within the standard four year time period, especially students that transfer from other institutions or change majors later in their academic careers.

Section 4: Consultations: Do any of the proposed revisions in section 3 above involve or in any other way impact other departments/units? YES NO

Section 5: Proposed term for implementation: Fall 2021

Section 6: Approval Flow Dates:

Department of Agriculture and Food Science: March 4, 2021
Ogden College Curriculum Committee:
Professional Education Council: N/A
Undergraduate Curriculum Committee:
University Senate:

Section 7: Required Appendices: Current & proposed program descriptions:

7.1 Current B.S. in Agriculture – Turf and Golf Course Management Concentration

Required Courses

1. Take the following required basic agriculture courses:

	Credits	Notes
AGRO 110 – Intro. to Plant Science	3	
ANSC 140 – Intro. to Animal Science	3	
AGEC 160 – Intro. to Agribusiness and…	3	
AGMC 170 – Intro. to Agric. Mechanization	2	
AGMC 171 – Intro. to Agric. Mechanization Lab	1	
AGRI 175 – University Experience - Agriculture	1	
AGMC 176 – Agriculture Safety	2	
AGRI 291 – Intro. to Data Analysis and Interpretation, or AGRI 491 – Data Analysis and Interpretation	3	
AGRO 320 – Crop Physiology, or AGMC 326 - Precision Agric., or ANSC 345 – Principles of Animal Nutrition, or AGEC 360 – Agricultural Economics	3	
AGRO 350 – Soils	3	
AGRI 397 – Agriculture Career Planning	1	
AGRI 494 – Contemporary Agricultural Issues	3	

2. Students must also take AGRI 398

AGRI 398 – Seminar	1	

3. Take the following courses required for the Turf and Golf Course Management Conc.

~~**AGMC 172 – Lawn and Garden Equipment**~~	~~**2**~~	
~~**AGMC 173 – Lawn and Garden Equipment lab**~~	~~**1**~~	
~~**AGMC 270 – Turf Mowing Equipment Maintenance**~~	~~**2**~~	
~~**AGMC 271 – Turf Mowing Equipment Maintenance lab**~~	~~**1**~~	
AGMC 272 – Turf Equip. Management and Oper.	2	
AGMC 273 – Turf Equip. Management and Oper. Lab	1	
~~**AGMC 371 – Agricultural Mechanics**~~	~~**1**~~	
~~**AGMC 372 – Agricultural Mechanics Lab**~~	~~**2**~~	
AGMC 392 – Turf Irrigation	2	
AGMC 393 – Turf Irrigation lab	1	
~~**HORT 301 – Introduction to Landscape Plants**~~	~~**2**~~	
~~**HORT 302 – Introduction to Landscape Plants lab**~~	~~**1**~~	
~~**HORT 304 – Landscape Maintenance**~~	~~**2**~~	
~~**HORT 305 – Landscape Maintenance lab**~~	~~**1**~~	
AGRI 369 – Cooperative education in Agriculture II	1-4	
~~**AGRO 351 – Soils lab**~~	~~**1**~~	
~~**AGEC 260 – Golf Course Management,**~~ ~~**or HORT 475 – Selected topics in Agriculture**~~	~~**3**~~	
~~**HORT 474 – Course Does Not Exist**~~	~~**3**~~	

Total Required Credits: ~~**61-64**~~

7.2 <u>Proposed</u> B.S. in Agriculture – Turf and Golf Course Management Concentration

Required Courses

1. Take the following required basic agriculture courses:

	Credits	Notes
AGRO 110 – Intro. to Plant Science	3	
ANSC 140 – Intro. to Animal Science	3	
AGEC 160 – Intro. to Agribusiness	3	
AGMC 170 – Intro. to Agric. Mechanization	2	
AGMC 171 – Intro. to Agric. Mechanization Lab	1	
AGRI 175 – University Experience - Agriculture	1	
AGMC 176 – Agriculture Safety	2	
AGRI 291 – Intro. to Data Analysis and Interpretation, or AGRI 491 – Data Analysis and Interpretation	3	
AGRO 320 – Crop Physiology, or AGMC 326 - Precision Agric., or ANSC 345 – Principles of Animal Nutrition, or AGEC 360 – Agricultural Economics	3	
AGRO 350 – Soils	3	
AGRI 397 – Agriculture Career Planning	1	
AGRI 494 – Contemporary Agricultural Issues	3	

