This template is to be used only by programs that have received specific written approval from the Provost’s office to proceed with internal proposal development and review. The proposal template should be completed in full and submitted to the University Provost’s Office [mailto: curriculumplanning@asu.edu ]. It must undergo all internal university review and approval steps including those at the unit, college, and university levels. A program may not be implemented until the Provost’s Office notifies the academic unit that the program may be offered.

### MASTER’S DEGREE PROGRAM

**College/School:** Ira A. Fulton Schools of Engineering  
*Note: Program ownership is coded at the College/School level first and may not be a center, department or division apart from it.*

**Department/Division/School:** School of Sustainable Engineering and the Built Environment  
[CSUSENG]

**Proposing faculty group (if applicable):** N/A

<table>
<thead>
<tr>
<th>Name of proposed degree program:</th>
<th>Master of Science (MS) in Environmental Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed title of major:</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>Master's degree type:</td>
<td>MS - Master of Science</td>
</tr>
</tbody>
</table>

- If Degree Type is “Other”, provide degree type and proposed abbreviation:

<table>
<thead>
<tr>
<th>Is a program fee required?</th>
<th>No, a program fee is not required.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the unit willing and able to implement the program if the fee is denied?</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Requested effective term and year:** Spring 2021  
(The first semester and year for which students may begin applying to the program)

**Delivery method and campus or location options:** select all locations that apply  
- [ ] Downtown
- [ ] Polytechnic
- [x] Tempe
- [ ] Thunderbird
- [ ] West
- [ ] Other: __________________________
- [ ] Both on-campus and [ ] ASU Online* - (check applicable campus(es) from options listed above)
- [ ] ASU Online only (all courses online and managed by ASU Online)

*Note: Once students elect a campus or Online option, students will not be able to move between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online. Please complete the ASU Online Offering form in Curriculum ChangeMaker to begin this request. Prior to completing the online Curriculum ChangeMaker form, please contact EdPlus at asuonline@asu.edu who can provide you with additional information regarding the online request process.

### PROPOSAL CONTACT

**Name:** Treavor Boyer  
**Title:** Associate Professor and Program Chair

**Phone number:** 480-965-7447  
**Email:** thboyer@asu.edu
Please note: Proposals for new degrees also require the review and recommendation of approval from the University Graduate Council, Curriculum and Academic Programs Committee (CAPC), the Academic Senate (2 readings), and the Office of the Provost before they can be put into operation.

The final approval notification will come from the Office of the Provost.

1. PURPOSE AND NATURE OF PROGRAM

   A. Provide a brief program description:

       The MS in Environmental Engineering program provides students who have a background in agricultural, biological, chemical, civil, or environmental engineering or related fields with advanced knowledge that can be applied to address grand challenges facing society including supplying clean water and safe food, designing a future without pollution and recovering valuable resources from waste, and creating healthy and smart cities. The curriculum includes core courses in environmental engineering that span engineering science, process engineering, and quantitative literacy. Elective courses can be structured for depth within one area of environmental engineering or breadth across environmental engineering. Graduates with an MS degree in Environmental Engineering are employed in engineering consulting, private industry, local and federal government, and nongovernmental organizations.

   B. Will concentrations be established under this degree program? ☐ Yes ☒ No

       (Please provide additional concentration information in the curricular structure section – number 7.)

2. PROGRAM NEED

   Explain why the university should offer this program (include data and discussion of the target audience and market).

   The MS degree in Environmental Engineering will complement the new BSE degree in Environmental Engineering that began accepting students in fall 2017. The BSE degree in Environmental Engineering has shown strong enrollment trends with approximately 150 students enrolled in the program as of fall 2019. Undergraduate students in Environmental Engineering have expressed interest in a master's degree based inquiries by students to faculty and the program chair; hence, the proposal for the MS degree in Environmental Engineering. In addition, the MS in Environmental Engineering degree will appeal to students from other engineering majors such as agricultural engineering, biological engineering, chemical engineering, etc. where their engineering background can be applied to environmental problems. Environmental engineers incorporate the principles of chemistry and microbiology with process engineering in order to produce potable water and treat wastewater, remediate contaminated soil and sediment, manage solid and hazardous waste, monitor air quality, and implement air quality control devices. Graduates with a Master’s degree in Environmental Engineering pursue careers in engineering consulting including project management, senior environmental engineer within industry, water project manager, and environmental health and safety director.

3. IMPACT ON OTHER PROGRAMS

Attach any letters of collaboration or support from impacted programs (see checklist sheet). Please submit as a separate document.

See attached for letters of support in Appendix III.

4. PROJECTED ENROLLMENT

How many new students do you anticipate enrolling in this program each year for the next five years?

*Note: The Arizona Board of Regents (ABOR) requires that nine master’s degrees be awarded every three years. Thus, the projected enrollment numbers must account for this ABOR requirement.*

<table>
<thead>
<tr>
<th>5-YEAR PROJECTED ANNUAL ENROLLMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Please utilize the following tabular format</strong></td>
</tr>
<tr>
<td>1st Year</td>
</tr>
<tr>
<td>Number of Students Majoring (Headcount)</td>
</tr>
</tbody>
</table>

5. ACCREDITATION OR LICENSING REQUIREMENTS (if applicable)

Provide the names of the external agencies for accreditation, professional licensing, etc. that guide your curriculum for this program, if any. Describe any requirements for accreditation or licensing.

None

6. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Attach a PDF copy of the assessment plan printed from the University Office of Evaluation and Educational Effectiveness assessment portal demonstrating UOEEE’s approval of your assessment plan for this program. Visit the assessment portal at https://uoeee.asu.edu/assessment-portal or contact uoeee@asu.edu with any questions.

