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DOC 2017-02 Undergraduate Certificate in Applied Creativity for Transformation

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PROPOSAL TO THE ACADEMIC SENATE

TITLE: Undergraduate Certificate in Applied Creativity for Transformation

SUBMITTED BY: The Institute of Applied Creativity for Transformation (AALI)
                  School of Engineering (Academic sponsor)

DATE: September 1, 2016 (Draft #1)
             October 18, 2016 (Draft #2)
             October 28, 2016 (Draft #3)
             December 7, 2016 (Draft #4)

ACTION: Formal approval: February 17, 2017

REFERENCES: Art. III. B. 1-7; DOC 2015-04

1. Rationale for New Certificate Program
In a recent Adobe for Education article[1], author Tacy Towbridge outlines recent findings from the compensation data provider PayScale published in its *2016 Workforce-Skills Preparedness Report*. "The report details the responses of almost 64,000 hiring managers across a wide range of industries who were asked about the 'skills gap'—the disconnect between the skills students have when they graduate from college and the skills companies need." Towbridge highlighted three specific points:
- 60% of managers said new graduates do not have the critical thinking and problem-solving skills necessary for the job.
- 46% said new graduates lack the necessary communication skills.
- 36% reported new graduates have inadequate interpersonal and teamwork skills

Other recent findings were also outlined in the same Adobe article:
- The World Economic Forum reports[2] that students with social and emotional learning (SEL) skills like critical thinking and problem-solving, creativity, communication, and collaboration are better equipped to succeed in the evolving digital economy.
- Bloomberg[3] analyzed the skills gap among MBAs and found that the skills managers want most but have the most trouble finding include strategic thinking, leadership skills, communication skills, creative problem-solving, and working collaboratively.
- Fast Company[4] describes 2016 as the year of the hybrid job, in which employers want multifaceted employees who have both hard skills like database technology and soft skills like communication and collaboration.

Towbridge asks educational institutions how they intend to help students close the skills gap? She states, "it's clear to us that they need to go beyond teaching traditional skills and make fostering creativity and developing digital skills a priority in the classroom. Many of the skills current grads lack are associated with creativity, from critical thinking to communication to collaboration."

When asked how this specific certificate will address the aforementioned skills gap a recent AACU journal article on Creativity and Innovation by Fernando Lozano and Amanda Sabicer stated, "... efforts to enhance creativity and

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[1] Towbridge, Tacy, *Closing the skills gap: Why creativity is essential to students' workplace success.* Adobe for Education, 2016. blogs.adobe.com/education/2016/07/27/closing-the-skills-gap-why-creativity-is-essential-to-students-workplace-success/ Accessed 22, Aug. 2016.

[2] Soffel, Jenny, *What are the 21st Century Skills Every Student Needs.* World Economic Forum, 2016. www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students Accessed 22, Aug. 2016.

[3] Levy, Francesca and Cannon, Christopher, *The Bloomberg Job Skills Report: What Recruiters Want.* Bloomberg, 2016. http://www.bloomberg.com/graphics/2016-job-skills-report/ Accessed 22, Aug. 2016.

[4] Stephanie Vozza, *Why 2016 is the Year of the Hybrid Job.* Fast Company, 2016. http://www.fastcompany.com/3057619/the-future-of-work/why-2016-is-the-year-of-the-hybrid-job Accessed 22, Aug. 2016.

[5] Stanford 2025, *Purpose Learning: A Look Back from 2100 to the era when Stanford students began declaring missions, not majors.* Stanford

University, 2014. http://www.stanford2025.com/purpose-learning/ Accessed May 2014.

innovation are changing the educational landscape of the United States. These efforts can take many names and forms—clinics, design thinking, entrepreneurial accelerators. But [Lozano and Sabicer] argue here that campus interventions alone are not sufficient...Enhanced creativity should be fostered and guided toward answering "real-life" problems; it should affect the very communities where our schools exist, even as its development prepares students for life after graduation… The main idea is that creativity is not fostered in isolation; rather, creativity is best enhanced when it is part of a collective and diverse ecosystem."

