

The completed and signed proposal should be submitted by the Dean's Office to: curriculumplanning@asu.edu.

Before academic units can advertise undergraduate certificates or include them in their offerings as described in the university catalogs, they must be recommended for approval by the Senate Curriculum and Academic Programs Committee and the University Senate, and be approved by the University Provost.

### Definition and minimum requirements:

These are the minimum requirements for approval. Individual undergraduate certificates may have additional requirements.

An undergraduate certificate is a programmatic or linked series of courses from a single field or one that crosses disciplinary boundaries and may be free-standing or affiliated with a degree program. The certificate provides a structured and focused set of courses that can be used to enhance a student's baccalaureate experience or professional development.

An undergraduate certificate program:

- Requires a minimum of 15 semester hours of which at least 12 semester hours must be upper division
- Requires a minimum grade of "C" or better for all upper division courses
- Consists of courses that must directly relate in whole or large part to the purpose of the certificate. Example: Geographic area certificates must include only courses specific to the title of the certificate, other than a non-English language
- Is cross disciplinary; or,
  - Certified by a professional or accredited organization/governmental agency; or,
  - Clearly leads to advanced specialization in a field; or,
  - Is granted to a program that does not currently have a major

is granted to a program that	t does not currently have a major	
College/School/Institute:	School for the Future of Innovation in Society	
Department/Division/School:		
Proposing Faculty Group (if applicable):		
Proposed Certificate Name:	Innovation for Impact	
Requested Effective Date:	2016-17	
Delivery method:	On-campus only (ground courses and/or iCourses)	
Note: Once students elect a campus or On-line option, students will not be able to move back and forth 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.  Campus/Locations: Indicate all locations where this program will be offered.		
Downtown Phoenix	Polytechnic Tempe  West Other:	
Proposal Contact Name: Jameson Wetmore Phone number: 480-727-0750	Title: Associate Professor  Email: Jameson.Wetmore@asu.edu	
	DEAN APPROVAL(S)	
This proposal has been approved by all necessary unit and College/School levels of review. I recommend implementation of the proposed organizational change.  College/School/Division Dean name: David Guston		
Signature College/School/Division Dean name: (if more than one college involved)	Date: 10/30/2015	
Signature	<b>Date:</b> / /20	
Note: An electronic signature, an email from	the dean or dean's designee, or a PDF of the signed signature page is acceptable.	



#### 1. Overview

### **A.** Provide a brief description of the new certificate.

Innovation allows for amazing possibilities, and within each one of us is the potential to create, apply, research, and scale innovation to realize impact goals. Grounded in a use-inspired framework with a focus on transforming society, the Innovation for Impact certificate provides students a learning experience designed to help them develop expertise to investigate, innovate, and cultivate an impact innovation. The core of the certificate program is designed so students work collaboratively on an issue they care about. They will investigate a problematic situation or imagine a possible future state, then apply their emerging expertise to innovative tactics for a desired outcome. Throughout the experience, students will take three core classes, each of which has one-credit application "fieldwork" in which they will iterate their understandings as they are applying expert models and core concepts to effectively leverage innovation for impact. Consistent with the design aspirations of the New American University, students will engage use-inspired research that is focused on real-world issues and will work as part of an interdisciplinary team to bring about a better future.

В.	This proposed certificate (check one):
	☐ Is cross disciplinary; or
	☐ Is certified by a professional or accredited organization/governmental agency; or
	☐ Clearly leads to advanced specialization in a field; or,
	☐ Is granted to a program that does not currently have a major.

#### **C.** Why should this be a certificate rather than a concentration or a minor?

Grounded in the assumption that all students across campus can do great things with technology, we wanted to provide a complete experience through which students can experience success and apply it to their disciplinary focus. The goal being that the work represents a level of expertise and capacity, which if available as a certificate could be a value-add for students as a stand-alone validation of their achievement, which could be useful for future employment opportunities regardless of their disciplinary areas.

# **D.** Affiliation

If the certificate program is affiliated with a degree program, include a brief statement of how it will complement the program. If it is not affiliated with a degree program, incorporate a statement as to how it will provide an opportunity for a student to gain knowledge or skills not already available at ASU.

By anchoring the certificate in the core program courses, students will benefit from the core competencies associated with the program at the same time they apply their emerging understandings to personally-meaningful and socially-significant problems. It provides an opportunity to reach more students across the university, offering a "bounded" experience with portfolio deliverables and developing a rich appreciation for the relationship of technology and society and their role in mediating this relationship.

#### E. Demand

Explain the need for the new certificate (e.g., market demand, interdisciplinary considerations).

Technology currently affects every aspect of our lives, and each one of us is continually affected by the expansion of technology in society. With the growing ubiquity of technology, we need to expand the prowess beyond those directly concerned with technology and society issues to reach the population en masse. This certificate will grow the impact and address the emerging interest of students in all disciplines in leveraging innovation for impact.