(See Appendix II).
7. CURRICULAR STRUCTURE

A. Curriculum Listing

<table>
<thead>
<tr>
<th>Required Core Courses for the Degree</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prefix and Number</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>CEE 561</td>
<td>Physical-Chemical Treatment of Water and Waste</td>
</tr>
<tr>
<td>CEE 562</td>
<td>Environmental Biochemistry and Waste Treatment</td>
</tr>
<tr>
<td>CEE 563</td>
<td>Environmental Engineering Chemistry</td>
</tr>
<tr>
<td>CEE 567</td>
<td>Environmental Microbiology</td>
</tr>
</tbody>
</table>

**Section sub-total:** 12

Below is a sample list of Elective or Research Courses other courses may be used with approval of the academic unit (as deemed necessary by supervisory committee)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prefix and Number</strong></td>
<td><strong>Course Title</strong></td>
</tr>
<tr>
<td>CEE 506</td>
<td>Life Cycle Assessment for Civil Systems</td>
</tr>
<tr>
<td>CEE 545</td>
<td>Hydrology</td>
</tr>
<tr>
<td>CEE 565</td>
<td>Advanced Environmental Biotechnology</td>
</tr>
<tr>
<td>CEE 566</td>
<td>Water Reuse and Reclamation</td>
</tr>
<tr>
<td>CEE 569</td>
<td>Air Quality Engineering</td>
</tr>
<tr>
<td>CEE 570</td>
<td>Sustainable Environmental Biotechnologies</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Biotransformations</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Carbon Capture</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Carbon Storage</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Critical Analysis in Environ Engin and Science</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Data Synthesis for Environmental Engineers</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Environmental Nanotechnology</td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics: Environmental Organic Pollutants</td>
</tr>
</tbody>
</table>

**Section sub-total:** 6 or 9

<table>
<thead>
<tr>
<th>Culminating Experience(s)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>E.g.</strong> – Capstone course, portfolio, written comprehensive exam, applied project, thesis (must be 6 credit hours with oral defense)</td>
<td></td>
</tr>
<tr>
<td>EVE 593 Applied Project</td>
<td>3</td>
</tr>
<tr>
<td>EVE 599 Thesis</td>
<td>6</td>
</tr>
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</table>

Request to implement a new master's degree program 11-6-17
PROPOSAL TO ESTABLISH A NEW MASTER'S DEGREE PROGRAM

<table>
<thead>
<tr>
<th>Other Requirements (choose two courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other courses may be substituted with approval of the academic unit.</td>
</tr>
</tbody>
</table>

E.g. – internships, clinical requirements, field studies, foreign language exam as applicable

<table>
<thead>
<tr>
<th>Course Prefix(es):</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 560 Soil and Groundwater Remediation</td>
<td>3</td>
</tr>
<tr>
<td>CEE 564 Contaminant Fate and Transport</td>
<td>3</td>
</tr>
<tr>
<td>EVE 568 Environmental Risk Assessment</td>
<td>3</td>
</tr>
<tr>
<td>EVE 571 Water Quality Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>

Section sub-total: 6

Total Credit Hours: 30

1. List all required core courses and total credit hours for the core (required courses other than internships, thesis, capstone course, etc.).
2. Omnibus numbered courses cannot be used as core courses.
3. Permanent numbers must be requested by submitting a course proposal to Curriculum ChangeMaker for approval.

B. Will concentrations be established under this degree program? ☐ Yes ☒ No

8. COURSES

A. Course Prefix(es): Provide the following information for the proposed graduate program.

i. Will a new course prefix(es) be required for this degree program?

☐ Yes ☒ No

If yes, complete the Course Prefixes / Subjects Form for each new prefix and submit it as part of this proposal submission. Form is located under the courses tab.

B. New Courses Required for Proposed Degree Program: Provide course prefix, number, title, credit hours and brief description for any new courses required for this degree program.

**EVE 568 Environmental Risk Assessment, 3 credits**
Description: Students will learn about established frameworks for analyzing risks in engineering and environmental health applications including microbial, chemical, and engineering failure risks. Students will be presented fundamental probability and statistics concepts needed to complete a risk assessment including curve-fitting, Monte Carlo analysis, sensitivity analysis, and techniques for interpreting both sparse and large datasets. Additionally, principles of toxicology and microbiology will be summarized to inform case study projects. Risk perception, management, and communication approaches will be explored for applications to multiple scenarios including water and wastewater treatment, indoor air quality, and failure analysis.

**EVE 571 Water Quality Modeling, 3 credits**
Description: This course is focused on identifying point and nonpoint source pollution in urban and agricultural watersheds, modeling the fate and transport of this pollution in watersheds, and evaluating strategies for their mitigation. Additionally, this course will touch on water quality standards and the U.S. regulations governing the pollution sources and control strategies. This course will focus on nutrient and sediment pollution of surface waters, but will also introduce these concepts for other pollutants and groundwater systems.

9. FACULTY, STAFF, AND RESOURCE REQUIREMENTS
A. Faculty
   i. Current Faculty – Complete the table below for all current faculty members who will teach in the program. If listing faculty from an academic unit outside of the one proposing the degree, please provide a support statement from that unit.

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Highest Degree</th>
<th>Area of Specialization/Expertise</th>
<th>Estimated Level of Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morteza Abbaszadegan</td>
<td>Professor</td>
<td>PhD</td>
<td>Public health microbiology</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Treavor Boyer</td>
<td>Associate Professor</td>
<td>PhD</td>
<td>Water quality and treatment</td>
<td>Program Chair</td>
</tr>
<tr>
<td>Otakuye Conroy-Ben</td>
<td>Assistant Professor</td>
<td>PhD</td>
<td>Antibiotic resistance, endocrine disruption</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Anca Delgado</td>
<td>Assistant Professor</td>
<td>PhD</td>
<td>Environmental microbiology, biotechnology</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Peter Fox</td>
<td>Professor</td>
<td>PhD</td>
<td>Water reuse</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Matt Fraser</td>
<td>Professor</td>
<td>PhD</td>
<td>Air quality</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Rolf Halden</td>
<td>Professor</td>
<td>PhD</td>
<td>Public health engineering</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Kerry Hamilton</td>
<td>Assistant Professor</td>
<td>PhD</td>
<td>Risk assessment, public health microbiology</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Rosa Krajmalnik-Brown</td>
<td>Professor</td>
<td>PhD</td>
<td>Environmental microbiology, microbial ecology</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Rebecca Muenich</td>
<td>Assistant Professor</td>
<td>PhD</td>
<td>Watershed and environmental modeling</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>François Perreault</td>
<td>Assistant Professor</td>
<td>PhD</td>
<td>Chemistry, microbiology, nanotechnology</td>
<td>Teach elective courses</td>
</tr>
<tr>
<td>Bruce Rittmann</td>
<td>Professor</td>
<td>PhD</td>
<td>Environmental biotechnology</td>
<td>Teach core and elective courses</td>
</tr>
<tr>
<td>Paul Westerhoff</td>
<td>Professor</td>
<td>PhD</td>
<td>Water quality and treatment</td>
<td>Teach core and elective courses</td>
</tr>
</tbody>
</table>

