Proposal to Offer a New Degree Program

ON GLOBAL CAMPUS

Degree Title:	Master of Energy Conscious Construction
Academic Program:	Engineering
Academic Plan:	Professionally oriented
Number of Credits:	30
Department(s) or Program(s):	School of Design and Construction
College(s):	Voiland College of Engineering and Architecture
Campus(es):	Global and Pullman
Method of Instructional Delivery:	Online via Global Campus

Contact Name:	Kelly Newell	Email Address:	knewell@wsu.edu
Contact Phone:	509-335-4247	*Proposed start date:	Summer 2024

***Proposed Start Date:** Approval must be received from the Northwest Commission on Colleges and Universities before the program may be advertised or recruited for. Financial aid may not be available until the program has been approved by the Department of Education subsequent to NWCCU approval.

SIGNATURES: The names typed below certify that the relevant academic and campus officials have reviewed and approved this proposal:

Chair Signature:	Jason Peschel (by email confirmation to Kelly Newell)	Date:	Approved by email 1-5-23
Everett Chancellor:		Date:	
Spokane Chancellor:		Date:	
Tri-Cities VCAA		Date:	
Vancouver VCAA		Date:	
Dean Signature:	Mary Rezac (see attached letter)	Date:	Nov 4, 2022
Global Chancellor:	David Cillay (by email confirmation to Kelly Newell)	Date	Approved by email 12-21-22
Provost & Pullman Chancellor:		Date:	

Comments:
Attached: Projected Student Numbers Financial Projections

For Registrar's Office Use Only:					
Current CIP Code:		New CIP Code:		Date:	

Send completed form in Word format to: provost.deg.changes@wsu.edu

This template asks you to answer the array of questions about your proposed program that are important to your department, your college, the Faculty Senate, the State of Washington, accreditors and other external stakeholders.

By placing all proposals in a similar format, this template provides a common standard for comparison, ensuring that all potential programs can be evaluated in an equitable fashion. It can be used to determine whether or not a program is feasible within the university's academic and financial situation, and if it will have the resources to further the University's objective of providing high quality education and scholarship.

This template is also a framework to think about the viability of your ideas. It can thus be a tool for strengthening both your proposal and the resulting program itself, since a program that is starved for either students or resources from its inception is not likely to become a high quality program.

Here are some of the things to consider as you complete the template:

> What are the aspirations for the reputation of this program – local, regional, national? What will it take to make that a reality?
> Who are you trying to attract with this new program? Will it bring new students to the university, better meet the needs of current students in the department, or draw students away from other departments?
> How strong is the demand for education of this kind, and in what specific careers will someone who receives such an education find meaningful employment?
> How many students do you need to attract to break even, and can both the market and WSU's capacity support this number?

Providing good answers to hard questions maximizes the likelihood that a new program will not just win acceptance by the Faculty Senate and administration, but will ultimately be successful in attracting students and placing graduates. The analyses in the Demand, Financial and Library workbooks will assist you in creating a persuasive proposal. The findings in each area, and their basis or justification, should be summarized in the proposal itself.

Proposal

Mission and Core Themes (Strategic Goals):

Provide a clear statement of the nature and purposes of the new degree in the context of WSU's mission and core themes (strategic plan).
The Master's of Energy Conscious Construction (MECC) program provides a comprehensive foundation in building science, focused on high-performing energy-efficient residential building design and construction in the state of Washington. It covers all phases of the design process from pre-design through construction and post occupancy evaluation. This interdisciplinary program is developed as a collaboration between the School of Design and Construction, the School of Mechanical and Materials Engineering, and Washington State University's nationally recognized Extension Energy Program. This program aligns WSU with Washington State's initiatives to significantly reduce greenhouse gas emissions from buildings through the Climate Commitment Act. More than half of residential buildings in WA were built before 1980 and residential buildings consume 23% of all energy. Washington State's residential energy code (WSEC-R) is one of the most advanced in the nation, but for effective implementation by a trained workforce, it must be coupled with accessible education focused on energy-efficient buildings. No comprehensive emphasis in this area is currently offered by colleges and universities in the state. Our innovative MECC program helps advance the WSU mission as a land-grant university in service to society through extending knowledge that will create future leaders in energy-efficient buildings and application of knowledge that will enhance the quality of life and the economy of the state, nation and world. The faculty members in the MECC program are leading experts in their respective disciplines. Our faculty members teach and conduct research activities in energy-efficient carbon-neutral building design, construction, and operation. Creating this program will bring this expertise together leveraging the Voiland College of Engineering and Architecture unique structure of having design, engineering, and construction disciplines under the same college. By offering the proposed degree online, WSU creates access to high-quality degrees in a high-demand discipline to those who may not be able to avail themselves of the physical campus degree. The Global Campus degree serves rural students, working professionals, and those who are place-bound for diverse reasons.

Educational Offerings:

Describe the degree program, including the total number of credits required. Provide the four-year degree plan (undergraduate) or appropriate plan of study (graduate and professional). Please note that all courses for the degree must be approved before the degree will be reviewed by the Catalog Subcommittee.
The online program will allow place-bound students the same opportunity to earn a master's degree as students who are not. In addition, the program gives access to students who prefer the convenience of the Global Campus without having to relocate. As a professionally oriented master's degree, the program is designed to meet the needs of aspiring and working professionals and adult learners. It will also provide opportunities for working professionals to refresh and update their skills and for those seeking to change careers. It offers all the opportunity to raise their credentials to WSU standards. Additionally, the School of Design and Construction has created two relevant and desirable certificate programs at the undergraduate and graduate levels that will appeal to students in the Voiland College who desire upgraded credentials but are not interested in a full degree program. Currently, the only graduate programs in the SDC are the Masters of Arts in Interior Design and the Master of Architecture, both of which are offered in-person and focus on the broader areas of knowledge in their respective disciplines. This 30-credit hour program has a one-year and two-year pathway and will cater to:

- Existing students completing our undergraduate programs who desire to extend their stay an additional year to receive a specialized degree on top of their undergraduate degree.
- Existing students completing our graduate programs who desire to extend their stay an additional year and receive a second graduate degree in a specialized area.
- New students who will join WSU specifically for this degree.