### F. Projected enrollment

What are enrollment projections for the first three years?

	1 <sup>st</sup> Year	2 <sup>nd</sup> Year (Yr. 1 continuing + new entering)	3 <sup>rd</sup> Year  (Yr. 1 & 2 continuing + new entering)
Number of Students (Headcount)	08	15	25



### 2. Support and Impact

#### A. Faculty governance

Provide a supporting letter from the chair of the academic unit verifying that the proposed certificate has received faculty approval through appropriate governance procedures in the unit and that the unit has the resources to support the certificate as presented in the proposal, without impacting core program resources.

See attached letter

# **B.** Other related programs

Identify other <u>related</u> ASU programs and outline how the new certificate will complement these existing ASU programs. (If applicable, statements of support from potentially-affected academic unit administrators need to be included with this proposal submission.)

It will complement the games and impact certificate currently being offered in education, providing a deeper dive into innovation more generally. In fact, games as a medium derives its power for impact in relation to the ways the designed products are integrated into larger technology solutions, enabling ecosystems, and a growing capacity of each user to see themselves as capable. This program would be an important complement to that program, but offering an expanded view of impact to non-game technologies. In fact, if possible, students who had both certificates would be quite prepared to do important work with games and technology more generally. For students choosing between the two programs, both offer distinct yet complementary offerings so that students primarily interested in games would benefit from more core gaming courses as opposed to the technology in society more general courses.

#### C. Letter(s) of support

Provide a supporting letter from each college/school dean from which individual courses are taken.

#### 3. Student Learning Outcomes and Assessment Methods

#### A. Knowledge, competencies, and skills

List the knowledge, competencies, and skills students should have when they graduate from the proposed degree program. You can find examples of program Learning Outcomes at (<a href="https://uoeee.asu.edu/plan-outcomes">https://uoeee.asu.edu/plan-outcomes</a>).

At the end of the certificate students will need to be able to:

- 1. Demonstrate the ability to participate as team member on an inquiry project;
- 2. Connect design decisions to particular assumptions;
- 3. Leverage both Agile Startup and Lean Canvas models; and
- 4. Manage stakeholder alignment and ecosystem integration.

#### B. Assessment

Describe the plan and methods to assess whether students have achieved the knowledge, competencies and skills identified in the Learning Outcomes. You can find examples of assessment methods at (<a href="https://uoeee.asu.edu/creating-plan">https://uoeee.asu.edu/creating-plan</a>).

All of the learning that happens throughout this certificate builds towards the final course: FIS 481 Application Journey. Four of the major assignments are designed to assess the success of these learning outcomes.

- 1. This measure will be met if at least 70% of the students enrolled in the certificate receive grades of B- or better on the "Collaborative Work and Team Management" assignment in FIS 481.
- 2. This measure will be met if at least 70% of the students enrolled in the certificate receive grades of B- or better on the "Grounded Claims and Storied Truths" assignment in FIS 481.
- 3. This measure will be met if at least 70% of the students enrolled in the certificate receive grades of B- or better on the "Impact Innovation Design Vision" assignment in FIS 481.
- 4. This measure will be met if at least 70% of the students enrolled in the certificate receive grades of B- or better on the "Critical Analysis & Ongoing Optimization" assignment in FIS 481.



### 4. Academic Curriculum and Requirements

#### A. Admissions criteria

List the admissions criteria for the proposed certificate. If they are identical to the admission criteria for the existing major and degree program under which this certificate will be established, please note that here.

The certificate will only be open to ASU degree-seeking students in any major.

### B. Curricular structure

Provide the curricular structure for this certificate. Be specific in listing required courses and specify the total minimum number of hours required for the certificate.

# Required certificate courses

Prefix	Number	Title	Is this a new Course?	Credit Hours
FIS	201	Innovation in Society	Yes	3
FIS	305	Ways of Knowing	Yes	3
FIS	307	Navigating Futures	Yes	3
FIS	371	Innovation for Impact: Impact Journey	Yes	1
FIS	372	Innovation for Impact: Inquiry Journey	Yes	1
FIS	373	Innovation for Impact: Innovation Journey	Yes	1
FIS	481	Innovation for Impact: Application Journey	Yes	3
			Section sub-total:	15

# **Elective certificate courses**

Prefix	Number	Title	Is this a new Course?	Credit Hours

Section sub-total:



#### Other certificate requirements

Credit Hours

E.g. - Capstone experience, internship, clinical requirements, field studies, foreign language skills as applicable

The certificate itself involves elements of field studies, apprenticing on advanced student projects, and eventually completing a culminating project. While the three-credit courses provide an important foundation, the one-credit modules and culminating experience enable each student the opportunity to use what they are learning to build a meaningful vision, if not application of, an innovation for impact. Consistent with the design aspirations of the New American University, students will engage in use-inspired research focused on a community issue and working as part of an interdisciplinary team to bring about a better future. While not all students will turn their innovation into real-world impact, all student innovators will be expected to try, instantiating their understanding and commitment into an actual innovation and implementation plan with the requirement that work is principled, leverages course work, and is critically reflected upon.