   ii. New Faculty - Describe the new faculty hiring needed during the next three years to sustain the program. List the anticipated hiring schedule and financial sources for supporting the addition of these faculty members.

   The Environmental Engineering program includes 13 faculty with expertise across the main areas of environmental engineering. Two searches, one on environmental process engineering and the other on public health engineering have been approved, which will add further depth to the environmental engineering faculty.

   iii. Administration of the program - Explain how the program will be administered for the purposes of admissions, advising, course offerings, etc. Discuss the available staff support.

   The MS in Environmental Engineering will be administered within the School of Sustainable Engineering and the Built Environment using existing academic and advising staff. Treavor Boyer will serve as Program Chair; he is currently Program Chair for the BSE degree in Environmental Engineering.

B. Resource requirements needed to launch and sustain the program: Describe any new resources required for this program’s success such as new staff, new facilities, new library resources, new technology resources, etc. No new resources are needed to launch the program.
1. **Proposed title of major:** Environmental Engineering

2. **Marketing description** *(Optional - 50 words maximum. The marketing description should not repeat content found in the program description.)*

   Environmental engineers design systems that provide innovative and sustainable solutions to grand challenges facing society, such as safe and reliable drinking water, clean air, sustainable food supply, renewable energy, recycling, and environmental protection. Environmental engineers study nanotechnology, biotechnology, and sustainable engineering.

3. **Provide a brief program description** *(Catalog type (i.e. will appear in Degree Search) – no more than 150 words. Do not include any admission or curriculum information)*

   The MS in environmental engineering provides students who have a background in agricultural, biological, chemical, civil, or environmental engineering or related fields with advanced knowledge that can be applied to address grand challenges facing society including supplying clean water and safe food, designing a future without pollution and recovering valuable resources from waste, and creating healthy and smart cities. Graduates with an MS degree in environmental engineering are employed in engineering consulting, private industry, local and federal government, and nongovernmental organizations.

4. **Delivery/Campus Information Options:**
   - On-campus only (ground courses and iCourses)

5. **Campus(es) where program will be offered:**
   - ASU Online curriculum consists of courses that have no face-to-face content. iCourses are online courses for students in on-campus programs. iCourses may be included in a program, but may not comprise the entirety of a program. On-campus programs must have some face-to-face content.
   - Note: Office of the Provost approval is needed for ASU Online delivery option.

   - Other campus or location options (please select all that apply):
     - ASU Online only (all courses online and managed by ASU Online)
     - Downtown Phoenix
     - Polytechnic
     - Tempe
     - West
     - Other: 

   - Both on-campus and ASU Online* - (check applicable campus(es) from options listed above)

   Note: Once students elect a campus or Online option, students will not be able to move between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online. Please complete the ASU Online Offering form in Curriculum ChangeMaker to begin this request. Prior to completing the online Curriculum ChangeMaker form, please contact EdPlus at asuonline@asu.edu who can provide you with additional information regarding the online request process.

6. **Admission Requirements:**
   - Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

   - Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in environmental engineering, chemical engineering, civil engineering, agricultural engineering, biological engineering, or related field, from a regionally accredited institution.

   - Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program, or applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in an applicable master's degree program.
Applicants are required to submit:
1. graduate admission application and application fee
2. official transcripts
3. GRE scores
4. three letters of recommendation
5. proof of English proficiency

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless of current residency.

Those seeking a teaching assistantship must demonstrate proficiency in spoken English with a score of 55 or better on the Speaking Proficiency English Assessment Kit or a score of 26 on the speaking portion of the TOEFL.

The student’s credentials for admission are evaluated by the Graduate Program Chair. A student whose undergraduate degree is not in environmental engineering or related field is required to take appropriate undergraduate courses as deficiency courses to establish a base of knowledge in the discipline. Deficiencies for admission to the graduate degree program are specified at the time of admission.

Prospective students should note the following GRE score requirements need to be met for consideration for admission: minimum score in the quantitative section of 155 and minimum combined score for the quantitative and verbal sections of 301.

Applicants are strongly encouraged to submit a professional resume and personal statement.

7. Application Review Terms (if applicable session):
Indicate the first term and year in which applications will be opened for admission. Applications will be accepted on a rolling basis after that time.

Note: It is the academic unit’s responsibility to display program deadline dates on their website.

<table>
<thead>
<tr>
<th>Terms</th>
<th>Years</th>
<th>University Late Fee Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒ Fall (regular)</td>
<td>(year): 2021 (year):</td>
<td>July 1st October 1st</td>
</tr>
<tr>
<td>☐ Session B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☒ Spring (regular)</td>
<td>(year):2021 (year):</td>
<td>December 1st February 8th</td>
</tr>
<tr>
<td>☐ Session B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Summer (regular)</td>
<td>(year):</td>
<td>May 14th</td>
</tr>
<tr>
<td>☐ Summer B</td>
<td></td>
<td>May 14th</td>
</tr>
</tbody>
</table>

Note: Session B is only available for approved online programs.