That ecosystem is the University of Dayton and the Marianist charisms and values focused on holistic learning, sign of the times education, service and vocation. UD can only benefit from a focused look at the creative impact of new learning so that innovative, entrepreneurial, social, service and sustainable disciplines can be benchmarks in continuing to answer those evolving real-life problems.

2. Impact on Other Academic Programs and/or Departments

The undergraduate certificate in Applied Creativity for Transformation will introduce students to the creative competencies that today's job market demands, while applying those same skills to the students' diverse disciplines of study with special focus on developing a personal mission, or purpose-based learning design, that is additive to their academic pursuits. Through the introduction of creative theory, critical perspective and innovative immersions within collaborative problem-solving, the student's perception of what is and what can be in their field of study and the world they live in will broaden in creative, critical and innovative ways.

As an applied practice, all Academic programs and departments will have the opportunity to encourage all students who show interest in the certificate program. Currently, there are 12 'pilot' students engaged in the potential certificate process with ~15 interested freshmen and sophomores being advised of the potential certificate model as a second cohort. Thus, the certificate candidate list numbers no more than 30 students. The positive impact on other departments and programs across the university would be specific to student learning with no negative impact to departmental class sizes, revenue reduction and/or competition. Supportive consultation has occurred, specifically regarding certificate impact, with the following people and departmental/programmatic areas:

- School of Engineering (E. Rojas, M. Pinnell, K. Hallinan, B. Hart, R. Blust)
- School of Business Administration (V. Lewis, S. MacDonald)
- College of Arts and Science (D. Poe, G. Neeley, L. Dixon)
- Provost Office (P. Benson, D. Bickford)

The following outlines student certificate impact:
- Certificate requirements are (or forecasted to be) CAP requirements that all students are required to take and/or have multiple sections - SSC 200 and EGR 103
  - Over the next three academic years, there would be no more than 60 students, in total, pursuing the certificate due to Academic Development Coordinator's availability to be a strong one-on-one advisor, educator and mentor.
    - Priority certificate enrollment would be given to sophomores or juniors with a scheduled fifth year. Freshmen will be asked to wait to declare certificate upon their sophomore year if advising scalability was to exceed 60 students total in any given year.
    - These projected 60 students would be freshmen through fifth year seniors and all would be at different points in their certificate process. Thus, no requirement course would see an increase in their section enrollment of more than 20 and only if all 20 students were to take the same specific SSC module at the same time or had all not taken SSC or EGR 103 prior.
- Certificate candidates should not be mistaken as only students who take UDI 371 (ACT I: Creative Confidence Through Critical Perspective) and UDI 372 (ACT II: Innovative Practice Through Creative Confidence). Both 371 and 372 are open to any students with both courses offering two sections of the course in the Fall (UDI 371) and the Spring (UDI 372).

- - ○ Sections are capped at 35 students for a total of 70 students for both course sections with up to 30 seats guaranteed (but can be released if need is not met) to those living at the Institute of Applied Creativity for Transformation (IACT) at ArtStreet; thus guaranteeing at least one section of the courses each year, due to the requirement for course enrollment with acceptance into the IACT Live/Learn community.
      - UDI 371 and UDI 372 sections are held at 5:05pm and 6:35pm on Tuesdays and thus do not conflict with other courses and are free offerings after 18 credit hours thus expanding the opportunity and reach for applied creative learning across the student body.
  - The third, Mission-Based 'Pivot' Elective would not be advised until a student's second year in the program and after they completed both UDI 371 and UDI 372 and have honed their vocational mission as it relates to their degree of study. The final elective will provide intentional decision making for students' disciplinary CAP requirements by enhancing students' creative and critical ability to innovate and complete their experiential Creative Application capstone.
    - ○ Per the bullet point above, students in their third and final year of the certificate process would never number more than 20. Thus, these 20 students would be in enrolled in a diverse amount of CAP offerings, perhaps 2 or 3 students in one CAP elective but per the diverse mission and disciplines of student would never cause unnecessary enrollment disruptions.