Section sub-total:

Total minimum credit hours required for certificate 15

C. Minimum residency requirement

How many hours of the certificate must be ASU credit? 12

**New Courses** 

Provide a brief course description for each new course.

#### FIS 201 Innovation in Society (3 credits)

In the modern age, governments, multinational corporations, and civil society movements have rallied around the idea that innovation is necessary for the maintenance of health, prosperity, and the good life in general. This course will examine the vast implications of this promise, the reasons why it is so powerful, and explanations for why it falls short. We will examine what innovation is, who funds it, and why some innovations succeed while others fail. In doing so we will link innovation with society to see how change happens differently in different places and how diverse populations are impacted.

## FIS 305 Ways of Knowing (3 credits)

This course introduces students to research, beginning with the concept of research itself and its various purposes, highlighting knowledge and how it is created in different disciplinary approaches. Students will be exposed to historical and philosophical underpinnings of how research is conceptualized, presented, and implemented, including what constitutes information, knowledge and evidence. While material that would be in a traditional research design and methodology course will be introduced in this course, the emphasis will uniquely focus on knowledge creation, innovation, the nature of disciplinary knowledge, and its impact on society. The epistemological differences in problem identification and approaches to inquiry will be explored in the disciplinary perspectives of engineering, the sciences, and in the social sciences.

### FIS 307 Navigating Futures (3 credits)

This course is designed to introduce students to foresight methods and their potentials as entry-points into public discussions about near- and mid-range technoscientific developments. Four elements will constitute the organizing axis of the course: (i) the history of foresight exercises in government agencies and business organizations; (ii) the methods of four forms of foresight exercises (technology foresight, science and technology studies, anticipatory governance, and scenario development); (iii) a comparative assessment of the these dominant forms; and (iv) a group-based application exercise using one of the foresight methods.

# FIS 481 Innovation for Impact: Application Journey (3-6 credit)

As a culminating experience for the innovation for impact certificate, this journey brings together the previous experiences and emerging expertise to investigate, innovate, and cultivate an impact innovation to achieve impact goals. Starting with building a grounded appreciation for a particular impact outcome, participants then design an innovation to realize a better future state, grounding this work in lessons with respect to logic models, design fictions, agile startups, and rapid prototyping. Some participants will simply test a component and produce a reflective analysis, while others will expand credit requirements and iterate to achieve transformative outcomes.



#### FIS 371 Innovation for Impact: Impact Journey (1 credit)

As an introductory experience to the innovation for impact certificate, this journey builds on the ideas, concepts, and experiences engaged in FIS 201 "Innovation in Society." Innovation allows for amazing possibilities, and within each one of us is the potential to create, apply, research, and scale innovation to realize impact goals. Grounded in a use-inspired framework with a focus on transforming society, in this one-credit journey module you will engage innovation for impact with a particular focus on what constitutes and how one achieves sustainable and scalable outcomes.

#### FIS 372 Innovation for Impact: Inquiry Journey (1 credit)

As part of the innovation for impact certificate, this journey builds on the ideas, concepts, and experiences engaged in FIS 305 "Ways of Knowing." Grounded in a use-inspired framework with a focus on transforming society, in this one-credit module you will engage innovation for impact with a particular focus on meaning making, grounded claims, and what it means to gather, analyze, construct, and advance meaningful assertions and storied truths that advance productive claims about the potential of an innovation to realize impact goals.

# FIS 373 Innovation for Impact: Innovation Journey (1 credit)

As part of the innovation for impact certificate, this journey builds on the ideas, concepts, and experiences engaged in FIS 307 "Navigating Futures." Grounded in a use-inspired framework with a focus on transforming society, in this one-credit module students will engage innovation for impact with a focus on imagining, designing, developing, and optimizing a particular innovation such that it is likely to realize impact goals. Beyond product-centric perspectives that locate change within the innovation, this journey emphasizes an ecological perspective that positions innovation as a shared accomplishment distributed across the designed innovation, engaged participants, prepared facilitators, and a responsive ecosystem.

Note: All new required courses should be submitted in Curriculum Changemaker and ready for the University Provost's Office approval before this certificate is put on Curriculum and Academic Programs Committee (CAPC) agenda.



### 5. Administration and Resources

#### A. Administration

How will the proposed certificate be administered (including admissions, student advisement, retention, etc.)?