Program admission deadlines website address: https://ssebe.engineering.asu.edu/graduate/
8. **Curricular Requirements:**

**Curricular Structure Breakdown for the Academic Catalog:**
*(To be completed by the Graduate College)*

- 30 credit hours, a written comprehensive exam and a thesis, or
- 30 credit hours, a written comprehensive exam, and the required applied project course (EVE 593)

**Required Core (12 credit hours)**
- CEE 561 Physical-Chemical Treatment of Water and Waste (3)
- CEE 562 Environmental Biochemistry and Waste Treatment (3)
- CEE 563 Environmental Engineering Chemistry (3)
- CEE 567 Environmental Microbiology (3)

**Electives or Research (6 or 9 credit hours)**

**Other Requirements (6 credit hours)**
- CEE 560 Soil and Groundwater Remediation (3)
- CEE 564 Contaminant Fate and Transport (3)
- EVE 568 Environmental Risk Assessment (3)
- EVE 571 Water Quality Modeling (3)

**Culminating Experience (3 or 6 credit hours)**
- EVE 593 Applied Project (3) or
- EVE 599 Thesis (6)

**Additional Curriculum Information**
Students complete a thesis or applied project as the culminating experience. Regardless of the culminating experience chosen, all students in the program complete six credit hours from the other requirements course list. Other requirement coursework may be substituted with approval of the academic unit.

9. **Comprehensive Exams:**

**Master's Comprehensive Exam (when applicable), please select from the appropriate option.**

A written comprehensive exam is required.

10. **Allow 400-level courses:**

☐ Yes  ☒ No

*Note: No more than 6 credit hours of 400-level coursework may be included on a graduate student plan of study.*

11. **Committee:**

- Required number of thesis committee members (must be at least 3 including chair or co-chairs): 3
- Required number of non-thesis option committee members (must be a minimum of one): 1

12. **Keywords:** List all keywords that could be used to search for this program. Keywords should be specific to the proposed program – limit 10 keywords.

- Environmental health engineering
- Water
- Resources
- Agricultural
13. Area(s) of Interest

A. Select one (1) primary area of interest from the list below that applies to this program.

- Architecture & Construction
- Arts
- Business
- Communication & Media
- Engineering & Technology
- Entrepreneurship
- Health & Wellness
- Humanities
- Interdisciplinary Studies
- Law & Justice
- Mathematics
- Psychology
- STEM
- Science
- Social and Behavioral Sciences
- Sustainability

B. Select one (1) secondary area of interest from the list below that applies to this program.

- Architecture & Construction
- Arts
- Business
- Communications & Media
- Education & Teaching
- Engineering & Technology
- Entrepreneurship
- Health & Wellness
- Humanities
- Interdisciplinary Studies
- Law & Justice
- Mathematics
- Psychology
- STEM
- Science
- Social and Behavioral Sciences
- Sustainability

14. Contact and Support Information:

<table>
<thead>
<tr>
<th>Office Location - Building Code &amp; Room: (Search ASU map)</th>
<th>CAVC 437</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Telephone Number: (may not be an individual's number)</td>
<td>480-965-0595</td>
</tr>
<tr>
<td>Program Email Address: (may not be an individual's email)</td>
<td><a href="mailto:sebe.advising@asu.edu">sebe.advising@asu.edu</a></td>
</tr>
<tr>
<td>Program Website Address: (if one is not yet created, use unit website until one can be established)</td>
<td><a href="https://ssebe.engineering.asu.edu/graduate/">https://ssebe.engineering.asu.edu/graduate/</a></td>
</tr>
<tr>
<td>Program Director (Name):</td>
<td>Treavor Boyer</td>
</tr>
<tr>
<td>Program Director (ASURITE):</td>
<td>thboyer</td>
</tr>
<tr>
<td>Program Support Staff (Name):</td>
<td>Mike Sever</td>
</tr>
<tr>
<td>Program Support Staff (ASURITE):</td>
<td>msever</td>
</tr>
<tr>
<td>Admissions Contact (Name):</td>
<td>Melanie Ford Bishop</td>
</tr>
<tr>
<td>Admissions Contact (ASURITE):</td>
<td>mcford2</td>
</tr>
</tbody>
</table>

15. Application and iPOS Recommendations: List the Faculty and Staff who will input admission/POS recommendations to Gportal and indicate their approval for Admissions and/or POS:

<table>
<thead>
<tr>
<th>NAME</th>
<th>ASURITE</th>
<th>ADMSN</th>
<th>POS</th>
</tr>
</thead>
</table>

Request to implement a new master's degree program 11-6-17 Page 10 of 34
<table>
<thead>
<tr>
<th>Name</th>
<th>Username</th>
<th>Signature</th>
<th>Approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mike Sever</td>
<td>msever</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Melanie Ford Bishop</td>
<td>mcford2</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
### Assessment Plan