We are requesting certificate status rather than seeking a minor for the reasons outlined below and supported by other higher educational institutions nationwide. Northern Iowa University defines "Certificates different from minors as they are more applied in focus." In addition, Certificate programs are interdisciplinary wherein minors generally cover just one field, while certificates include courses from all over the university. This allows for a more diverse educational background and more experiences to enhance vocational acumen.

Certificates examine topics that need to be explored through unconventional content due to high-demand needs or areas of interest not covered by current curricula. For example, University of Georgia offers a New Media certificate which is becoming fairly popular for journalism majors who want a competitive job right after graduation. Journalism is a rapidly evolving degree focus and a certificate, designed with high intention towards career evolution provides a plug into larger, more holistic learning form without being too extensive.

The certificate aims to provide students an intentional opportunity to learn from the University's entire rich, education base as outlined by our University Marianist Tradition, "Collaboration for adaptation and change recognizes the diverse gifts and talents of all members of the community and brings them together to realize a common mission in the midst of new and challenging circumstances."

3. Prospective enrollment
The numbers and student majors listed below specifically outline the current academic process and enrollment of existing applied creativity courses in addition to outlining current prospective students:
2014 - 2015 (Pilot Year)
Fall UDI 371: Creative Confidence through Critical Perspective - 68 students (1st year - 5th year)
Spring UDI 372: Innovative Application through Creative Confidence - 53 students (3rd year - 5th year)
Disciplines included: ACC, BIO, CEE, CHM, CJS, CME, CMM, CPE, ECE, EES, EHA, ELE, EMS, ENG, ENG HRS, ENT MKT, EPT, ESM, EVB, EYA, FIN, GDN, HST, IBM MKT, IET, MCM, MCT, MEE, MKT, MTE, MUE, MUT, OPS, PHO, PLW, PSY, THR, THR CMM, UNS, VCD
2015-2016 (Year 1)
Fall UDI 371: Creative Confidence through Critical Perspective - 68 students (1st year - 5th year)
Spring UDI 372: Innovative Application through Creative Confidence - 61 students (1st year - 5th year)
Disciplines included: ACC, ACC OPS, ART, BIO, CEE, CJS PLW, CME, CMM, CPS, DEN, ECB FIN, EEP, ELE, ENG, ENG PSY, ERL, ESM, FIN, HST, INS, MCM, MCT, MED, MEE, MKT, MKT MIS, MTE, MUE, MUP, MUT, OPS, PHO, PSY, SOC, THR, VAR
2016-2017 (Year 2)
Fall UDI 371: Creative Confidence through Critical Perspective - ~54 students (1st year - 5th year)
Spring UDI 372: Innovative Application through Creative Confidence - TBD

Disciplines included: ACC, ACC FIN, BIO, CEE, CMM, CPE, CPS MTH, ECB, ECE, ECT, EEP, EES, EHA, EIM, EPT, EYA HST, FIN, FIN ENT, GDN, HOA, HRS WGS, HST, IBM MKT, IET, INB, MED, MEE, MKT , MTE, MTH, MUS, POL, PSY ENG, PSY WGS, SOC HRS, UBU, UNA
Pilot Certificate Cohort Advising - 12 students (3rd years)
Disciplines include: Bio (Pre-Med), Pre-Dentistry, Communication (E-Media), Mechanical Engineering (Sustainability, Energy and the Environment), Bio (Pharmaceutical Chemistry), Psychology (Clinical), Civil Engineering, Mechanical Engineering (Aerospace), Exercise Physiology, Biology

4. Proposed curriculum - i.e. prerequisites, courses, sequences, unique features (if any)
In understanding the application of creativity as value in today's job market, University's must look to educate not only the design of creativity as practice but even more important is the understanding of application.