This new certificate program will be supported by the existing infrastructure of the School for the Future of Innovation in Society including business staff, event and communication staff, and the current academic support staff of a Coordinator, Academic Programs and a Coordinator Sr., Education Programs. Additional staff will be hired as enrollment dictates.

#### B. Resources

What are the resource implications for the proposed certificate, including any projected budget needs? Will new books, library holdings, equipment, laboratory space and/or personnel be required now or in the future? If multiple units/programs will collaborate in offering this certificate please discuss the resource contribution of each participating program. Letters of support must be included from all academic units that will commit resources to this certificate.

The certificate program will require studio space for the culminating studio project.

### C. Primary Faculty

List the primary faculty participants regarding this proposed certificate. For interdisciplinary certificates, please include the relevant names of faculty members from across the University.

Name	Title	Area(s) of Specialization as they relate to proposed certificate
Sasha Barab	Professor	design- and impact-based research methodologies
Gregg Zachary	Professor of Practice	interplay of technology and culture; science and politics
Michael Bennett	Associate Research Professor	emerging technoscience, nanotechnologies
Mary Jane Parmentier	Clinical Associate Professor	role of technology in economic, social, and political development
Cynthia Selin	Assistant Professor	future-oriented deliberation
David Guston	Professor	research and development policy

#### 6. Additional Materials

- A. Complete and attach the Appendix document.
- B. Provide one or more model programs of study (if appropriate).
- C. Attach other information that will be useful to the review committees and the Office of the University Provost.

### **APPENDIX**

# OPERATIONAL INFORMATION FOR UNDERGRADUATE CERTIFICATES

(This information is used to populate the Degree Search/catalog website.

Please consider the student audience in creating your text.)

# A. Proposed Certificate Name: Innovation for Impact

Description (150 words maximum)

This certificate will enable students to cultivate the knowledge, skills, and critical dispositions necessary to leverage the power of innovation to achieve personally meaningful and socially significant impact. It is grounded in the belief that each of us can do great things. This program will provide tools and concepts to synthesize research from courses across disciplines in social sciences, humanities, natural sciences and engineering—from across campus as well as across the globe. Students will identify a problematic condition or aspirational future and work with peers, mentors, and the community to produce innovations that cultivate a better future for society.

condi	ition or aspirational future and work with peers, mentors, and the conociety.	
В.	Contact and Support Information  Building Name, code and room number: (Search ASU map)  Program office telephone number: (i.e. 480/965-2100)  Program Email Address:  Program Website Address:	INTDSB 366 480/727-8787 sfisadvising@asu.edu https://sfis.asu.edu
C.	<b>Program Requirements:</b> Provide applicable information regarding specific course lists, or academic retention requirements.	the program such as curricular restrictions or requirements,
	Required Courses: FIS 201 Innovation in Society (3) FIS 305 Ways of Knowing (3) FIS 307 Navigating Futures (3) FIS 371 Innovation for Impact: Impact Journey (1) FIS 372 Innovation for Impact: Inquiry Journey (1) FIS 373 Innovation for Impact: Innovation Journey (1) FIS 481 Innovation for Impact: Application Journey (3)*	
	*The prerequisites for this course are FIS 371 Innovation for Impact Inquiry Journey (1) and FIS 373 Innovation for Impact: Inquiry Journal Credits: 15	
	Depending upon a student's undergraduate program of study, prere requirements of this certificate.	quisite courses may be needed in order to complete the
D.	Additional Admission Requirements If applicable list any admiss than and/or in addition to the university minimum undergraduate ac	
	Any student admitted to study at ASU may complete a certificate. Services online application. Please contact the School for Innovation certificate.	
E.	Delivery/Campus Information Delivery:	On-campus only (ground courses and/or iCourses)
a	Note: Once students elect a campus or On-line option, students will n and the ASU Online options. Approval from the Office of the Provost required to offer programs through ASU Online.	
F.	Campus/Locations:  Indicate <u>all</u> locations where this program will be offered.  ☐ Downtown Phoenix ☐ Polytechnic ☒ Tempe	☐ West Other:

Subject: RE: School for the Future of Innovation in Society impact statement

Date: Friday, October 30, 2015 8:50:36 AM Mountain Standard Time

From: Kyle Squires

To: David Guston

CC: James Collofello

Dave,

Thanks for the note and update concerning the degrees – looks like you all have come up with a solid set of initial offerings.

I shared your note with Jim Collofello (Sr. Associate Dean for Academic and Student Affairs) and we also do not currently see any large overlap with Fulton majors and minors, and do agree that some of these could be of interest to Engineering majors.

Concerning courses for your students, it is true that we tend to be quite full these days and that makes it challenging to accommodate non-majors. We continue to brainstorm and work on plans to better address our enrollments and if successful that will make it easier to accommodate non-majors. Let's keep the communication channels open.