**University Office of Evaluation and Educational Effectiveness**

**Academic Program Assessment Plan**

**MS in Environmental Engineering**

**Status:** UOEEE Provisional Approval

**Comments:** UOEEE provisionally approved.

<table>
<thead>
<tr>
<th>Element</th>
<th>Outcome</th>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP_2Goal</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td><strong>1</strong></td>
<td><strong>0</strong></td>
<td>Graduates of the MS Environmental Engineering program will be able to demonstrate understanding of complex environmental problems</td>
</tr>
<tr>
<td>Plan_2Concepts</td>
<td>1</td>
<td></td>
<td>Students will demonstrate understanding of fundamental concepts related to physical, chemical, and biological processes</td>
</tr>
<tr>
<td>Plan_3Competencies</td>
<td>1</td>
<td></td>
<td>Environmental chemistry, environmental microbiology, and quantitative literacy including data analysis.</td>
</tr>
<tr>
<td>AP_1Process</td>
<td>1</td>
<td>1</td>
<td>Use of course exam and comprehensive program exam (or Applied Project report or Master’s thesis) to demonstrate understanding of fundamental concepts related to physical, chemical, and biological processes.</td>
</tr>
<tr>
<td>Measure</td>
<td>1</td>
<td>1</td>
<td>Written comprehensive examination for program, Applied Project report, or Master’s thesis to occur in the terminal semester that demonstrates understanding of fundamental concepts related to physical, chemical, and biological processes.</td>
</tr>
<tr>
<td>PC</td>
<td>1</td>
<td>1</td>
<td>70% of students will perform at satisfactory or better on Measure 1.1; scored using rubric developed for concepts and competencies in Outcome 1.</td>
</tr>
<tr>
<td>Measure</td>
<td>1</td>
<td>2</td>
<td>Course exam in CEE 560, CEE 561, or CEE 562 that tests understanding of fundamental concepts related to physical, chemical, and biological processes.</td>
</tr>
<tr>
<td>PC</td>
<td>1</td>
<td>2</td>
<td>70% of students will perform at satisfactory or better on Measure 1.2; scored using rubric developed for concepts and competencies in Outcome 1.</td>
</tr>
</tbody>
</table>
PROPOSAL TO ESTABLISH A NEW MASTER'S DEGREE PROGRAM

<table>
<thead>
<tr>
<th>Outcome</th>
<th>2</th>
<th>0</th>
<th>Graduates of the MS Environmental Engineering program will be able to effectively communicate environmental problems and engineering solutions to technical and non-technical audiences.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan_2Concepts</td>
<td>2</td>
<td></td>
<td>Students will demonstrate the ability to communicate environmental engineering concepts that are technically correct and appropriate for the audience.</td>
</tr>
<tr>
<td>Plan_3Competencies</td>
<td>2</td>
<td></td>
<td>Technical writing, oral communication, and visualizing information and data.</td>
</tr>
<tr>
<td>AP_1Process</td>
<td>2</td>
<td>1</td>
<td>Use or course presentation and course technical paper (or Applied Project report or master’s thesis) to demonstrate ability to communicate concepts that are technically correct.</td>
</tr>
<tr>
<td>Measure</td>
<td>2</td>
<td>1</td>
<td>Presentation in CEE 560, CEE 561, CEE 562, Applied Project report, or Master’s thesis that demonstrates effective oral communication and data visualization.</td>
</tr>
<tr>
<td>PC</td>
<td>2</td>
<td>1</td>
<td>70% of students will perform at satisfactory or better on Measure 2.1; scored using rubric developed for concepts and competencies in Outcome 2.</td>
</tr>
<tr>
<td>Measure</td>
<td>2</td>
<td>2</td>
<td>Technical paper in CEE 560, CEE 561, CEE 562, Applied Project report, or Master’s thesis that demonstrates effective technical writing and data visualization.</td>
</tr>
<tr>
<td>PC</td>
<td>2</td>
<td>2</td>
<td>70% of students will perform at satisfactory or better on Measure 2.2; scored using rubric developed for concepts and competencies in Outcome 2.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcome</th>
<th>3</th>
<th>0</th>
<th>Graduates of the MS Environmental Engineering program will be employed in Civil, Environmental, or Sustainable Engineering field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan_2Concepts</td>
<td>3</td>
<td></td>
<td>Students will demonstrate the ability to communicate on a professional and personal level to secure desired position in environmental engineering or related field</td>
</tr>
<tr>
<td>Plan_3Competencies</td>
<td>3</td>
<td></td>
<td>Breadth of technical knowledge in environmental engineering, ability to propose engineering solutions to environmental problems, and ability to communicate ideas and solutions</td>
</tr>
<tr>
<td>AP_1Process</td>
<td>3</td>
<td>1</td>
<td>Use of questionnaires to track student interaction with Industry and potential employers, and alumni job placement.</td>
</tr>
<tr>
<td>Measure</td>
<td>3</td>
<td>1</td>
<td>Employment questionnaire in terminal semester as part of comprehensive examination for program, Applied Project, or Thesis to track student interactions with Industry and potential employers</td>
</tr>
<tr>
<td>PC</td>
<td>3</td>
<td>1</td>
<td>70% of students will have interacted with industry and potential employers through conferences, interviews, and other industry events in Environmental Engineering or related fields.</td>
</tr>
<tr>
<td>Measure</td>
<td>3</td>
<td>2</td>
<td>Employment questionnaire to alumni from the program 3 to 5 years after graduation.</td>
</tr>
<tr>
<td>PC</td>
<td>3</td>
<td>2</td>
<td>70% of students that graduate will have secured positions in Environmental Engineering or related fields.</td>
</tr>
</tbody>
</table>

If you have questions, please e-mail assessment@asu.edu or call UOEPE at (480) 727-1731.
Hello,

Attached is the proposal to establish the following:

**Ira A. Fulton Schools of Engineering**

*School of Sustainable Engineering and the Built Environment*

Proposal to establish a graduate program

**MS in Environmental Engineering**

Best,

*Sergio Quiros*

Specialist Senior, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu
Re: MS degree Program in Environmental Engineering (EVE)

As Graduate Program Chair of the School of Sustainable Engineering and Built Environment, I am in complete support of creating a new Master of Science degree program in Environmental Engineering. This has been a mature program at Arizona State University as evidenced by its top 20 ranking by US News. Having a separate degree program will allow us to advertise and recruit more effectively which should further enhance our rankings and stature.

Sincerely,

Peter Fox

Peter Fox, Ph.D.

- Professor and Graduate Program Chair -
Hi Treavor:

I have read your proposal for a new M.S. in Environmental Engineering and am in complete support of it. The degree will be a valuable opportunity for students with an undergraduate degree in environmental engineering, but also for students from other disciplines that wish to focus on environmental problems.

The M.S. in Environmental Engineering complements, but is not duplicative of the M.S. in Environmental & Resource Management degree, which has a stronger focus on legal and policy issues.

I look forward to working with you in any way I can to help you implement this degree.