Applied Creativity is not simply a mindset but a mindset with focus on Humanity-Centered Design. Unlike other national models for creative confidence at Stanford and Ideo where Human-Centered Design exists to propel design thinking forward for the individual person. Humanity-Centered is built to provide creative design for mankind; humans as a group.

This certificate in applied creativity has nearly 100 contact hours focused on the theories and practices of creativity within the four UDI 'creative enrichment' credit hours. EGR 103 will also provide nearly another 30-40 additional contact hours focused on creative design and creative making.

The SSC course provides the 45-48 contact hours needed to focus on the greater humanity. To apply creativity is to understand when and why it is to be used as positive innovation for the greater good and the greater group. The focus on literature review gives certificate candidates the skill to situate their mission focus within the context of the wider community within their given field. It helps to reinforce and strengthen the certificate's first outcome, critical perspective, by providing learning of process in reporting one's critical review of the relevant literature in order to creatively innovate content within said literature.

The concept of 'creative enrichment' is a radical approach that provides a new framework for UDI courses to contribute to an unconventional undergraduate certificate model. The 4 UDI courses required for the Undergraduate Certificate in Applied Creativity for Transformation total 60 contact hours with nearly 100 overall hours once installation design and capstone deliverables are successfully completed. If, in comparison, the certificate's SSC and EGR requirement are within 40 to 50 contact hours for 3 academic hours this certificate's 60 contact hours and 100 total hours of creative enrichment would equal at least the 1 credit hour to justify the 9 total credit hours needed for Undergraduate certification (Senate DOC 2015-04 (page 3)).

Requirements:
SSC 200 - 3 hours (CAP)
- **SSC 200: Social Sciences Integrated CAP**
  - Provide students exposure to a trio of social science perspectives that will prep the students to begin thinking about the impact of interdisciplinary competencies in relation to critical evaluation of the times.
  - Student learning outcomes become key transferables to the Certificate and the Student's Mission-Based Learning Design
    - CAP Student Learning Outcomes: Scholarship, Critical Evaluation of our Times and Diversity become foundational
    - Knowledge of social science methods of inquiry will provide the needed content to begin building student's mission.
    - Knowledge of how various social theories facilitate the critical and imaginative evaluation of the ethical, historical, social, political, technological, economic, or ecological challenges will aid in the confidence development of explicit creative and critical perspectives.
    - Knowledge of how context, difference, and/or positionality shape social issues and the power to shape social issues become the beginning tools for innovative application
  - Students' chosen themes can be applicable to their individualized mission development, but focus will be placed on SSC 200 Student Learning Outcomes.

EGR 103 - 2 hours (potential CAP requirement but ongoing process)

- **EGR 103: Engineering Innovation**
  - Provide entry level experience in rapid prototyping and human centered design. Thus, preparing certificate students with the tangibility of innovative capacities to truly build their creative confidence acumen; in addition to exposing non-engineer majors to the impact of technology and product for a societal need.
  - Potential CAP Student Learning Outcomes: Community and Practical Wisdom
    - Community: This course will build on the UD emphasis on service learning by having the students participate in a project to serve others of a diverse background embodying human diversity and asking students to interact with people, being present to that needed collaborative empathy key to Mission-Based learning success
    - Practical Wisdom: Students will learn that the engineering design process can be applied to their own field to solve many different types of problems. Holistically looking at the evolution and recognition of virtues and values from an innovation perspective providing building blocks towards the 'why' of our student missions from a design perspective.

Mission-Based CAP elective - 3 hours
- (please review advising model below)

UDI 371 - .25 hours of "creative enrichment"
- **UDI 371: Creative Confidence Through Critical Perspective**
  - Students are introduced to applied creative theory and critical thinking through the Institute of Applied Creativity for Transformation's (IACT) transdisciplinary, experimental sessions focused on developing inquiry, reflection and confidence through critical and creative experimentation (with special focus given to the White Box Gallery installation themes).