See Exhibit A for degree plans

See Exhibit B for new course development and delivery schedule.

Provide descriptive information regarding (the) method(s) of instructional delivery (percent face-to-face, hybrid, distance, and/or competency-based).
This degree will be delivered online, asynchronously via the Global Campus LMS infrastructure. Students will access all courses via online delivery and will utilize 16-week semester-based courses. Students enrolled in SDC 511: Field Inspection and SDC 513: Comprehensive Design Experience respectively will have online synchronous interactions with our faculty, primarily design crits, student presentations, and lectures by subject matter experts. The comprehensive design experience will count as the capstone experience to fulfill the requirements for the degree.

Assessment of Student Learning and Student Achievement
*** For graduate programs, please contact the Graduate School before completing this section.**

Please provide a list and description of expected student learning outcomes.
School of Design and Construction faculty are working with Scott Avery at the WSU Office of Assessment of Teaching and Learning to formulate a comprehensive assessment plan for this degree in time for the degree to become operationalized.

For undergraduate programs, provide the department's plan for assessing student learning outcomes. Describe briefly how information on student learning will be collected and incorporated into existing processes for evaluating student learning in the department. Please attach the plan and a curriculum matrix.
N/A

Please indicate as appropriate:

☐ Assessment of this program will be incorporated into an existing assessment plan. Please attach a copy of the existing plan.

☐ A draft assessment plan is attached.

☐ A curriculum matrix is attached.

☒ A draft assessment plan being created in concert with the Office of Assessment of Teaching and Learning and will be available prior to degree launch.

Planning:

Describe plans and include descriptions which provide evidence of:
1. The need for the change

A professionally oriented master's degree program is an academic degree that prepares or enhances the preparation of a student in a particular profession by increasing competency in a set of knowledge and skills required in practice. These professions are typically licensed or government-regulated and often require the members of the profession to be externally accredited. Professions such as architecture, landscape architecture, construction management, engineering, often require a degree for licensing. The professionally oriented master's degree program relies heavily on a competency curriculum that strongly aligns with regional and national competency gaps. In our case, we align with competencies identified by the Department of Energy Energy-Efficiency and Renewable Energy Office. Students will have hands-on experiences, industry engagement, and a final capstone experience that brings together all the knowledge they have obtained and applies it to an actual project. This Master's of Energy Conscious Construction (MECC) is a new addition to graduate studies in the School of Design and Construction as well as the Voiland College of Engineering and Architecture, thus providing opportunity that has not existed previously.

2. The student population to be served
Provide realistic justification for the projected FTE.
How can transfer students articulate smoothly into the program and complete it with approximately the same number of total credits as students who enter WSU as freshmen?
Please describe specific efforts planned to recruit and retain students who are persons of color, disabled, or whose gender is underrepresented in this discipline.

The Global Campus primarily serves working adults seeking additional skills and educational attainment. The Global Campus employs numerous recruiters and marketing professionals who seek appropriate students for all degree programs, though the Voiland College of Engineering and Architecture (VCEA) and the School of Design and Construction (SDC) will be primarily responsible for marketing and recruiting directly related to this specific degree program.

Projecting online graduate enrollments in any major is difficult and an inexact science. However, based on the demand in the workforce, conferrals at competitive programs and WSU, and the performance of other recently launched online master's programs at WSU, we anticipate the enrollment to reach approximately 25 in year 5. The program needs approximately 15 students enrolled in the MECC taking 30 credits per year to reach stasis and become profitable. We anticipate reaching that enrollment level by year 3.

Currently the SDC has recruited and retained diverse graduate students in our programs. We will continue to reach out to the underrepresented groups in the workforce and professional associations and social media, etc. The VCEA is a recipient of the Bronze Award for the 2019 inaugural American Society of Engineering Education (ASEE) Diversity Recognition Program which was created to publicly recognize those engineering and engineering technology colleges that make significant, measurable progress in increasing the diversity, inclusion, and degree attainment outcomes of their programs. The VCEA continues to administer several programs that engage in providing opportunity for the underserved.

The new MECC program requires for graduation the completion of 30 credit hours. Students who complete the undergraduate certificate in ECC can transfer 9 of the 15 credits towards the master program thereby requiring that they complete an additional 21 credit hours to earn the master's degree. Students who complete the graduate certificate in ECC can transfer all 12 credits towards the master program thereby requiring that they complete an additional 18 hours to earn the master's degree.

Enrollment predictions are difficult to produce with accuracy, however based on conferrals at regional programs and existing online programs coupled with the demand analysis for jobs in this area, with targeted and focused marketing strategies, VCEA believes this program will meet enrollment targets as articulated in the budget. As with all online degree programs, enrollment will be closely monitored and should enrollment targets not be met, after every effort to recruit students has been exhausted, the program will be sunset and phased out slowly to ensure all students have the opportunity to complete their degree.

In addition to the desirability of the degree program itself, the two undergraduate and graduate certificates undergoing approval should draw enrollments to the courses that will supplement the full-degree-seeking enrollments and those numbers are not included in the budget projections.