Best regards,
Larry

Larry Olson, Ph.D.
Associate Professor
Program Chair, Environmental & Resource Management
Senior Sustainability Scientist
The Polytechnic School
Ira A. Fulton Schools of Engineering
Arizona State University
480-727-1499
Larry.Olson@asu.edu

Hi Larry,

I am emailing you 2 requests in separate emails.

In this email I am requesting your support for new MS degree in Environmental Engineering. The new program application is attached. Please let me know if you would like to discuss.

Thank you,
Treavor
PROPOSAL TO ESTABLISH A NEW MASTER'S DEGREE PROGRAM

Treavor H. Boyer, Ph.D.
Associate Professor of Environmental Engineering
Program Chair, Environmental Engineering
School of Sustainable Engineering and the Built Environment
Arizona State University
Office: ISTB4, Room 361
Phone: 480-965-7447
Email: thboyer@asu.edu
Mailing: PO Box 873005, Tempe, AZ 85287-3005
Google Scholar: http://scholar.google.com/citations?user=vhn_98oAAAAJ
Twitter: @BoyerLabASU

Request to implement a new master's degree program
Herberger Institute for Design and the Arts

From: Kathryn Maxwell
To: Sergio Quiros
Cc: James Collofello, Jeremy Helm
Subject: Re: IFSE Establishment - MS in Environmental Engineering (GC Review)
Date: Wednesday, April 8, 2020 4:12:20 PM

Hello,

The Herberger Institute of Design and the Arts has no reservation in supporting the proposed MS in Environmental Engineering.

Good luck with the new degree and stay healthy.

Regards,

Kathryn

Kathryn Maxwell
Associate Dean for Student Success
Professor of Printmaking

ASU Herberger Institute for Design and the Arts
Dixie Gammage Hall, Rm. 132
PO Box 872102
Tempe, AZ 85287-2102
p. 480.965.0050
f. 480.727.6529

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Friday, April 3, 2020 at 8:54 AM
To: kathrynmm <K.Maxwell@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering (GC Review)

Sent on behalf of Dr. James S. Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim
James S. Collofello
Vice Dean for Academic and Student Affairs
Dear Jim,

The College does not see any impact on our programs and courses.

The one comment I’d like to make is that there is no mention of electives outside of ENG that would suit training for this program. For instance, we think that graduates in environmental engineering would greatly benefit from GIS that are available in SSUP.

Best,
Fabio

Fabio Augusto Milner, PhD
Associate Dean of Graduate Initiatives
Assistant Director, Simon Levin Center
The College of Liberal Arts and Sciences
Director of Mathematics for STEM Education
School of Mathematical and Statistical Sciences
Arizona State University

From: Sergio Quiros <sergio.quiros@asu.edu>
Date: Friday, April 3, 2020 at 08:55
To: Fabio Milner <milner@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELMM@asu.edu>
Subject: ISEF Establishment - MS in Environmental Engineering
Resent-From: <milner@asu.edu>

Sent on behalf of Dr. James S. Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for our
proposed **MS in Environmental Engineering**. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros
Sent: Tuesday, March 17, 2020 4:16 PM
To: Curriculum Planning <CurriculumPlanning@exchange.asu.edu>
Cc: Michael Sever <Mike.Sever@asu.edu>; Jeremy Helm <Jeremy.Helm@asu.edu>; Treavor Boyer <tboyer@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering

Hello,

Attached is the proposal to establish the following:

**Ira A. Fulton Schools of Engineering**
**School of Sustainable Engineering and the Built Environment**
Proposal to establish a graduate program
**MS in Environmental Engineering**

Best,

Sergio Quiros
Specialist, Academic and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-6109
Phone: 480/727-2770
Fax: 480/727-2779
Email: Sergio.Quiros@asu.edu
Dear Sergio,

SOS is happy to support the proposal for the new MS in Environmental Engineering.

Christopher Boons
Dean and Professor
School of Sustainability
Arizona State University
P.O. Box 875602 | Tempe, Arizona | 85287-5602
PH: 480-965-2336 | Mail: 480-965-2975
Executive Assistant: Lorraine.Protocollo@asu.edu

SchoolOfSustainability.asu.edu
The School of Sustainability embraces ASU’s mission as being a comprehensive public research university, measured not by whom it excludes, but rather by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves. We support and foster a culture of inclusiveness, tolerance, and respect that promotes equal opportunity and diversity among SOS faculty, staff, and students and through our engagement with diverse communities within and beyond the University.

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Sent: Friday, April 17, 2020 11:15 AM
To: Christopher Boons <Christopher.G.Boone@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: RE: IFSE Establishment - MS in Environmental Engineering

Hello.

The Graduate College has requested that we provide your feedback/support regarding our proposed MS in Environmental Engineering before the proposal can move forward in the university’s approval and review process. Let us know if you have any questions or concerns.

Thank you,

Sergio Quiros
Specialist Senior, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8199
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

From: Sergio Quiros
Sent: Friday, April 3, 2020 6:55 AM
To: Christopher Boons <Christopher.G.Boone@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: FW: IFSE Establishment - MS in Environmental Engineering
Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim
James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros
Sent: Tuesday, March 17, 2020 4:16 PM
To: Curriculum Planning <CurriculumPlanning@exchange.asu.edu>
Cc: Michael Sever <Mike.Sever@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Trevor Boyer <tboyer@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering

Hello,

Attached is the proposal to establish the following:

Ira A. Fulton Schools of Engineering
School of Sustainable Engineering and the Built Environment
Proposal to establish a graduate program
MS in Environmental Engineering

Best,

Sergio Quiros
Specialist Senior, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-6309
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu
New College of Interdisciplinary Arts and Sciences

From: Stacey Kimbell <kimbell@asu.edu>
Sent: Tuesday, April 28, 2020 9:11 AM
To: Sergio Quiros <Sergio.Quiros@asu.edu>
Subject: FW: IFSE Establishment - MS in Environmental Engineering

Hi Sergio,

New College is pleased to support the MS in Environmental Engineering. Please see the statement of support below from New College Associate Dean Lara Ferry.