2. Students must also take AGRI 398

AGRI 398 – Seminar	1	

3. Take the following courses:

HORT 313 – Turfgrass Management	3	
AGMC 272 – Turf Equip. Management and Oper.	2	
AGMC 273 – Turf Equip. Management and Oper. Lab	1	
AGMC 392 – Turf Irrigation	2	
AGMC 393 – Turf Irrigation lab	1	
AGRI 369 – Cooperative education in Agriculture II	**3**	

4. **Select 9 credit hours from the following:**

HORT 301 – Introduction to Landscape Plants	**2**	
HORT 302 – Introduction to Landscape Plants lab	**1**	
HORT 304 – Landscape Maintenance	**2**	
HORT 305 – Landscape Maintenance lab	**1**	
HORT 340 – Greenhouse Crop Production	**3**	
HORT 407 – Plant Propagation	**2**	
HORT 408 – Plant Propagation lab	**1**	
HORT 475 – Special Topics in Agriculture	**3**	
AGEC 260 – Golf Course Management	**3**	
AGMC 172 – Lawn and Garden Equipment	**2**	
AGMC 173 – Lawn and Garden Equipment lab	**1**	
AGMC 270 – Turf Equip. Maintenance	**2**	
AGMC 271 – Turf Equip. Maintenance lab	**1**	
AGMC 371 – Agricultural Mechanics	**1**	
AGMC 372 – Agricultural Mechanics lab	**2**	
AGRO 310 – Pest Management	**3**	
AGRO 351 – Soils Lab	**1**	
AGRO 352 – Soil Fertility and Fertilizers	**3**	
AGRO 409 – Weed Science	**2**	
AGRO 410 – Weed Science Laboratory	**1**	
AGRO 418 – Plant Pathology	**3**	

Total Required Credits: **50**

BACHELOR of SCIENCE in AGRICULTURE (#508)
Concentration in Turf and Golf Course Management
Department of Agriculture
Ogden College of Science and Engineering
Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected.

Success Markers

SAMPLE - 4 Year Plan

FIRST YEAR

Visit The Learning Center for free tutoring

Fall Semester		Spring Semester	
ENG 100 – Introduction to College Writing (F-W1)	3	COMM 145 – Business and Professional Speaking (F-OC)	3
MATH 115 – Applied College Algebra	3	AGMC 176 – Agriculture Safety	2
CHEM 105/106 – Fundamentals of Chemistry (with a Lab) (E-NS, SL)	4	AGMC 170/171 - Agriculture Mechanics (with a Lab)	3
AGRO 110 – Introduction to Plant Science	3	CHEM 107/108 – Fundamentals of Organic Chemistry (with a Lab)	4
AGRI 175 – University Experience - Agriculture	1	Arts & Humanities (E-AH)	3
TOTAL CREDIT HOURS	**14**	**TOTAL CREDIT HOURS**	**15**

SECOND YEAR

Volunteer or Join a Student Organization like Green Toppers

Fall Semester		Spring Semester	
ENG 200 – Introduction to Literature (E-AH)	3	World Language, if needed, OR General Elective	3
ANSC 140 – Introduction to Animal Science	3	AGRI 291 – Introduction to Data Analysis and Interpretation	3
BIOL 120/121 – Biological Concepts: Cell Metabolism and Genetics (with a Lab)	4	AGRO 320 – Crop Physiology	3
Social and Behavioral Studies (E-SB)	3	HIST 101 – World History I OR HIST 102 – World History II (F-SB)	3
HORT 313 – Turfgrass Management	3	ENG 300 – Writing in the Disciplines (F-W2)	3
TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**15**