3. Procedures used in arriving at the decision to change (e.g., consultation with advisory boards, input from industry or employers, commissioned studies, faculty task force, etc.).

The decision to offer the degree was based on the growing regional and national demand for expertise in energy-efficient residential design and construction targeting the competency gaps outlined by the Department of Energy. This is supported by new initiatives in the state of Washington such as Climate Commitment Act, feedback from industry professionals, feedback from research scientists at national labs, and $750,000 of federal funding from the Department of Energy Office of Energy Efficiency and Renewable Energy (EERE) under the Building Technologies Office (BTO) Award Number DE-EE0009746. Additionally, WSU Institutional Research indicates a drop in graduate students' numbers and opportunities such as this online degree will assist in attracting more graduate students to WSU.

The Voiland College of Engineering and Architecture (VCEA) is highly positioned to fulfill this demand having design, engineering, and construction management housed within a single college as well as access to the nationally recognized WSU Extension Energy Program resulting in shared resources, allowing efficient delivery of the proposed programs. However, to date, the benefits of VCEA's shared structures have not been leveraged for interdisciplinary programs.

The goal of providing that education to design, construction, and engineering students and industry professionals is met with the creation of the Master's of Energy Conscious Construction (MECC) degree and the ECC certificates at the undergraduate and graduate levels. Additionally, the Global Campus has commissioned numerous market demand analyses in overall need for programs in the Spokane area, Washington State, and the Pacific Northwest. Those studies refer to energy-efficient design and construction as high-demand areas in terms of degrees, professional certificates, and jobs. Please review Exhibit G.

4. Organizational arrangements required within the institution to accommodate the change.

The School of Design and Construction (SDC) plans to leverage existing faculty and teaching resources, for the online Master of Energy Conscious Construction (MECC) to minimize additional costs, if any. The content is being developed using funds from the Department of Energy Office of Energy Efficiency and Renewable Energy (EERE) under the Building Technologies Office (BTO) Award Number DE-EE0009746. In addition, the current marketing and recruiting efforts will be expanded to the online degree, including, but not limited to:

- Alumni
- Advisory board
- Governments (state, local)
- Design and Construction Organizations and Corporations
- SDC Partners in professional practice
- Graduates of the B. S., M.ARCH, and M.A degrees

The program architecture is as follows: the master's program will be directed by Omar Al-Hassawi, Assistant Professor in the School of Design and Construction for oversight to whom faculty and students are accountable. He is responsible for the management of any changes to the program. The SDC Admissions and academic advisors, led by Jaime Rice will be responsible for the admissions process, academic advising, coaching, and remediation (if needed) as informed by the assessment and evaluations. The Global Campus team provides technical support.

5. Lay out a three-year timetable for implementation, including hiring plans, partnership contracts if needed, facilities modification, recruiting, and other elements of implementation. Provide dates for each step.

2022-2023	Course development (see course development schedule, Exhibit B) Begin marketing/recruitment for certificates Begin offering the online certificates Spring 2023
2023-2024	Continue course development Continue marketing/recruitment for certificates and professional master's degree Begin assessment of certificates
2024-2025	Begin offering the online master's degree Summer 2024 Monitor enrollment in individual courses; revise frequency of offerings as indicated Continue marketing

Budget:

☒ Attach the Financial Worksheet with five-year FTE, revenue and expenditure projections. Fully account for costs such as staff support, training, library, facilities and so on.

Please describe the funding picture narratively, including funding sources, department, college and/or campus commitments, investments already made, one-time costs, facilities costs (labs, classrooms, offices, telecom etc.) and library costs.
The department is not planning to hire any new faculty to support the online degree. Instead, the courses will be taught by existing faculty in concert with their on-campus courses or necessary thought leaders (i.e., adjuncts) will receive stipends to teach specific content. Additionally, the department is proposing $750 per credit to be in line with current online degree trends. This additional tuition revenue will incentivize the department and college and support the growth of the program through marketing and corporate relation activities and continuous program improvement. Two summer courses, one fall course, and one spring course taught in the undergraduate and graduate Energy Conscious Construction Certificates will be shared with this degree for resource efficiency purposes. Additionally, students begin the master's program in the summer which makes sharing summer courses with the certificates a viable approach. Please see Exhibits C and D for the budget model details and enrollment projections.

Student Services:

Describe the capacity of student support services to accommodate the change at this location. Include a description of admissions, financial aid, advising, library, tutoring and other services specific to this request.
The Global Campus provides comprehensive student services, often in collaboration and cooperation with the centralized units, to ensure student success. Included are dedicated recruiters, transfer credit evaluation, career counseling, financial aid, e-tutoring, student involvement, and tech support for online students. The Global Campus is also skilled in working with students to match their goals with the programs and services offered by WSU. Additionally, WSU Global Campus personnel are the experts on adult and contemporary distance learners and provide specialized services to meet the needs of these unique students. WSU Global Campus creates opportunities for meaningful student engagement through unique student involvement activities offered virtually and face-to-face. The Global Campus provides a robust infrastructure of support programs to assist students enrolled at any degree level, VCEA SDC will provide extensive advising to the students enrolled and will handle all admissions decisions.

Describe the implications of the change for services to the rest of the student body.

Adding online courses and creating access to a new degree program adds opportunity and options for student success and flexibility that accommodates students' needs. Current students should not be negatively affected by the delivery of this new degree program and modality. Additionally, students and faculty from other WSU campuses will be able to participate in the courses (teaching and learning) when appropriate.