UDI 372 - .25 hours of "creative enrichment"
- **UDI 372: Innovative Practice Through Creative Confidence**
  - Students are grouped based on their degrees of study to experiment with creative theory as innovative practice within their disciplines — at the Institute of Applied Creativity for Transformation (IACT). Students will design a collaborative session exploring applied creativity as a tool and mindset for innovative change in solving social, commercial, professional and academic challenges.

UDI 471 - .25 hours of "creative enrichment"
- **The Creative Design (collaborate and design)**
  - Part one of the two part experiential learning capstone, will focus on identifying community partners, understanding collaborative mission possibilities between Certificate cohort and framing the deliverable for installation design in relation to both discipline of study and community implementation.

UDI 472 - .25 hours of "creative enrichment"
- **The Creative Application (implement and innovate)**
  - The capstone of the certificate is the execution and realization of the student's mission-based learning design challenged through the lens of their degree focus. Students must demonstrate the use of critical, creative and innovative learned experiences for a socially, culturally, industrial, business or scientific problem-solving outcome. The result will be an immersive installation featuring sight, space, sound and emotion as a solution or marketable idea deliverable akin to the White Box Gallery installations studied in UDI 371 and 372.

9 Total Hours of Academic Credit
180 - 196 Total Applied Creative Contact Hours

STUDENT REQUIREMENTS FOR SUCCESSFUL COMPLETION OF CERTIFICATE:

Taylor Jones — Certificate Candidate #1:

Mission-Based Declaration: Challenge inaccessible and archaic modes of travel — by demonstrating an innovative design of U.S. high-speed rails that cater to individuals with low-spectrum autism and disabilities.

Major: Mechanical Engineering

EGR 103: Engineering Innovation
This course is geared towards skill development in the areas of requirements analysis, creativity, conceptual design, problem-solving processes, prototyping, teamwork and project communications. This is accomplished through entry level experience in rapid prototyping and human centered design. This course builds on the emphasis of service learning, community and practical wisdom; which are integral to the certificate's student learning outcomes of innovative application. This student will be able to specifically use the methodology of this course for design concepts of innovative high-speed rails.

SSC 200 H6: Cities: Our Past, Our Future (POL, SOC, ECO)
The SSC 200 courses provides the 45-48 contact hours needed to focus on the greater humanity. To apply creativity is to understand when and why it is to be used as positive innovation for the greater good and the greater group. The focus on literature review gives certificate candidates the skill to situate their mission focus within the context of the wider community through their given field. It helps to reinforce and strengthen the certificate's first outcome, critical perspective, by providing learning of process in reporting one's critical review of the relevant literature in order to creatively innovate content within said literature.

Through the utilization of this primary research material, the student is enabled with a skillset to critically examine political, social, and economic frameworks and systems of cities; all of which are fundamental to the student's mission of innovating modes of travel for the accessible of individuals with low-spectrum autism and disabilities within populated spaces. The student will have not only an engineering framework but also the wherewithal of understanding the implications of and on community, in the spirit of service.

PHL 316: Engineering Ethics (Mission-Based CAP Elective)
This crossing boundaries practical ethical action course is designed to cross the boundaries between the theoretical and the practical and between the liberal arts and the applied fields. It empowers the student with the perspective to conceptualize and enact the synergies between the critical perspectives certificate outcomes obtained through literature reviews of SSC 200 and the innovative application outcome; which is satisfied through EGR 103's creative problem-solving, conceptual designs and human centered prototyping. Further, the mission-based CAP elective is integral to the student's mission, as the student is looking to adapt modes of travel for individuals with low-spectrum autism. As an engineering major with civil and human rights design through engineering, being knowledgeable of ethical reasoning and practical application from an interdisciplinary perspective is paramount. As such, the student will be able to provide a holistic view as an engineer, who is pursuing change in accessibility.

UDI 371: Creative Confidence Through Critical Perspective (fall only)

UDI 372: Innovative Practice Through Creative Confidence (spring only)

UDI 471: The Creative Design (fall only)

UDI 472: The Creative Application (spring only)
   - Stander presentation of Creative Application including extended engagement of final deliverable until end of school year

Note: Please review above content and course syllabuses for additional course information of UDI creative enrichment courses.