THIRD YEAR

Visit Career Services

Fall Semester		Spring Semester	
Connections: Social & Cultural (K-SC)	3	AGRI 397 – Agriculture Career Planning	1
AGRO 350/351 – Soils (with a Lab)	4	AGMC 270/271 – Turf Mowing Equipment Maintenance (with a Lab)	3
AGEC 160 – Introduction to Agribusiness and Agricultural Entrepreneurship	3	AGMC 272/273 – Turf Equipment Management and Operation (with a Lab)	3

	Connections: Local to Global (K-LG)	3	Elective Course (AGRI/HORT/AGEC/AGRO)	3
	AGEC 260 – Golf Course Management	3	HORT 301/302 – Introduction to Landscape Plants	3
	TOTAL CREDIT HOURS	**16**	**TOTAL CREDIT HOURS**	**13**

FOURTH YEAR	**Fall Semester**		**Spring Semester**	
	AGRI 398 – Seminar	1	AGRI 494 – Contemporary Agricultural Issues	3
Apply for Graduation	AGMC 392/393 – Turf Irrigation	3	Elective Course (AGRI/HORT/AGEC/AGRO)	3
	Elective Course (AGRI/HORT/AGEC/AGRO)	3	Elective Course (AGRI/HORT/AGEC/AGRO)	3
	Elective Course (AGRI/HORT/AGEC/AGRO)	3	Elective Course (AGRI/HORT/AGEC/AGRO)	3
	AGRI 369 – Cooperative Experience in Agriculture	3	Elective Course (AGRI/HORT/AGEC/AGRO)	3
	Connections: Systems (K-SY)	3		
Celebrate!	**TOTAL CREDIT HOURS**	**16**	**TOTAL CREDIT HOURS**	**15**
Total Credit Hours: 120				

* Denotes prerequisite courses before program admission

PLEASE NOTE: Prerequisites, Course Numbers, and Course Titles are subject to change. Consult your advisor each semester.

For more Information:

Department: Agriculture

Website: www.wku.edu/agriculture

Phone: 270-745-3151

Email: agriculture@wku.edu

Course Descriptions: http://www.wku.edu/undergraduatecatalog/

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

There are no changes to the revised program that impact, conflict, or change co/ prerequisites for any department.

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

The proposed changes will not alter budgets nor require additional faculty or staff.

☑ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fred J. DeGraves Digitally signed by Fred J. DeGraves Date: 2021.03.22 08:26:18 -05'00'

Department Head

Dean or Designee

Date

Date

Proposal Date: March 4, 2021

Ogden College of Science and Engineering
Department of Agriculture and Food Science
Proposal to Create a New Certificate Program
(Action Item)

Contact Person: Roger Dennis roger.dennis@wku.edu 270-745-3151

1. Identification of Program:

1.1 Program title: Floristry

1.2 Required hours in certificate program: 15 hours

1.3 Special Information: The program is proposed as part of the WKU comprehensive academic program review (CAPE), wherein the committee recommends to explore a certificate program. It was a CAPE recommendation and will remove the minor and offer a stand-alone credential to students. It is recommended an exploration of a certificate program in lieu of the Floristry Minor: credential; for students in majors related to horticulture, hospitality, interior design, event planning and tourism. The certificate program will enhance the training and enrollment of students, following market trends, capitalize on faculty expertise and research, and streamline the certificate into various concentrations and degrees in other disciplines within the university.

1.4 Catalog description: The Floristry certificate is meant to enhance majors such as business, horticulture, hospitality management, hotel restaurant management, and interior design. Students who elect the Floristry certificate will develop the skills needed to establish and manage a retail floral business, with emphasis on logistics, resources, marketing and risk management. This certificate will also be an encouragement for related industry to have an educational outlet for themselves and employees.

1.5 CIP Code: 01.0608 Floriculture/**Floristry** Operations and Management.

2. Learning outcomes of the proposed certificate program:

- Have an understanding and awareness of the challenges associated with developing and managing a retail floral, hospitality/event, or interior design business in terms of logistics, resources, marketing, and risk. In addition effective customer relations and effective and ethical marketing strategies for a retail floral business are required.