Physical Facilities and Equipment:

Outline the provision/s made for physical facilities and equipment at the proposed location that will support the program and its projected growth. Include videoconferencing and other technologies that support course delivery as well as classrooms, labs, and office space.
None. All online courses are fully supported by AOI and the Global Campus through the Learning Management System.

Library and Information Resources:

Using the Library Analysis form, describe the availability and adequacy of library and information resources for this degree, degree level, and location. Note plans to address gaps.
See Exhibit E for support from Library

Faculty:

List the educational and professional qualifications of the faculty relative to their individual teaching assignments. List the anticipated sources or plans to secure qualified faculty and staff.
Existing and stipend/adjunct faculty will develop and teach the online courses. All faculty teaching online are held to the same qualifications as faculty on the physical campuses. Deans and Directors are directly responsible for the hiring of all teaching faculty and ensure credentials are appropriate for the program and will hire faculty using normal hiring processes. Content experts will be given a stipend and rank of adjunct faculty for delivery of the coursework that is beyond the capacity of the current faculty.

Impact on Other Locations/Programs:

Briefly describe any impacts on other WSU programs and locations, and how you came to these conclusions (who was consulted?). If there are potential adverse impacts, describe how these will be addressed. Consider such things as: reallocation of faculty time, reallocation of AMS courses, impact of blended courses, internal competition, "cannibalization" of other programs, curricular effects for other degrees, effects on recruitment markets for other campuses. Indicate how such problems will be addressed for each campus or department affected.
The faculty from the Voiland College involved in delivering this degree will be paid in the summer for their efforts in delivering content in the Fall and/or Spring. All SDC prefix courses are new course numbers and names. The ARCH and ID prefix courses are courses that have not been taught in their respective programs and have been reutilized for the purposes of this degree. ARCH 531is currently offered in Master of Architecture program with similar learning outcomes and a separate global campus section will be offered to students in the MECC. The Mechanical and Materials Engineering program are reutilizing ME 419 and ME 597 for the purpose of this degree as well as electives to students in their undergraduate and graduate degrees.

Sustainability

What are the plans for continuing the program past 5 years if the goals for enrollment are not met, or other circumstances prevent the execution of the plan described here?
All new online degree programs will be evaluated continuously for enrollment and financial metrics. Under-performing degrees will be sunset once the college, department, and Global Campus have explored all reasonable efforts to increase enrollments and revenue through marketing, partnerships, and innovation. However, prior to sunsetting (phasing out a degree for non-enrollment performance) a degree, the need for the courses that are provided online will also be analyzed to ensure little to no impact on other departments and programs that rely on those courses. Any degree that is discontinued will include an appropriate teach-out plan and students will be supported to completion of the degree.

External Reviews

If this program is new to the Washington State University system, please provide the names and addresses of 2-3 external experts from similar institutions who could be contacted to provide reviews of this program.	
Name	**Contact Information (email, phone, address)**
Ian Blanding	**ian.blanding@ee.doe.gov, 202.441.1288, U.S. Department of Energy**
Jeremy Williams	**jeremy.williams@ee.doe.gov, 202.441.1288, U.S. Department of Energy**
Mark DeKay	**mdekay@utk.edu , 865.773.7177, University of Tennessee Knoxville**

Attachments:

- ☒ Financial Worksheet
- ☒ Four-Year Degree Plan (undergraduate); curriculum overview (graduate and professional)
- ☐ Assessment Plan (In development)
- ☒ Letters of financial commitment from Dean Rezac
- ☒ Contracts or MOUs if applicable
- ☒ Letter of Support from Library
- ☒ Budget projections (Self-Sustaining and State-Funded)

Send in Word format to: provost.deg.changes@wsu.edu

Exhibit A
Program Requirements for the Degree

Description: The Master of Energy Conscious Construction (MECC) is a professionally oriented master's degree offered fully online via the Global Campus which is comprised of ten courses. A total of 30 semester credits are required based on coursework only. All credits will be taken from the Voiland College of Engineering and Architecture (VCEA) and successful completion of the degree with a 3.0 GPA or better will guarantee completion of the ECC. The capstone course (SDC 513) must be taken in the final semester of a student's progress toward graduation.

Catalog Description: The Professional Master's Degree in Energy Conscious Construction (MECC) is delivered online synchronously and asynchronously through WSU Global Campus. It will teach students the fundamentals of building science, while focusing on the evaluation and integration of environmental control systems; understanding current residential energy code requirements and the design methods to exceed these standards; applying modern envelope assemblies into residential building design; using whole-building simulation software to evaluate design proposals; evaluate building performance using field measurements; and understanding human behavioral impacts on building performance; and examine strategies to mitigate such impacts. Furthermore, students will create and develop a comprehensive design of a multi-family residential project. It tackles the following competency gaps:

- Energy modeling and simulation: analyze design performance prior to construction
- Environmental Control systems: Integrate energy-efficient ECS into designs
- Performance benchmarks: Meet and exceed state energy code requirements
- Assemblies & Structural Systems: Integrate energy-efficient assemblies into designs
- Measured Performance Data: Evaluate built projects through field observations
- Smart Building Technologies: Understand human behavior impact on building operation

Courses Required: The Degree is New; These Courses Are Already Approved.