Certificate Prerequisites and Process:
   - *Certificate can only be declared after successful completion of 371. At the time of declaration, the student can meet with IACT academic personnel to comprise mission-based focus.*
   - *Students must enroll in UDI 371 and UDI 372 in congruent semesters.*
   - *Mission-based CAP elective course must be approved and taken after successful completion of UDI 372.*
   - *Students must enroll in UDI 471 and UDI 472 in congruent semesters.*

Morgan Smith — Certificate Candidate #2:

Mission-Based Declaration: To create an action-oriented immersion that raises solution-based awareness of PTSD, through a mock re-entry community of artistic therapy and psychology for soldiers and their families.

Major: Psychology

EGR 103: Engineering Innovation
This course is geared towards skill development in the areas of requirements analysis, creativity, conceptual design, problem-solving processes, prototyping, teamwork, and project communications. This is accomplished through entry level experience in rapid prototyping and human centered design. Additionally, the course will expose this student who is a non-engineer major to the impact of an engineering-based skillset for societal needs. This course builds on the emphasis of service learning, community and practical wisdom; which are integral for the certificate's student learning outcomes of innovative application. This student will be able to specifically take the methodology of this course to establish components of the mock re-entry community.

SSC 200 C1: Engaged Scholarship for Homelessness: A Service-Learning Course (PSY, SOC, HRS)
The SSC 200 courses provides the 45-48 contact hours needed to focus on the greater humanity. To apply creativity is to understand when and why it is to be used as positive innovation for the greater good and the greater group. The focus on literature review gives certificate candidates the skill to situate their mission focus within the context of the wider community through their given field. It helps to reinforce and strengthen the certificate's first outcome, critical perspective, by providing learning of process in reporting one's critical review of the relevant literature in order to creatively innovate content within said literature.

Through the utilization of this primary research material and foundational skills to perform literature reviews, the student is enabled with a skillset to critically examine homelessness and displacement; which veterans with PTSD often encounter. This course will do so through an integrative interdisciplinary framework for practical application. Further, the service-learning requirement of this course also requires the students to implement a participatory community action project at a homeless shelter. Given the student's mission, the student will be well-equipped with a foundation to creatively demonstrate a mock re-entry community for the certificate capstone.

SOC 350. Art and Social Practice (Mission-Based CAP Elective)
This crossing boundaries practical ethical action course is designed to cross the boundaries between the theoretical and the practical and between the liberal arts and the applied fields. It empowers the student with the perspective to conceptualize and enact the synergies between the critical perspectives and the innovative application certificate outcomes obtained through literature reviews of SSC 200 and EGR 103's creative problem-solving, conceptual designs and human centered prototyping. Further, the mission-based CAP elective is integral to the student's mission, as the diversity and social justice requirement of this course examines marginalized populations and which systems, institutions and/or practices obstruct the attainment of equality. The mission of this specific student also calls for artistic therapy and psychology practices in PTSD-friendly communities; which is cultivated in this course through an interdisciplinary approach to organize and effective social change in community and/or studio settings.

UDI 371: Creative Confidence Through Critical Perspective (fall only)

UDI 372: Innovative Practice Through Creative Confidence (spring only)

UDI 471: The Creative Design (fall only)

UDI 472: The Creative Application (spring only)
   ○ Stander presentation of Creative Application including extended engagement of final deliverable until end of school year

Note: Please review above content and course syllabuses for additional course information of UDI creative enrichment courses.