- Understand the requirements to manage the routine operations of a retail flower shop including visual merchandising, sales, design, delivery, office management and bookkeeping.
- Have an understanding of how to apply mathematical skills common in a floral business.
- Understand and utilize the components necessary to demonstrate the application of elements and principles of floral design.
- Have an understanding of and appreciation for the creative process floral design as a visual art form and understand the process of a lifelong development as a floral artist.
- To gain a knowledge of the identification of, as well as the care of fresh cut flowers and plants following the established Chain of Life for flowers and the recommended cultural practices for plants.

3. Rationale:

3.1 Reason for developing the proposed certificate program:
Floriculture has become a growing industry in the United States. This certificate will provide floristry students the opportunity to focus skills learned in various horticultural and floral design courses toward a career objective, a goal set forth by the CAPE Transformation Committee. Enhancing the ability for individuals in the floral industry to obtain a certificate should increase enrollment in the program, while integrating the skills and topics that are unique and relevant to today's workforce demands.

Gray Data does support a major growth in employment of students obtaining majors, minors, or certificates in floral design or floral shop management. The numbers of many that complete a degree or certificate in a floristry program are hired by local, regional, and national markets that have never advertised job postings which would not be tracked by Gray. Many individuals begin their own wedding, event, or interior design businesses.
In relationship to student demand, according to the American Institute of Floral Design (AIFD) and the Society of American Florist (SAF), research has shown the need for employment of qualified floral designers with the knowledge of floral business management will be on the increase due to a high number of workers retiring. They note that the survival of the floral, hospitality, event planning, and interior design industries relies on graduates with degrees and certificates in floristry.
According to the Bureau of Labor and Statistics in 2019 there was a total of 51,800 floral designers with a median salary of $28,040.00. Related occupations such as meeting, convention, and event planning jobs total are 138,600 with a median income of $50,000.00 and 77, 900 positions in interior design with a median income of $60,990.00

3.2 Relationship of proposed certificate program to other programs now offered by the department:

A Minor in Floristry is now offered by the Department of Agriculture. However, the plan is to delete this minor and continue with a certificate.

3.3 Relationship of the proposed certificate program to certificate programs offered in other departments:

This certificate does not duplicate any other certificate currently offered by the University and would be complimentary to a number of majors. The Certificate in Floristry is meant to enhance other majors at Western Kentucky University such as business, horticulture, hospitality management, hotel/restaurant management, and interior design/fashion merchandising. Students that choose the certificate in floristry will develop the skills needed to establish and manage a retail floral business, with the emphasis on logistics, resources, marketing, and risk management. The course work encompasses design techniques, quantitative skills, and practical applied learning in a lecture laboratory setting. The program prepares students for careers in the floriculture industry as well as in the event and hospitality industries. Conversations with Travis Wilson, the Department Head of Applied and Human Sciences have been ongoing throughout the transformation of pairing his students with the certificate in floristry.

3.4 Projected enrollment in the proposed certificate program:

From the group of students currently enrolled in floral design courses, it is projected that 20 certificates will be declared in the second year of the program and that number should increase by about 10 students annually. More are expected to select this certificate from the population of students enrolled in the suggested major areas of collaboration. These projections are based on a survey of currently enrolled floral design students in which 20% of those polled indicated they would have considered the proposed certificate if the option had been available to them.

Pairing the Certificate in Floristry with other majors at Western Kentucky University such as business, horticulture, hospitality management, hotel/restaurant management, and interior design/fashion merchandising should increase enrollment numbers in the program. For example, hospitality management, hotel/restaurant management/event planning, and interior design/fashion merchandising has an average of 250 potential students.

3.5 Similar certificate programs offered elsewhere in Kentucky and in other states (including programs at benchmark institutions):

According to Gray Data in relationship to local, regional, and national markets for floristry certificate and degree programs, there are no institutions that offer such a program in the WKU market of the local 27 counties in our market as well as the in-state market that encompasses a 140 mile radius.

A survey of internet resources does indicate certificate, majors, and minors in floristry and floral shop management at out-of-state universities and colleges but none in Kentucky. University of Kentucky has in the past offered classes in floral design but no major or minor. The following are some of the institutions that offer a major and/or minor in floristry: City College of San Francisco, Mississippi State University, Ohio State University, Kishwaukee College, Triton College, and Texas A & M University.