One-year path

Semester and course name	Course number	Course credit hours
SUMMER		
Energy Codes, Standards, Rating Systems	SDC 541	3
Fundamentals of Building Science	ME 419	3
FALL YEAR 01		
Environmental Control Systems I	ARCH 493	3
Energy Modeling II	SDC552	3
Human Centered Building Design & Operation	ID 520	3
Field Inspection and Energy Auditing*	SDC 511	4
SPRING YEAR 01		
Environmental Control Systems II	ME 597	3
Envelope Assemblies	ARCH 531	3
Comprehensive Design Experience (Capstone)*	SDC 513	4
Independent study	600 level	1
TOTAL		**30**

* Undergoing approval process

Two-year path

Semester and course name	Course number	Course credit hours
SUMMER		
Fundamentals of Building Science	ME 419	3
Energy Codes, Standards, Rating Systems	SDC 541	3
FALL YEAR 01		
Energy Modeling II	SDC 552	3
Environmental Control Systems I	ARCH 493	3
SPRING YEAR 01		
Environmental Control Systems II	ME 597	3
Envelope Assemblies	ARCH 531	3
FALL YEAR 02		
Human Centered Building Design & Operation	ID 520	3
Field Inspection and Energy Auditing*	SDC 511	4
SPRING YEAR 02		
Comprehensive Design Experience (Capstone)*	SDC 513	4
Independent study	600 level	1
TOTAL		**30**

Admission Requirements: The MECC Degree is open to everyone with an undergraduate degree in Design, Engineering, or Construction fields from WSU programs and outside WSU.

Exhibit B
Course Development Plan

Course #	Course Title	Desired Development Term	Desired Delivery Term	Course Developer (faculty or Grad student)	Course Instructor
ARCH 493	Environmental Control Systems I	Fall 2022-Spring 2023	Fall 2024	Omar Al-Hassawi Dustin McLarty	Omar Al-Hassawi
ARCH 531	Envelope Assemblies	Fall 2022-Spring 2023	Spring 2025	David Drake	David Drake
ME 419	Fundamentals of Building Science	Fall 2022-Spring 2023	Fall 2024	Dustin McLarty	Dustin McLarty
SDC 541	Energy Codes, Standards, Rating Systems	Fall 2022-Spring 2023	Fall 2024	Megan Kramer Jonathan Jones	Megan Kramer
SDC 513	Comprehensive Design Experience (Capstone)	Fall 2022-Spring 2023	Spring 2025	Taiji Miyasaka	Taiji Miyasaka
SDC 511	Field Inspection and Energy Auditing	Spring 2023-Fall 2023	Fall 2024	David Drake Megan Kramer	David Drake
ID 520	Human Centered Building Design & Operation	Spring 2023-Fall 2023	Fall 2024	Julia Day	Julia Day
ME 597	Environmental Control Systems II	Fall 2022-Spring 2023	Spring 2025	Dustin McLarty	Dustin McLarty
SDC 552	Energy Modeling II	Fall 2022-Spring 2023	Fall 2024	Omar Al-Hassawi	Omar Al-Hassawi

Exhibit C
Budget Projection (Proposed with Differential Tuition, Self-Sustaining)

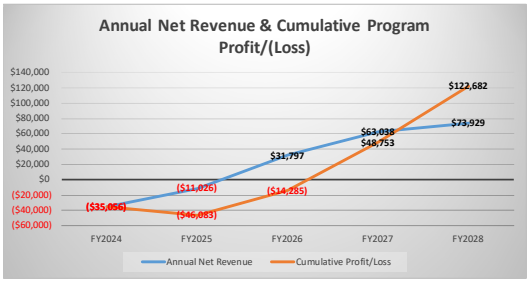
Program Name	Masters of Energy Conscious Construction	Self-Sustaining Model

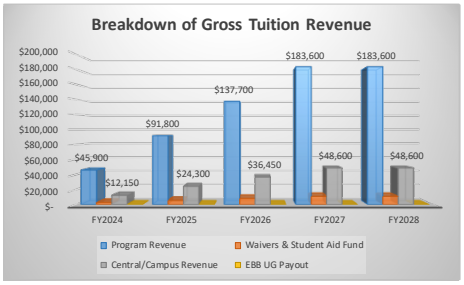
Tuition Earned	FY2024	% of Total Tuition	FY2025	% of Total Tuition	FY2026	% of Total Tuition	FY2027	% of Total Tuition	FY2028	% of Total Tuition	Cumulative	Cumulative %
Gross Operating Tuition - Masters Program (Excludes UG Tuitio	$ 67,500	100.00%	$ 135,000	100.00%	$ 202,500	100.00%	$ 270,000	100.00%	$ 270,000	100.00%	$ 945,000	100.00%
Less Waivers or Tuition Discounting - Masters	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to this Program	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to Central	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to other Programs (Includes Net to Home College)	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
Net Tuition	**$ 67,500**	**100.00%**	**$ 135,000**	**100.00%**	**$ 202,500**	**100.00%**	**$ 270,000**	**100.00%**	**$ 270,000**	**100.00%**	**$ 945,000**	**100.00%**