Certificate Prerequisites and Process:
● *Certificate can only be declared after successful completion of 371. At the time of declaration, the student can meet with IACT academic personnel to comprise mission-based focus.*

- *Students must enroll in UDI 371 and UDI 372 in congruent semesters.*
- *Mission-based CAP elective course must be approved and taken after successful completion of UDI 372.*
- *Students must enroll in UDI 471 and UDI 472 in congruent semesters.*

Addition Details:
The process for students to qualify for admission to the certificate program would be per recommendation by faculty and/or staff, in good standing with their declared major's academic requirement and an advised declaration of their Purpose-Based learning design wherein their degree of study and their certificate learning would culminate. *Students would be required to complete and pass UDI 371 prior to enrolling in the certificate program.*

A GPA of at least 3.0 must be earned in the coursework used toward the certificate, all of which must be completed within the period of time specified in the requirements for the certificate. With the approval of the major department, courses used to satisfy requirements of a certificate may also be applied toward an undergraduate major.

Though traditional certificates across the higher educational landscape offer opportunities for non-degree seeking individuals to become candidates, at this juncture, this specific certificate will be designed only for undergraduate students enrolled at the University of Dayton. The unique design and maturing benchmarking of the certificate will provide additional insight towards supporting the option for non-degree students to pursue the certificate as outlined through the Ecommons Senate documentation. As community, regional and national interest pique the time allowed for assessment will then provide the proper scaffolding to enroll non-degree seeking candidates.

CAP Courses and Advising+:
Consultation with Molly Schaller, Co-Chair of Habits of Inquiry and Reflection (HIR) Fellows occured to develop CAP Course selections, vocational development and advising+ models for the certificate. The final report research of the HIR Fellows was delivered as a white paper and it serves as a reference guide in the and advising+ design of the certificate to advance the University's vocational pursuit as a student learning outcome.

HIR Fellows/members are as follows: Molly Schaller, Co-Chair, Steven Neiheisel, Co-Chair, Irene Dickey, Jason Eckert, Katie Kinnucan-Welsch, Suki Kwon, Crystal Sullivan, Cari Wallace and Stephen Wilhoit.

Given that vocational exploration and pursuits are integral to the University's mission and vision, the third and final, 'pivot' elective (i.e., specific to each student's mission) will be advised to hone the student's vocational mission, as it relates to the student's degree of study. Per HIR Fellows (2016), vocation can be defined as "answering a call to discover one's unique gifts and employ them in service for the common good in ways that are personally satisfying and bring meaning to one's life" (pg. 3).

The HIR Fellows noted a lack of a systematic approach to meet the learning outcome. In the committee's findings, they noted the following:

Collectively, [students] expressed a desire to discuss and examine vocation in college, yet, as one student put it, this notion of such a deep exploration is "terrifying." (HIR Fellows, 2016, pg. 4).

To further assist our students within this model, the Academic Development Coordinator of the IACT will use an advising+ model (i.e., advisor, coach and mentor) of vocation as "vocation core mentors or peer mentors could play a key role" (HIR Fellows, 2016, pg. 4). Further, the HIR Fellows (2016) noted that students found mentors that asked the right questions to be highly valuably, but students rarely identified an advisor as a key figure for vocational exploration (pg. 5).

With an in-depth understanding of the student's mission-based pursuits, the adviser+ will use the following framework provided by the HIR Fellows Report (2016) to give the student ample opportunities to discern and act on their vocations:
- discussing their vocation and calling openly
- identifying their unique, defining gifts, talents, skills, interests, and experiences
- articulating who they are and how they can serve others in community
- examining activities that bring meaning and joy to their life

- questioning their life's meaning and purpose
- learning and practicing the skills of effective discernment in the context of community
- reflecting on their responsibilities toward others
- exploring the vocational implications of their education and professional training
- preparing themselves for a lifetime of vocational exploration

The following questions are also essential to developing students' sense of purpose and reason for being:
- What do you love?
- What does the world need?
- What can you be paid for?
- What are you good at?

These fundamental questions along with the ones previously listed will aid the students in discernment and self-discovery of their mission, vocation, profession and passion; when cultivated together will embody the wholeness of mission-based learning and their vocational reason for being.