3.6 Relationship of the proposed certificate program to the university mission and objectives:
This certificate supports the university mission to (1) produce graduates who are productive , engaged leaders, (2) to provide learning opportunities for constituents, and (3) to foster a high quality of life throughout its region. Further, being entrepreneurial in mindset and focus, the certificate addresses Strategic Goals, #1 (increase students learning) and #4 (improve the quality of life in Kentucky and beyond).

5. Curriculum:

HORT 209	Introduction to Floral Design	3 hours
HORT 309	Advanced Floral Design	3 hours
HORT 330	Wedding Floral Design	3 hours
HORT 340	Greenhouse Crop Production	3 hours
HORT 420	Floral Shop Management	3 hours
	Total Hours	15 hours

6. Budget Implications:

No new faculty will be needed. In the long-term, as the program grows, additional faculty may be needed. Course fees will be attached to the floral design courses to cover supplies and other expenses associated with those classes.

On a two-year cycle some courses will be offered only in alternate years to accommodate course offerings. For example over four semesters the following courses will be offered using the indicated rotation.

HORT 209	Introduction to Floral Design: 4 times (spring, fall)
HORT 309	Advanced Floral Design: 1 time (spring)
HORT 420	Floral Shop Management: 1 time (every other spring)
HORT 330	Wedding Floral Design: 1 time (fall)
HORT 340	Greenhouse Crop Production: 1 time (spring)

7. **Proposed term for implementation:** Fall 2021

8. **Dates of prior committee approvals:**

Department of Agriculture & Food Science	March 4. 2021
OCSE Curriculum Committee	_____
Contact with Office of Academic Affairs	_____
Professional Education Council (if applicable)	_____
Undergraduate Curriculum Committee	_____
University Senate	_____
Board of Regents	_____

University Undergraduate Curriculum Proposal Checklist

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√__ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

The program is proposed as a part of the WKU Comprehensive Academic Program review (CAPE), wherein the committee recommends to explore a certificate program. It was a CAPE recommendation and will remove Floristry Minor and offer a stand-alone credential to students. This has been an on-going process from fall 2019 to present. All discussions have been with Dr. Fred DeGraves, Chair of the Department of Agriculture and Food Science, Dean of Ogden College Dr. Greg Arbuckle, the WKU Provost Office, Travis Wilson, Chair of the Department of Applied Human Sciences , and the faculty of the Department of the Department of Applied Human Sciences.

_√_ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

There will not be any budget implications.

__ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

Does not apply

_√_ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Fred DeGraves
Department Head

3-16-2021
Date

Dean or Designee

Date

(Action Item)

Proposal to Create a New Course:
Ogden College of Science and Engineering
Department/Unit: Mathematics

Section 1: Proponent Contact Information

1.1 Name/Title: Nicholas Fortune, Assistant Professor
1.2 Email address: nicholas.fortune@wku.edu
1.3 Phone #: 5-3651

Section 2: Course Catalog Information

2.1 Course prefix (subject area) and number: MATH 270

2.2 Course CIP code: 27.0101, Mathematics, General

2.3 Course title: The Mathematics of Social Justice

2.4 Abbreviated Course title: MATHEMATICS OF SOCIAL JUSTICE

2.5 Credit hours/Variable credit: 3

2.6 Repeatability: N/A

2.7 Course Term: Is this course intended to span more than a single term?

YES **NO**

2.8 Course Catalog Description: Use of mathematical and statistical tools to examine social injustices on local, regional, national, and global scales.

2.9 Prerequisite/Corequisites/Restrictions: MATH 109, 112, 115, 116, 117, 123, 136, 142, or 183 with a grade of C or better.

2.10 Additional Enrollment Requirements: N/A

2.11 Other Special Course Requirements: N/A

2.12 Grade Type: Standard A-F final grade

2.13 Schedule Type: Lecture/Lab

Section 3: Description of proposed course

3.1 Course Content Summary: Students in MATH 270 will examine social injustices using appropriate mathematical tools. These social injustices include, but are not limited to, basic human needs (food, water, shelter), health care and education, criminal justice and mass incarceration, representation and political power, income and wealth distribution, and embedded within these would be racial/gender/class/etc. inequities. Students will investigate connections and relationships between multiple social injustices at local, regional, national, and global scales.