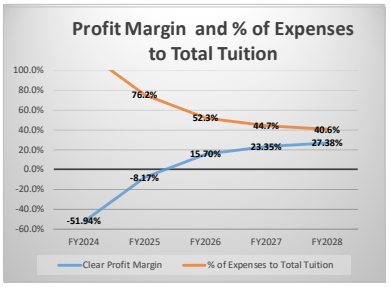
Split of Tuition by Area	FY2024	% of Total Tuition	FY2025	% of Total Tuition	FY2026	% of Total Tuition	FY2027	% of Total Tuition	FY2028	% of Total Tuition	Cumulative Total Tuition Split	Cumulative %
Masters of Energy Conscious Construction	$ 45,900	68.0%	$ 91,800	68.0%	$ 137,700	68.0%	$ 183,600	68.0%	$ 183,600	68.0%	$ 642,600	68.0%
EBB UG Tuition for Courses Delivered by Program Home Dept	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
EBB Tuition to College that Delivered UG Courses	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Tuition Waivers or Discounting	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Campus Fee (5%)	$ 3,375	5.0%	$ 6,750	5.0%	$ 10,125	5.0%	$ 13,500	5.0%	$ 13,500	5.0%	$ 47,250	5.0%
Central Share of UG Tuition (Estimate)	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Central (11% + 2% Strategic Reallocation)	$ 8,775	13.0%	$ 17,550	13.0%	$ 26,325	13.0%	$ 35,100	13.0%	$ 35,100	13.0%	$ 122,850	13.0%
Student Aid Fund (4%)	$ 2,700	4.0%	$ 5,400	4.0%	$ 8,100	4.0%	$ 10,800	4.0%	$ 10,800	4.0%	$ 37,800	4.0%
VCEA Fee	$ 6,750	10.0%	$ 13,500	10.0%	$ 20,250	10.0%	$ 27,000	10.0%	$ 27,000	10.0%	$ 94,500	10.0%
Total - Gross Tuition	**$ 67,500**	**100.0%**	**$ 135,000**	**100.0%**	**$ 202,500**	**100.0%**	**$ 270,000**	**100.0%**	**$ 270,000**	**100.0%**	**$ 945,000**	**100.0%**

Direct & Indirect Costs for Academic Program	FY2024 Program Costs	% of Program Revenue	FY2025 Program Costs	% of Program Revenue	FY2026 Program Costs	% of Program Revenue	FY2027 Program Costs	% of Program Revenue	FY2028 Program Costs	% of Program Revenue	Cumulative Program Costs	Cumulative %
Direct Instructional Salaries & Benefits	$ 49,442	107.7%	$ 54,654	59.5%	$ 63,038	45.8%	$ 62,836	34.2%	$ 64,093	34.9%	$ 294,063	56.6%
Direct Instructional Support Salaries & Benefits	$ 28,314	61.7%	$ 30,906	33.7%	$ 39,531	28.7%	$ 40,322	22.0%	$ 42,102	22.9%	$ 181,175	34.8%
Third Party Costs (Incl A.O.I. Level 2 / 3 Service)	$ -	0.0%	$ 14,000	15.3%	$ -	0.0%	$ 14,000	7.6%	$ -	0.0%	$ 28,000	5.4%
Direct Course Costs	$ 3,200	7.0%	$ 3,266	3.6%	$ 3,334	2.4%	$ 3,404	1.9%	$ 3,476	1.9%	$ 16,680	3.2%
Other Costs	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Total	**$ 80,956**	**176.4%**	**$ 102,826**	**112.0%**	**$ 105,903**	**76.9%**	**$ 120,562**	**65.7%**	**$ 109,671**	**59.7%**	**$ 519,918**	**100.0%**

	FY2024	%	FY2025	%	FY2026	%	FY2027	%	FY2028	%	Cumulative	Cumulative %
Profit or (Loss) & % of Profit to Program after all expenses are covered	**($35,056)**	**-51.9%**	**($11,026)**	**-8.2%**	**$31,797**	**15.7%**	**$63,038**	**23.3%**	**$73,929**	**27.4%**	**$122,682**	**13.0%**
Cumulative Profit/(Loss) to Date	**($35,056)**		**($46,083)**		**($14,285)**		**$48,753**		**$122,682**			
Amount Paid to Program per SCH	**$ 510**		**$ 510**		**$ 510**		**$ 510**		**$ 510**			
Amount Paid to Program per AAFTE	**$ 15,300**		**$ 15,300**		**$ 15,300**		**$ 15,300**		**$ 15,300**			
Clear Profit/(Loss) to Program per SCH	**($389.51)**		**($61.26)**		**$117.77**		**$175.11**		**$205.36**			
Clear Profit/(Loss) to Program per AAFTE	**($7,011.26)**		**($1,102.65)**		**$2,119.83**		**$3,151.92**		**$3,696.44**			







Fiscal Year	FY2024	FY2025	FY2026	FY2027	FY2028
Annual Net Revenue	($35,056)	($11,026)	$31,797	$63,038	$73,929
Cumulative Profit/Loss	($35,056)	($46,083)	($14,285)	$48,753	$122,682

	FY2024	FY2025	FY2026	FY2027	FY2028
Program Revenue	$ 45,900	$ 91,800	$ 137,700	$ 183,600	$ 183,600
Waivers & Student Aid Fund	$ 2,700	$ 5,400	$ 8,100	$ 10,800	$ 10,800
Central/Campus Revenue	$ 12,150	$ 24,300	$ 36,450	$ 48,600	$ 48,600
EBB UG Payout	$ -	$ -	$ -	$ -	$ -

	FY2024	FY2025	FY2026	FY2027	FY2028
Clear Profit Margin	-51.9%	-8.2%	15.7%	23.3%	27.4%
% of Expenses to Total Tuition	119.9%	76.2%	52.3%	44.7%	40.6%

Exhibit D
Budget Projections (State Funded)

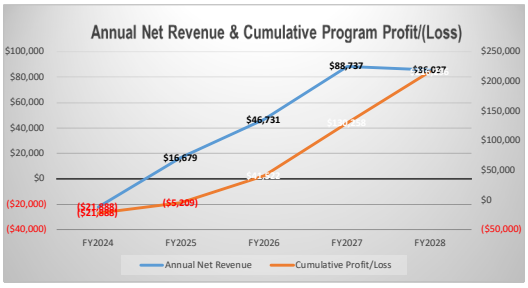
Program Name	Masters of Energy Conscious Construction	State-Funded Model