Thanks again for looping me in – good luck!

-- Kyle

From: David Guston

Sent: Thursday, October 29, 2015 5:14 PM

To: Kyle Squires < squires@asu.edu>

**Subject:** School for the Future of Innovation in Society impact statement

Importance: High

Kyle,

As you know, the School for the Future of Innovation in Society was launched just a few months ago. One of our first big steps in the process of turning a research center into a school is the development of a number of undergraduate programs, and I wanted to give you a heads up on some of our plans as we develop a BA, a BS, a Minor, and a Certificate. We're a little off-sequence in our proposals, but we're working with the Provost's office in an effort to get the programs on the books in time for the 2016-2017 school year.

I wanted to discuss the potential impact on FSE. I don't foresee any large overlap between any of the FSE majors or minors. In fact I think we may be able to offer some programs that could benefit your students. Our certificate on "Innovation for Impact," for instance, would certainly be open to engineering students who want practice working to ensure that ideas can translate into real-world change. The minor in "Innovation in Society" would also be available for students who want to know more about the social and political aspects of science and technology in their studies.

In many ways we see our programs as a bridge between the social sciences, natural sciences and engineering. As part of this vision, we intent to require our BS students to take three courses in natural science, math, engineering, or quantitative social science beyond their university distribution

Subject: RE: School for the Future of Innovation in Society Undergraduate Programs

Date: Thursday, October 29, 2015 6:49:19 AM Mountain Standard Time

From: Duane Roen
To: Nalini Chhetri

**CC:** David Guston, Jameson Wetmore, Judith Weeks

Nalini,

Thanks for the note about your proposals for these exciting degrees.

I am happy to support them.

Best, Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College
Arizona State University | Undergraduate Academic Services Building, Room 228
Box 871901 | Tempe, AZ 85287-1901
Voice: 480-727-6513 | Fax: 480-727-6344| Email: duane.roen@asu.edu

From: Nalini Chhetri

**Sent:** Wednesday, October 28, 2015 11:31 PM **To:** Duane Roen < Duane.Roen@asu.edu>

Cc: David Guston < David.Guston@asu.edu>; Jameson Wetmore < Jameson.Wetmore@asu.edu>; Judith

Weeks < Judith. Weeks@asu.edu>

Subject: School for the Future of Innovation in Society Undergraduate Programs

Dear Duane;

As you know, the School for the Future of Innovation in Society (SFIS) was launched just a few months ago. One of our first big steps in the process of turning a research center (CSPO) into a School is the development of undergraduate programs, and I wanted to brief you on some of our plans. We're a little off-sequence in our proposals, but we're working with the Provost's office in an effort to get the programs on the books in time for the 2016-2017 academic year. I am part of the undergraduate committee which Associate Professor Jamey Wetmore is chairing and we are planning our BA, BS, Minor, and Certificate programs that we and the senior administration hope will be ready for fall 2016.

We wanted to discuss any potential impact on CLS. Mark Searle and Fred also advised us to touch base with you on this matter. We do not foresee any significant overlap between the SFIS offerings and any of the CLS undergraduate programs. Still with the STS minor, we have been quite cognizant of potential overlaps and have been very careful to ensure our core courses do not do so. The courses we have proposed are at different levels and cover different topics in STS. So in looking at what we're proposing we do not think there is a single course that overlaps between the two. In fact we think, given its interdisciplinary sensibilities we expect that CLS students could benefit from our course offerings, our minor and our certificate program. Our certificate on "Innovation for Impact," for instance, would certainly be open to CLS students who want practice working to ensure that ideas can translate into real-world change. The minor in "Innovation in Society" would also be available for students who want to know more about the role of

Subject: RE: SFIS course impact statements

Date: Thursday, October 29, 2015 8:32:49 PM Mountain Standard Time

From: Duane Roen
To: David Guston

**CC:** Jameson Wetmore, Nalini Chhetri, Judith Weeks

I have no objections, Dave.

Good luck with the new courses and degree.

Best, Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Letters and Sciences
Dean, University College
228 Undergraduate Academic Services Building
Arizona State University
P.O. Box 871901, Tempe, AZ 85287-1901
Phone: 480-727-6513 | duane.roen@asu.edu

From: David Guston

**Sent:** Thursday, October 29, 2015 5:10 PM **To:** Duane Roen < Duane.Roen@asu.edu>

Cc: Jameson Wetmore <Jameson.Wetmore@asu.edu>; Nalini Chhetri <Nalini.Chhetri@asu.edu>; Judith

Weeks < Judith. Weeks@asu.edu>

Subject: SFIS course impact statements

Importance: High

Dear Duane,

Thank you again for your prompt response about the proposed undergraduate programs in SFIS.

We wanted to give you a heads up on two points of possible overlap as far as specific courses.