Sincerely,
Stacey

Stacey Kimbell
Executive Administrative Support Specialist and Curriculum Coordinator
New College | Arizona State University
P.O. Box 37100, M/C 1251
Phoenix, AZ 85069-7100

Students: Please include your 10-digit ASU ID number in all email communications.

Confidentiality Notice: This e-mail message, including attachments, is for the sole use of the intended recipient and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

From: Lara Ferry
Sent: Tuesday, April 28, 2020 9:19 AM
To: Stacey Kimbell <kimbell@asu.edu>
Subject: Re: IFSE Establishment - MS in Environmental Engineering

Hi Stacey,

MNS is happy to support the degree.

Dr. Lara Ferry (PhD)
Professor, Chair/Interim
President’s Professor
Interim Director, School of Mathematical and Natural Sciences
Associate Dean for Research and Strategic Initiatives, New College of Interdisciplinary Arts and Sciences
Arizona State University

Shipping Address (packages): 4701 W. Thunderbird Rd • FAB 3rd floor • Glendale, AZ 85308-4908
Mailing Address (letters): PO Box 37100, MC 1251 • Phoenix, AZ 85069-7100

p: 602.543.2817
e-mail: lara.ferry@asu.edu
web: monohboc.asu.edu
Twitter: @laferry

Come see what's New in New College

Request to implement a new master’s degree program 11-6-17 Page 23 of 34
Good morning Lara,

Please see the request for a statement of support for Fulton’s MS in Environmental Engineering. Please advise.

Thanks!
Stacey

From: Sergio Quiros
Sent: Friday, April 17, 2020 11:20 AM
To: Patricia Friedrich <Patricia.Friedrich@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: RE: IFSE Establishment - MS in Environmental Engineering

Hello,

The Graduate College has requested that we provide your feedback/support regarding our proposed MS in Environmental Engineering before the proposal can move forward in the university’s approval and review process. Let us know if you have any questions or concerns.

Thank you,

Sergio Y. Quiros
Specialist, Academic and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-3778
Email: Sergio.Quiros@asu.edu

From: Sergio Quiros
Sent: Friday, April 3, 2020 8:55 AM
To: Patricia Friedrich <Patricia.Friedrich@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering
Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros
Sent: Tuesday, March 17, 2020 4:16 PM
To: Curriculum Planning <CurriculumPlanning@exchange.asu.edu>
Cc: Michael Sever <Mike.Sever@asu.edu>; Jeremy Helm <JEREMY.HELM@asu.edu>; Treavor Boyer <tboyer@asu.edu>
Subject: IFSE Establishment -MS in Environmental Engineering

Hello,

Attached is the proposal to establish the following:

Ira A. Fulton Schools of Engineering
School of Sustainable Engineering and the Built Environment
Proposal to establish a graduate program
MS in Environmental Engineering

Best,

Sergio Quiros
Specialist Senior, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480/727-9770
Email: Sergio.Quiros@asu.edu
Sergio, Jim, and Jeremy,

CISA is happy to support Fulton’s proposal for an MS in Environmental Engineering. It will have no discernible impact on any master’s degree in CISA.

Please let me know if CISA can provide other forms of support when you launch the degree.

Be safe.

Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Integrative Sciences and Arts
Arizona State University
Mail Code: 2780
7271 E Sonoran Arroyo Mall
Mesa, AZ 85212-6415
P: 480-727-1415

Sent on behalf of Dr. James S. Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

jim
James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University
Dear Sergio,

Thank you for sending these documents for our consideration and feedback.

The College of Health Solutions has reviewed the proposal to establish an MS in Environmental Engineering, and we see no overlap or negative impact on our degree programs.

You have our support to offer the proposed program.

Best wishes,
Julie

---

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Friday, April 17, 2020 at 11:20 AM
To: Julie Liss <JULIE.LISS@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HEL@asu.edu>
Subject: RE: IFSE Establishment - MS in Environmental Engineering

Hello,

The Graduate College has requested that we provide your feedback/support regarding our proposed MS in Environmental Engineering before the proposal can move forward in the university’s approval and review process. Let us know if you have any questions or concerns.

Thank you,

Sergio Quiros
Specialist, Senior, Academic, and Student Affairs
K. A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8209
Phone: 480/727-5770
Email: Sergio.Quiros@asu.edu

---

From: Sergio Quiros
Sent: Friday, April 3, 2020 8:55 AM
To: Julie Liss <JULIE.LISS@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HEL@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering
Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

J.M.
James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros
Sent: Tuesday, March 17, 2020 4:16 PM
To: Curriculum Planning <CurriculumPlanning@exchange.asu.edu>
Cc: Michael Sever <Mike.Sever@asu.edu>; Jeremy Helm <Jeremy.Helm@asu.edu>; Trevor Boyer <Trevor.Boyer@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering

Hello,

Attached is the proposal to establish the following:

Ira A. Fulton Schools of Engineering
School of Sustainable Engineering and the Built Environment
Proposal to establish a graduate program
MS in Environmental Engineering

Best,

Sergio Q. Quiros
Specialist, Student, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8109
Phone: 480-727-5770
Email: Sergio.Quiros@asu.edu
Apologies for the delay. While I have no objections to the degree program in terms of any overlap or conflict with SIFIS programs, it seems a shame that the curriculum does not include the opportunity for students to engage in the study of policy, regulation and risk management and communication.

I cc my associate director for academic programs James Wetmore in case you might want to explore such topics in collaboration with SIFIS and our master’s curriculum in Science and Technology Policy (face to face) and Public Interest Technology (online).

David H. Guston
Foundation Professor
Director, School for the Future of Innovation in Society
Arizona State University

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Friday, April 17, 2020 at 11:21 AM
To: David Guston <David.Guston@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: RE: IFSE Establishment - MS in Environmental Engineering

Hello,

The Graduate College has requested that we provide your feedback/support regarding our proposed MS in Environmental Engineering before the proposal can move forward in the university’s approval and review process. Let us know if you have any questions or concerns.