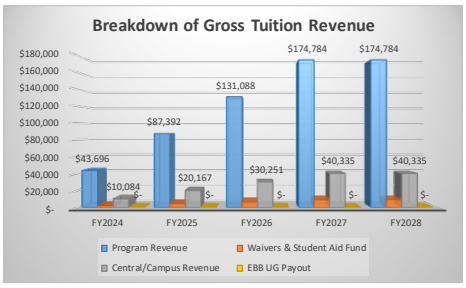
Tuition Earned	FY2024	% of Total Tuition	FY2025	% of Total Tuition	FY2026	% of Total Tuition	FY2027	% of Total Tuition	FY2028	% of Total Tuition	Cumulative	Cumulative %
Gross Operating Tuition - Masters Program (Excludes UG Tuition)	$ 56,021	100.00%	$ 112,041	100.00%	$ 168,062	100.00%	$ 224,082	100.00%	$ 224,082	100.00%	$ 784,287	100.00%
Less Waivers or Tuition Discounting - Masters	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to this Program	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to Central	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
EBB Tuition to other Programs (Includes Net to Home College)	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%	$ -	0.00%
Net Tuition	**$ 56,021**	**100.00%**	**$ 112,041**	**100.00%**	**$ 168,062**	**100.00%**	**$ 224,082**	**100.00%**	**$ 224,082**	**100.00%**	**$ 784,287**	**100.00%**

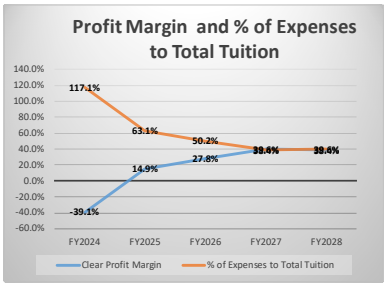
Split of Tuition by Area	FY2024	% of Total Tuition	FY2025	% of Total Tuition	FY2026	% of Total Tuition	FY2027	% of Total Tuition	FY2028	% of Total Tuition	Cumulative Total Tuition Split	Cumulative %
Masters of Energy Conscious Construction	$ 43,696	78.0%	$ 87,392	78.0%	$ 131,088	78.0%	$ 174,784	78.0%	$ 174,784	78.0%	$ 611,744	78.0%
EBB UG Tuition for Courses Delivered by Program Home Dept	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
EBB Tuition to College that Delivered UG Courses	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Tuition Waivers or Discounting	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Campus Fee (5%)	$ 2,801	5.0%	$ 5,602	5.0%	$ 8,403	5.0%	$ 11,204	5.0%	$ 11,204	5.0%	$ 39,214	5.0%
Central Share of UG Tuition (Estimate)	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Central (11% + 2% Strategic Reallocation)	$ 7,283	13.0%	$ 14,565	13.0%	$ 21,848	13.0%	$ 29,131	13.0%	$ 29,131	13.0%	$ 101,957	13.0%
Student Aid Fund (4%)	$ 2,241	4.0%	$ 4,482	4.0%	$ 6,722	4.0%	$ 8,963	4.0%	$ 8,963	4.0%	$ 31,371	4.0%
Total - Gross Tuition	**$ 56,021**	**100.0%**	**$ 112,041**	**100.0%**	**$ 168,062**	**100.0%**	**$ 224,082**	**100.0%**	**$ 224,082**	**100.0%**	**$ 784,287**	**100.0%**

Direct & Indirect Costs for Academic Program	FY2024 Program Costs	% of Program Revenue	FY2025 Program Costs	% of Program Revenue	FY2026 Program Costs	% of Program Revenue	FY2027 Program Costs	% of Program Revenue	FY2028 Program Costs	% of Program Revenue	Cumulative Program Costs	Cumulative %
Direct Instructional Salaries & Benefits	$ 34,070	78.0%	$ 36,541	41.8%	$ 41,492	31.7%	$ 42,322	24.2%	$ 43,168	24.7%	$ 197,593	50.0%
Direct Instructional Support Salaries & Benefits	$ 28,314	64.8%	$ 30,906	35.4%	$ 39,531	30.2%	$ 40,322	23.1%	$ 42,102	24.1%	$ 181,175	45.8%
Third Party Costs (Incl A.O.I. Level 2 / 3 Service)	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Direct Course Costs	$ 3,200	7.3%	$ 3,266	3.7%	$ 3,334	2.5%	$ 3,404	1.9%	$ 3,476	2.0%	$ 16,680	4.2%
Other Costs	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%	$ -	0.0%
Total	**$ 65,584**	**150.1%**	**$ 70,713**	**80.9%**	**$ 84,357**	**64.4%**	**$ 86,047**	**49.2%**	**$ 88,747**	**50.8%**	**$ 395,448**	**100.0%**

	FY2024	%	FY2025	%	FY2026	%	FY2027	%	FY2028	%	Cumulative	Cumulative %
Profit or (Loss) & % of Profit to Program after all expenses are covered	**($21,888)**	**-39.1%**	**$16,679**	**14.9%**	**$46,731**	**27.8%**	**$88,737**	**39.6%**	**$86,037**	**38.4%**	**$216,296**	**27.6%**
Cumulative Profit/(Loss) to Date	**($21,888)**		**($5,209)**		**$41,522**		**$130,258**		**$216,296**			
Amount Paid to Program per SCH	**$ 486**		**$ 486**		**$ 486**		**$ 486**		**$ 486**			
Amount Paid to Program per AAFTE	**$ 14,565**		**$ 14,565**		**$ 14,565**		**$ 14,565**		**$ 14,565**			
Clear Profit/(Loss) to Program per SCH	**($243.20)**		**$92.66**		**$173.08**		**$246.49**		**$238.99**			
Clear Profit/(Loss) to Program per AAFTE	**($4,377.56)**		**$1,667.87**		**$3,115.40**		**$4,436.83**		**$4,301.87**			