As part of our proposed courses we'd like to offer two that are similar to offerings in your STS major. The first, FIS 311 "Politics, Markets, and Innovation" may have some similarities with STS 260 "Politics of Science and Technology." It will differ from your offering in two important ways: First, we will be teaching it as an upper division course and second we will be spending a significant amount of the course focusing on markets and the role of corporations. The second course, FIS 337 "Innovation and Global Development" may have some similarities with your STS 110 "Global Technology and Development." In this case as well, our offering will be at the upper division and the course will examine science as well as technology. You should find short descriptions of these courses below.

These courses may be options for your students to take if they would like to build on their work in your degree program and examine these areas in more detail.

We will be submitting these courses shortly and would like to include your input on the impact of adding these courses.

Subject: Re: School for the Future of Innovation in Society impact statement

Date: Friday, October 30, 2015 7:55:56 AM Mountain Standard Time

From: Alexandra Brewis Slade

To: David Guston

CC: Jameson Wetmore, Nalini Chhetri, Judith Weeks, Alissa Ruth

Priority: High

SHESC is delighted to support all.

Is we haven't already, we might want a permanent FIS crosslist for ASB 344 — so can can add it to your new program mix and directly schedule as makes sense to you folks.

Alex

Alexandra Brewis Slade, President's Professor, Director, and AVP <a href="https://webapp4.asu.edu/directory/person/855688">https://webapp4.asu.edu/directory/person/855688</a>

From: David Guston < <u>David.Guston@asu.edu</u>>
Date: Thursday, October 29, 2015 at 5:26 PM
To: Alex Brewis <alex.brewis@asu.edu>

Cc: Jameson Wetmore <Jameson.Wetmore@asu.edu>, Nalini Chhetri <Nalini.Chhetri@asu.edu>, Judith

Weeks < Judith. Weeks@asu.edu>

Subject: School for the Future of Innovation in Society impact statement

Alex,

As you know, the School for the Future of Innovation in Society was launched just a few months ago. One of our first big steps in the process of turning a research center into a school is the development of a number of undergraduate programs, and I wanted to give you a heads up on some of our plans as we develop a BA, a BS, a Minor, and a Certificate. We're a little off-sequence in our proposals, but we're working with the Provost's office in an effort to get the programs on the books in time for the 2016-2017 school year.

I wanted to discuss the potential impact on SHESC. I don't foresee any large overlap between SFIS plans and any of the SHESC majors or minors. In fact I think we may be able to offer some programs your students could benefit from. Our certificate on "Innovation for Impact," for instance, would certainly be open to SHESC students who want practice working to ensure that ideas can translate into real-world change. The minor in "Innovation in Society" would also be available for students who want to know more about the social and political aspects of science, technology and innovation in their studies.

The one course that would be similar is FIS 331 "Technology and the Modern World." That course would have some overlap with ASB 344 "Technology and Society. Our 331 course would be a bit different because it would focus explicitly on systems rather than artifacts, but there is enough similarity that we would be happy to crosslist the courses if you would like.

We also believe that our students would benefit greatly from some of the courses offered in your

From:

Christopher Boone

Sent:

November 02, 2015 9:29 AM

To:

Jameson Wetmore

Cc:

Christopher Boone (cgboone@asu.edu); Nalini Chhetri; David Guston; Judith Weeks

Subject:

Re: School for the Future of Innovation in Society undergraduate programs

Categories:

**IMPACT** 

Jamey,

I support the courses, degrees, minor, and certificate you outline below.

Chris

Christopher Boone Dean, School of Sustainability Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability



P.O. Box 875502 | Tempe, Arizona | 85287-5502 PH: 480-965-2236 | Main: 480-965-2975 http://cgboone.personal.asu.edu | Twitter: @cgboone Dean's Executive Assistant: Lorraine.Protocollo@asu.edu Stay connected! Website | Facebook | Twitter

On Oct 29, 2015, at 6:03 PM, Jameson Wetmore < Jameson. Wetmore@asu.edu> wrote:

Hi Chris,

I tried to get this to you yesterday, but for some reason I couldn't get it to your e-mail. I forwarded it to Lorraine, but I thought I'd try resending it to you today.

Hope you are well!