Thank you,

Sergio Quiros
Specialist Senior, Academic, and Student Affairs
In A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-6069
Phone: 480/727-5779
Email: Sergio.Quiros@asu.edu

From: Sergio Quiros
Sent: Friday, April 3, 2020 8:55 AM
To: David Guston <David.Guston@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELM@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering
Hello,

I am writing to request an impact/supplement letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim
James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University

From: Sergio Quiros
Sent: Tuesday, March 17, 2020 4:16 PM
To: Curriculum Planning <CurriculumPlanning@exchange.asu.edu>
Cc: Michael Sever <Mike.Sever@asu.edu>; Jeremy Helm <Jeremy.Helm@asu.edu>; Treavor Boyer <Treavor.Boyer@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering

Hello,

Attached is the proposal to establish the following:

Ira A. Fulton Schools of Engineering
School of Sustainable Engineering and the Built Environment
Proposal to establish a graduate program
MS in Environmental Engineering

Best,

Sergio Quiros
Senior Associate Dean, Academic, and Student Affairs
Ira A. Fulton Schools of Engineering
Arizona State University
Tempe, AZ 85287-8209
Phone: 480/727-8770
Email: Sergio.Quiros@asu.edu
Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim
James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Ira A. Fulton Schools of Engineering
Arizona State University
From: Amy Hillman (DEAN) <AMY.HILLMAN@asu.edu>
Sent: Friday, April 3, 2020 9:57 AM
To: Sergio Quiros <Sergio.Quiros@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>; Jeremy Helm <JEREMY.HELML@asu.edu>
Subject: Re: IFSE Establishment - MS in Environmental Engineering

Hello Jim,

The W. P. Carey School of Business has no objection to FSE’s creation of a MS in Environmental Engineering.

Amy

Amy Hillman, PhD
Dean
Charles J. Robel Dean’s Chair
W. P. Carey School of Business
amy.hillman@asu.edu | Ph: 480.965.3402

From: Sergio Quiros <Sergio.Quiros@asu.edu>
Date: Friday, April 3, 2020 at 8:54 AM
To: Amy Hillman <AMY.HILLMAN@asu.edu>
Cc: James Collofello <JAMES.COLLOFELLO@asu.edu>, Jeremy Helm <JEREMY.HELML@asu.edu>
Subject: IFSE Establishment - MS in Environmental Engineering

Sent on behalf of Dr. James S. Collofello

Hello,

I am writing to request an impact/support letter (email will suffice) for our proposed MS in Environmental Engineering. This degree program is offered by the School of Sustainable Engineering and the Built Environment. Please let me know if you have any questions or concerns.

Jim

James S. Collofello
Vice Dean for Academic and Student Affairs
Professor of Computer Science and Engineering
School of Computing Informatics and Decision Systems Engineering
Good Morning,

The Watts College of Public Service and Community Solutions is supportive of your proposed MS in Environmental Engineering.

If there is anything else I can assist with please do not hesitate to let me know.

Best regards,

Bill

William Terrill, PhD
Arizona State University
Interim Associate Dean, Watts College of Public Service and Community Solutions
Professor, School of Criminology & Criminal Justice
Co-Editor, Policing: A Journal of Policy & Practice

Sent on behalf of Dr. James S. Collofello

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James S. Collofello
Vice Dean for Academic and Student Affairs
PROPOSAL TO ESTABLISH A NEW MASTER'S DEGREE PROGRAM

(NEW GRADUATE INITIATIVES)

PROPOSAL PROCEDURES CHECKLIST

Academic units should adhere to the following procedures when requesting new curricular initiatives (degrees, concentrations or certificates).

☑ Obtain the required approval from the Office of the Provost to move the initiative forward for internal ASU governance reviews/approvals. Please see the academic strategic plan website at: https://provost.asu.edu/curriculum-development.

☑ Submit any new courses that will be required for the new curricular program to the Curriculum ChangeMaker online course approval system for review and approval.
  ▪ Additional information can be found at the Provost's Office Curriculum Development website: Courses link
  ▪ For questions regarding proposing new courses, send an email to: courses@asu.edu

☑ Prepare the applicable proposal template and operational appendix for the proposed initiative.

☑ Obtain letters or memos of support or collaboration (if applicable).
  ▪ when resources (faculty or courses) from another academic unit will be utilized
  ▪ when other academic units or degree programs may be impacted by the proposed request
  ▪ if the program will have an online delivery option support will be required from the Provost’s office and ASU Online. (Please complete the ASU Online Offering form in Curriculum ChangeMaker to begin this request.)

☑ Obtain the internal reviews/approvers of the academic unit.
  ▪ internal faculty governance review committee(s)
  ▪ academic unit head (e.g. Department Chair or School Director)
  ▪ academic unit Dean or their designee (will submit approved proposal to the curriculumplanning@asu.edu email account for further ASU internal governance reviews (as applicable, University Graduate Council, CAPC and Senate)

Additional Recommendations

All new graduate programs require specific processes and procedures to maintain a successful degree program. Below are items that the Graduate College strongly recommends that academic units establish after the program is approved for implementation.

☑ Establish satisfactory academic progress policies, processes and guidelines – Check within the proposing academic unit and/or college to see if there are existing academic progress policies and processes in place. If none have been established, please go to http://graduate.asu.edu/faculty_staff/policies and scroll down to the academic progress review and remediation processes (for faculty and staff) section to locate the reference tool and samples for establishing these procedures.

☑ Establish a Graduate Student Handbook for the new degree program – Students need to know the specific requirements and milestones they must meet throughout their degree program. A Graduate Student Handbook, provided to students when they are admitted to the degree program and published on the website for the new degree, gives students this information. To be included in the handbook are the unit/college satisfactory academic progress policies, current degree program requirements (outlined in the approved proposal) and a link to the Graduate Policies and Procedures website: http://graduate.asu.edu/faculty_staff/policies.