Through a series of continued conversations of personal, professional and vocational development, the pivot-elective choices that align with the student learning outcomes of the university, certificate and the student's development level will be more clearly identified. Students will not be advised until a student's second year in the program and after they have successfully completed both UDI 371 and UDI 372 and have the final elective will provide intentionality to the selection of the student's CAP requirements. All courses advised and approved for the pivot-elective will be CAP approved.

5. Administrative arrangements including the academic unit(s) and department(s) sponsoring the certificate program, and the certificate coordinator responsible for management of the certificate program, advising students, etc.
Administrative obligations will be housed in the Institute of Applied Creativity for Transformation at ArtStreet and the four-person professional staff employed by the IACT. The academic sponsor, School of Engineering, will be a formal collaborator as outlined in their letter of sponsorship attached to this proposal but NO administrative or financial responsibilities is part of the official sponsorship.
Certificate coordination, recruitment, and communication will be led by the Director of the IACT with certificate student advisement led by the IACT Academic Development Coordinator.
Students will engage in the certificate process through the experience within the ACT I course. Students will enroll in the ACT course and it's current 70 seats via resident requirement at the IACT Live/Learn or through academic recommendation and advisement.
All current educators within the ACT curriculum do so voluntarily with the understanding there is a $300 honorarium provided if applicable (based on 100% rule). Currently, there are nearly 60 educators who self-select and identify as IACT Collective Educators made up of faculty, staff and community creatives who put in roughly 7 hours per session they teach or mentor. A total of 35 Tri-Teaching and ACT II mentor opportunities are available every year within the IACT curricular model (nine Tri-Teaching Fall sessions and eight ACT Mentor Spring sessions).

6. Resource implications for faculty/staff, facilities, and the library.
The sustainability of resources for the proposed certificate is directly associated to:
- Annual budget provided the Institute of Applied Creativity for Transformation at ArtStreet from the Provost Office. This budget has been awarded since the inception of ArtStreet in 2004 and has been a regular budget line for AALI since then.
  - This budget provides the resource support for all administrative needs of IACT including materials, programs, and student needs
- Research dollars earned from the annual Collaboration Accelerator summer research and innovation lab since 2015 produced by the IACT staff in collaboration with the Provost Office, AFRL and other regional constituents.

○ This budget provides the resource support for current and continuing Educators who teach, mentor and develop curriculum within IACT

Other courses directly involved with the proposed certificate:

● EGR 103 - CAP affiliation is in conversation leading to prospective non-engineering additional section. This section would invite up to 20 new students from annual new certificate cohort though any engineer students within the cohort will have taken EGR 103 already and thus 20 would be the max of additional student within any EGR 103 section annually.

● SSC 200 - any theme could see up to 20 additional new certificate cohort students annually but with the diverse theme offerings annually, these potentially 20 students will be advised to seek themes that will directly explore their Mission-Based declaration. In addition, due to the SSC CAP requirement many certificate students will have take a module prior to their declaration of certificate dramatically lessening the potential for 20 students impacting any one theme in one semester

● Mission-Based CAP elective - per IACT Academic Development Coordinator advisement process (outlined above) only CAP courses, specifically CAP courses directly crossing both Major-Based elective requirement, Mission-Based learning need for the student with focus on Vocation SLO, will be allowed as an elective. Within the second year of the certificate program will students be advised to take this course thus only 20 students over two semesters will enroll in the CAP offered course.

7. Projected additional investment (if any).

As outlined throughout this proposal, resources and financial investment into this certificate has already been modeled for nearly three years with sustainability provided by:

● Provost Office (IACT annual budget)
● Collaboration Accelerator research funding

Courses and other departments providing sponsorship and consultation are not financially encumbered by the annual 20-student cohort who would be seeking out their courses, if they had not already successfully completed the course prior to declaring the certificate.

There are no expectations for any of the Collective of faculty, staff and community Educators to commit to teaching or mentoring annually. The freedom of creative involvement and the inclusive opportunity for all on the campus and surrounding community provides a rich, fertile collaborative environment what continues to engage in new learning trends across their respective disciplines and fields of study.