Jamey

Jameson M. Wetmore

Associate Professor, School for the Future of Innovation in Society

Co-director, Center for Engagement and Training in Science & Society

Arizona State University

From: Jameson Wetmore

Sent: Wednesday, October 28, 2015 6:28 PM

To: 'Christopher Boone'

Cc: Nalini Chhetri; David Guston; Judith Weeks

Subject: School for the Future of Innovation in Society undergraduate programs

Dear Chris,

To:

Subject:

From: Paul LePore Sent: Wednesday, November 04, 2015 11:11 AM To: Jameson Wetmore Cc: Elizabeth Wentz; Laura Hanish Subject: FW: School for the Future of Innovation in Society Undergraduate Programs
Hi Jamie,
See note from SSFD. Thanks Laura and Libby.
PL
PAUL C. LEPORE, Ph.D. Associate Dean College of Liberal Arts and Sciences Foundation Building, Suite 110 Arizona State University   P.O. Box 876605   Tempe, Arizona 85287-6605 480.965.6506   Fax: 480.965.2110   e-mail: paul.lepore@asu.edu  ASU College of Liberal Arts and Sciences — Transforming learning, discovery and lives
From: Elizabeth Wentz Sent: Wednesday, November 04, 2015 10:27 AM To: Paul LePore; Laura Hanish Cc: Patrick Kenney Subject: FW: School for the Future of Innovation in Society Undergraduate Programs  Dear Paul,  Laura and SSFD can provide input.
Libby
From: Laura Hanish < Laura. Hanish@asu.edu >  Date: Tuesday, November 3, 2015 at 4:24 PM  To: Elizabeth Wentz < wentz@asu.edu >  Subject: RE: School for the Future of Innovation in Society Undergraduate Programs
Hi Libby,
We are happy to work with the School for the Future of Innovation in Society to cross list SOC 334 and are able to work with the School regarding other issues as needed.
Thanks,
Laura

RE: School for the Future of Innovation in Society Undergraduate Programs

Jameson Wetmore

Laura D. Hanish, Ph.D.

Professor and Interim Director, T. Denny Sanford School of Social and Family Dynamics
Executive Director, Lives of Girls and Boys Enterprise
Co-Director, Dion Initiative

Arizona State University | P.O. Box 873701 | Tempe, Arizona 85287-3701

Phone: 480-965-8133 | E-mail: Laura.Hanish@asu.edu

From: Elizabeth Wentz

Sent: Monday, November 02, 2015 7:30 PM

To: DL.WG.LA.DEAN.SS.ACD

**Cc:** Gregory Freye

Subject: FW: School for the Future of Innovation in Society Undergraduate Programs

Dear chairs/directors,

As you know, units are asked to weigh in on new degree programs. The new School for the Future of Innovation in Society is planning several new degrees. Please respond by the end of this week if you want to comment on the proposed degrees.

Libby

From: Jameson Wetmore

Sent: Wednesday, October 28, 2015 6:34 PM

To: Paul LePore

Cc: David Guston; Nalini Chhetri; Judith Weeks

Subject: School for the Future of Innovation in Society Undergraduate Programs

Dear Paul,

As you know, the School for the Future of Innovation in Society was launched just a few months ago. One of our first big steps in the process of turning a research center into a school is the development of a number of undergraduate programs, and I wanted to reach out to you to give you a heads up on some of our plans. Right now I'm leading the committee that is developing a BA, a BS, a Minor, and a Certificate. We're a little off-sequence in our proposals, but we're working with the Provost's office in an effort to get the programs on the books in time for the 2016-2017 school year.

I wanted to touch base with you to discuss the potential impact on CLAS. I don't foresee any large overlap between any of the CLAS majors or minors. The Biology and Society program has some similarities, but in looking at what we're proposing I don't think there is a single course that overlaps between the two. In fact I think we may be able to offer some programs your students could benefit from. Our certificate on "Innovation for Impact," for instance, would certainly be open to CLAS students who want practice working to ensure that ideas can translate into real-world change. The minor in "Innovation in Society" would also be available for students who want to know more about the role of science and technology in their studies.

There would be some overlap in a few courses in our program. For instance we'd like to offer a 300 level course in "Technology in the Modern World" that would be similar to the ASB 344 / SOC 334 Technology and Society course. We could possible crosslist those courses if you like.

We would like to support our students being heavily involved in CLAS courses as well. For instance all our majors would be required to take two "upper division related area electives" and we'd like that list to include a number of courses from majors such as Global Health, Justice, Biology and Society, and Women's Studies. And we would also like to send a number of our BS students to take courses in CLAS by requiring them to take three courses in natural science, math,

Thanks!

From:	David Guston	
Sent:	November 04, 2015 2:45 PM	
То:	Richard Fabes	
Cc:	Jameson Wetmore; Nalini Chhetri; Judith Weeks	
Subject:	Re: School for the Future of Innovation in Society impact statement	
Importance:	High	
Thanks, Rick!		
David H. Guston	School for the Fatour of	
Founding Director and Professor, S  Innovation in Society  Director Content for Nanotachnology		
Director, <u>Center for Nanotechnolo</u> Co-director, <u>Consortium for Science</u>		
Director, Virtual Institute for Resp		
(delivery) Interdisciplinary B 366 1120 S. Cady Mall		
(mail)		
PO Box 875603		
Tempe, AZ 85287-5603		
480-727-8829		
480-727-8791 (fax)		
480-266-1273 (cell)		
I am now the editor-in-chief of the <u>Journal of Responsible Innovation</u> , published by Taylor & Francis.		
From: Richard Fabes < rfabes@a		
Date: Wednesday, November 4,		
To: David Guston < david.guston		
<b>Subject:</b> Ke: School for the Futur	re of Innovation in Society impact statement	
Hi Dave,		
We have no problems with an	y of this. We would like to have FIS 331 cross-listed.	
Rick		
On 10/30/15, 11:25 AM, Dav	id Guston wrote:	
On 10/30/13, 11.23 AWI, Dav.	ia Gasion widic.	
Rick		