3.2 Learning Outcomes: Upon successful completion of MATH 270, students should be able to…

- Use mathematics and statistics to analyze social injustices on local and global scales.
- Examine the local and global interrelationships of one or more social injustice through data analysis and basic mathematical modeling.
- Use critical thinking and quantitative reasoning to evaluate the consequences of decision-making on local and global scales.
- Interpret information presented in mathematical and/or statistical forms.
- Make inferences, evaluate assumptions, and assess limitations in the application of mathematical tools to problems in social justice.
- Perform an appropriate mathematical analysis of one or more social injustices at local and global scales and articulate the results and implications.

3.3 Assessment/Evaluation: Students will complete written assignments and projects throughout the semester comprising applications of mathematics to a variety of social injustices. Students will use a variety of mathematical and statistical tools to examine the history, current status, and implications of a selected social injustice on both local and global scales, and will present their findings in a final paper and presentation.

Section 4: Rationale

4.1 Reason for developing this proposed course: "Timelier than ever, teaching mathematics through the lens of social justice will connect content to students' daily lives, fortify their mathematical understanding, and expose them to issues that will make them responsive citizens and leaders in the future" (Berry III et al., 2020). Students in MATH 270 will use their life experiences and knowledge from their previous learning to engage with a diverse set of social justice topics with an eye towards how mathematics can be used to understand those topics and how mathematics can be used to right the wrongs of the social injustices on local and global scales.

4.2 Relationship to similar courses offered by other university departments/units:

- Do any other courses already being offered by other university departments/units share content with this proposed course? **YES** NO

- Are any of the proposed pre/co-requisites for this course offered by another university department/unit? YES **NO**

- If the answer to both questions is NO, simply proceed to item 5.

- If the answer to either of those questions is YES, indicate here who in the affected departments/units was consulted, and the dates of those consultations: Dr. Fortune spoke with Drs. Drummond, Kerby, and McClain from the Department of Sociology & Criminology on Monday, January 25, 2021 and Tuesday, January 26, 2021.

    - WKU offers an interdisciplinary certificate (sociology & political science) in Citizenship and Social Justice. The following courses are part of this social science approach to the study of Social Justice issues: CSJ 200 Introduction to Social Justice, CSJ 301 Seminar in Social Justice, CSJ 435 Reimagining Citizenship, and CSJ 499 Social Justice Capstone. MATH 270 The Mathematics of Social Justice is specifically designed to critically examine social injustices through a mathematics lens.

Section 5: Projected Enrollments/Resources

5.1 How many students per section are expected to enroll in this proposed course? 24 students

5.2 How many sections of this course per academic year will be offered? 1 section

5.3 How many students per academic year are expected to enroll? 24 students per year

5.4 How were these projections calculated? Explain any supporting evidence/data you have for arriving at these projections. The university is regularly looking to offer more Connections courses to meet student demand. Given that and the current societal interest in the topic, we believe there would be demand for the course. We do cap the course at 24 students, though, in order to maintain a healthy amount of student discussion and participation during class sessions.

5.5 Proposed method of staffing: Current Mathematics Department Faculty can teach this course. No staffing changes are needed as the course will run 1 section per year.

5.6 Instructional technology resources: Current resources are adequate.

5.7 Library resources: Will this proposed course require the use of library resources (books, journals, reference materials, audio-visual materials, electronic databases, etc.)? **YES** NO

If YES, was a Library Resources Form submitted to the appropriate collection development librarian prior to consideration at the college curriculum level?

See attached Library Resources Form.

Section 6: Proposed term for implementation: Spring 2022

Section 7: Supplemental/Supporting Documentation: Library Resources Form is attached.