Fiscal Year	FY2024	FY2025	FY2026	FY2027	FY2028
Annual Net Revenue	($21,888)	$16,679	$46,731	$88,737	$86,037
Cumulative Profit/Loss	($21,888)	($5,209)	$41,522	$130,258	$216,296

	FY2024	FY2025	FY2026	FY2027	FY2028
Program Revenue	$ 43,696	$ 87,392	$ 131,088	$ 174,784	$ 174,784
Waivers & Student Aid Fund	$ 2,241	$ 4,482	$ 6,722	$ 8,963	$ 8,963
Central/Campus Revenue	$ 10,084	$ 20,167	$ 30,251	$ 40,335	$ 40,335
EBB UG Payout	$ -	$ -	$ -	$ -	$ -

	FY2024	FY2025	FY2026	FY2027	FY2028
Clear Profit Margin	-39.1%	14.9%	27.8%	39.6%	38.4%
% of Expenses to Total Tuition	117.1%	63.1%	50.2%	38.4%	39.6%

Exhibit E
Library Support

WASHINGTON STATE UNIVERSITY
Libraries

Statement of Library Support

I am writing to state that the existing collections and services of the WSU Libraries are entirely able to support the proposed extension of the master's degree as well as the master's and undergrad certificate in Energy Conscious Construction as put forward by the School of Design and Construction. The program will use resources currently provided by the libraries, and any impact of the new programs on the WSU Libraries' collections, services, and personnel should be minimal. Existing personnel and services can meet the needs of this program.

The focus of this program falls within areas of research and teaching in the field of science that the Libraries' collection policies currently support. The databases and eBooks VCEA Pullman students use on campus are available to Global Campus Students. In addition, online tutorials, guides, book delivery, and other library services are designed to support WSU students taking classes online or in a hybrid model (for more information, see the Library Services for WSU Global Campus website here: http://libguides.libraries.wsu.edu/global).

While the addition of students in the Energy Conscious Construction program may result in more time and attention from the science librarians, book delivery, interlibrary loan services, and online research help services, the program's impact on the Libraries will be minimal. I am confident this program will not burden the Libraries or library staff.

The WSU Libraries are well prepared to meet the needs of students and instructors in the Energy Conscious Construction programs. Thank you to Kelly Newell and the School of Design and Construction for the mindful consultation with the Libraries while proposing the expansion of this program.

Chelsea Leachman
Science & Engineering Librarian
Owen Science Library 115
Washington State University, Pullman
509.335.8527
chelsea.leachman@wsu.edu

Exhibit F
Support from the Dean's Office

WASHINGTON STATE UNIVERSITY

Voiland College of Engineering and Architecture

Date: November 4, 2022

To: Jason Peschel, Interim Director, School of Design and Construction

From: Mary Rezac, Dean, Voiland College of Engineering and Architecture

Subject: Support for Master of Energy Conscious Construction degree through Global Campus

I offer my strong support for the proposal submitted by the School of Design and Construction to launch an online professionally-oriented master's degree through the Global Campus.

The Voiland College of Engineering and Architecture supports the plan for the proposed Master's in Energy Conscious Construction (MECC) degree. With financial support from the Department of Energy, the College will not be contributing startup funds. In addition, with this new degree program planned as a self-sustaining program, the college assumes no financial responsibility for the program if revenues do not meet projections. The School of Design and Construction will assume all financial responsibility for the program.

The MECC degree program will be reviewed annually for effectiveness in learning and building sustainable enrollments. After year four, the Program Director, School of Design and Construction Director, VCEA Director of Online Learning Programs, and I will evaluate the program's success to determine the future of the program.

Thank you, Dr. Omar Al-Hassawi, and the other faculty and staff involved in the development of this program for the commitment to providing educational opportunities to meet the diverse needs of our students, especially students who are unable to access our physical campuses.

PO Box 642250, Pullman, WA 99164-2250 | 509-335-5050 | vcea.wsu.edu | ceainfo@wsu.edu

Exhibit G
Demand Analysis

Master of Energy Conscious Construction
Market opportunity summary December 2022

Demand analysis for Energy Conscious Construction Masters:

- Hanover Research conducted a comprehensive market opportunity scan for WSU Global in 2019, and they found that construction engineering technology/technician was in a high-growth field, indicating that this would be a field with opportunities for new online degree development.
- Hanover Research also found that construction is a top growing career sector, growing but over 6% per year.
- Emsi/Lightcast report showed also that the skills and careers associated with this degree pathway are growing well above the national average, indicating a need for graduates in this area.
- Additionally, in 2022, Hanover Research provided insight into the top 10 fastest growing master's degrees, with Architectural and Building Science/Technology in the 3rd position with a growth rate of 67.7%, indicating student, institutional, and industry investment in this program area.
- Finally, Hanover Research in their 2022 report also listed "sustainability" as an emerging field for institutional investment.

Based on these findings, and the performance of our previously launched master's programs, we predict the following enrollments:

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Enter the fiscal year begin date of program (e.g. 2022 for Fall-21)	**2024**	**2025**	**2026**	**2027**	**2028**
Enter total student headcount enrolled per year	**10**	**15**	**22**	**30**	**35**
Enter student credit hours (estimated), per student, per year	**18**	**18**	**18**	**18**	**18**