From:

Nalini Chhetri

Sent:

November 09, 2015 9:45 PM

To:

Judith Weeks

Jameson Wetmore

Cc: Subject:

FW: School for the Future of Innovation in Society Undergraduate Programs

Importance:

High

Wrong Judith copied.

Yeah! We have everyone's, it seems.

From: Marlene Tromp < Marlene. Tromp@asu.edu> Date: Monday, November 9, 2015 at 6:16 PM To: David Guston < David.Guston@asu.edu>

Cc: Jameson Wetmore < Jameson. Wetmore@asu.edu>, Nalini Chhetri < Nalini. Chhetri@asu.edu>, Judith Guston

<imguston@comcast.net>

Subject: Re: School for the Future of Innovation in Society Undergraduate Programs

Dear Dave,

My apologies for the delay. I was waiting to hear back from one Director. New College has no concerns about these programs and wishes you all the best in launching!

Sincerely, Marlene

Dr. Marlene Tromp, Vice Provost and Dean New College of Interdisciplinary Arts and Sciences 4701 W. Thunderbird Rd., Glendale, AZ 85306-4908 P.O. Box 37100, M/C 1251, Phoenix AZ 85069-7100 Arizona State University

Office: 602-543-7000 Fax: 602-543-7070

marlene.tromp@asu.edu newcollege.asu.edu

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From: David Guston < David.Guston@asu.edu> Date: Monday, November 9, 2015 at 3:12 PM **To:** Marlene Tromp <marlene.tromp@asu.edu>

Cc: Jameson Wetmore < Jameson. Wetmore@asu.edu>, Nalini Chhetri < Nalini. Chhetri@asu.edu>, Judith Guston

<imguston@comcast.net>

Subject: Re: School for the Future of Innovation in Society Undergraduate Programs

Merlene

From:

Jameson Wetmore

Sent:

November 10, 2015 5:22 PM

To:

Judith Weeks

Subject:

FW: Response to Innovation Studies proposals

Hi Judy,

Not sure if I forwarded this to you yet or not.

This is SST. We should have this listed with Jen's Inequality course.

jamey

From: Kathryn Nakagawa

Sent: Monday, November 09, 2015 8:30 AM

To: Jameson Wetmore

Cc: Mary Fonow; Jenny Smith

**Subject:** Response to Innovation Studies proposals

Dear Jamey,

Thank you for the opportunity to review your proposed undergraduate programs in Innovation in Society. The focus on preparing students to "build more inclusive societies" and "analyze the diverse local and global futures" that innovation will enable is an exciting area of study!

As the program develops, we would encourage you to think very broadly about what is meant by inclusion and diversity and more systematically and thoughtfully include the study of race, gender, class and disability into your curriculum. Although we noted that a few of our JUS and WST courses are listed as potential electives, there are a number of other courses that might also be helpful to your program development. These are listed below. Please let me know if you need additional information.

Sincerely, Kathy

Kathy Nakagawa
Associate Professor & Associate Director of Undergraduate Studies
School of Social Transformation
Arizona State University
nakagawa@asu.edu

# List of SST suggested courses for Innovation Studies degrees, minor and certificate

AFR 317	Genes, Race & Society
AFR 380	Health Issues in the African American Society
APA 210	Introduction to Ethnic Studies in the U.S.
APA 352	Race, Space and the Production of Inequality
JUS 325	Global Politics and Human Rights

JUS 370	Cultural Diversity and Justice
JUS 415	Gender and International Development
SST 235	Disability, Justice and Advocacy
WST 340	Gender, Science and Technology
WST 365	Women and International Health
WST 447	Gender, Culture and Development



#### **MEMORANDUM**

DATE: January 12, 2016

TO: David Guston, Director

School for the Future of Innovation in Society

FROM: Mari Koerner, Dean

Mary Lou Fulton Teachers College

RE: Undergraduate Certificate in Innovation for Impact

The Mary Lou Fulton Teachers College has no objection to the School for the Future of Innovation in Society offering the Undergraduate Certificate in Innovation for Impact, and indeed if your school can make it of use for education students, that would be a big plus. I would invite you to discuss this with our recruiters and advisors.