LIBRARY RESOURCES, page 1 of 2
Revised April 2008

Date: 1/27/2021

Proposed Course Name and Number: MATH 270 The Mathematics of Social Justice

Current Library holdings in support of the course are:

__X__ adequate **_____ inadequate***

_____ library resources not needed for course**

*** Inadequate library support will NOT delay approval. If support is adequate, additional materials may still be recommended.**

**** Library is not responsible for supporting course if this option is chosen.**

I. Books/Electronic Resources/Other. Please list key titles, whether or not library already owns; attach course reading list, if any; library materials to be placed on reserve; wish list. If reading list not yet compiled, send asap. Attach additional sheet(s) if needed.

Books WKU Library already owns:

Taylor, A. D. & Pacelli, A. M. (2008). *Mathematics and politics: Strategy, power & proof.* New York, NY: Springer-Verlag New York.

Gutstein, E., & Peterson, B. (2006). *Rethinking mathematics: Teaching social justice by the numbers.* Milwaukee, WI: Rethinking Schools.

Brams, S. J. & Taylor, A. D. (1996). *Fair division: From cake-cutting to dispute resolution.* New York, NY: Cambridge University Press.

Saari, D. (2008). *Disposing dictators, demystifying voting paradoxes: Social choice analysis.* Cambridge, MA: Cambridge University Press.

Saari, D. (2001). *Chaotic elections! A mathematician looks at voting.* Providence, RI: American Mathematical Society.

Karaali, G., & Khadjavi, L. (2019). *Mathematics for social justice : resources for the college classroom.* MAA Press, an imprint of the American Mathematical Society.

Levy, B. S., & Sidel, V. W. (2006). *Social injustice and public health.* New York: Oxford University Press.

White, D., Crespo, S., & Civil, M. (2016). *Cases for teacher educators facilitating conversations about inequities in mathematics classrooms*. Information Age Publishing, Inc.

II. Key journal titles needed/recommended:

Journal for Research in Mathematics Education

Journal of Statistics Education

Journal of Mathematics and Culture

Journal of Urban Mathematics Education

LIBRARY RESOURCES, page 2 of 2

Please submit tentative course proposal to Liaison Librarian before departmental curriculum committee meeting when proposal will be considered. This form will be signed and returned to proponent within three working days.

Find Your Liaison Librarian: http://www.wku.edu/library/dlps/subject_librarians.php

Questions or problems?

Contact Jack Montgomery, jack.montgomery@wku.edu Coordinator, Collection Services
Or UCC Library Representative,
http://www.wku.edu/senate/committees/university_curriculum_committee.php

Faculty Member Proposing Course

Liaison Librarian

Coordinator, Collection Services

University Undergraduate Curriculum Proposal Checklist

Please complete the following checklist to ensure your proposal will proceed smoothly and efficiently. Include the checklist as a cover sheet with your proposal. Proposals without the checklist will be returned to the proponent.

☑ For new or revised programs, courses, or course descriptions, what departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

Dr. Fortune spoke with Drs. Drummond, Kerby, and McClain from the Department of Sociology & Criminology on Monday, January 25, 2021 and Tuesday, January 26, 2021. WKU offers an interdisciplinary certificate (sociology & political science) in Citizenship and Social Justice. The following courses are part of this social science approach to the study of Social Justice issues: CSJ 200 Introduction to Social Justice, CSJ 301 Seminar in Social Justice, CSJ 435 Reimagining Citizenship, and CSJ 499 Social Justice Capstone. MATH 270 The Mathematics of Social Justice is specifically designed to critically examine social injustices through a mathematics lens.

☑ What are the potential budget implications for this proposal? If any additional staffing is required, how will it be funded? If not, how will current staffing accommodate the proposed course/program?

Current Mathematics Department Faculty can teach this course. No staffing changes are needed as the course will run 1 section per year.

☐ If you are proposing a new undergraduate program or changes to an existing undergraduate program, please include a new or updated four-year degree pathway.

☑ Has the proposal been checked carefully for mechanics, grammar, syntax, and clarity?

Bruce Kessler

Digitally signed by Kessler, Bruce
DN: cn=Kessler, Bruce, o=Western Kentucky University, ou=Department of Mathematics, email=bruce.kessler@wku.edu, c=US
Date: 2021.03.16 14:49:21 -05'00'

Department Head

Dean or Designee

3/16/2021

Date

Date