

**College/School/Institute:** 

## PROPOSAL TO ESTABLISH A NEW UNDERGRADUATE DEGREE PROGRAM

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

College of Integrative Sciences and Arts

Is this an official joint degree program?  No, this is not a joint degree program  If "Yes" List all the additional college(s)/school(s)/institute(s) that will be involved in offering the degree program and providing the necessary resources. Note: All units offering this program must have collaborated in the proposal development and completed the appropriate unit and college/school approvals.  BA-Bachelor of Arts  If other; provide degree type title and proposed abbreviation:  Name of degree program (major):  Are any concentrations to be established under this degree program?  No, concentrations will not be established.  Sa a program fee required?  No, a program fee is not required.  2017-18  2017-18  Delivery method:  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  Title:  Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:  Duane Roen  Duane Roen  Duane Roen  Date:  On-Campus development and competed the degree program and providing the mecessary unit and college/School levels of review.  Date:	Department/Division/School:	
BA-Bachelor of Arts   History of Science, Ideas and Innovation   No., concentrations will not be established.   No., a program fee is not required.   No., a program fee is not required.   No. a	Proposing Faculty Group (if applicable): Is this an official joint degree program?	
Name of degree type title and proposed abbreviation:  Name of degree program (major):  History of Science, Ideas and Innovation  No, concentrations will not be established.  No, a program fee is not required.  No, a program fee is not required.  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  Title:  Name:  Ian Moulton  Title:  Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:  Ouance Roen  Signature  Duance Roen  Date:  Date:  Date:  Date:  / /20	necessary resources. Note: All units offering	this program must have collaborated in the proposal development and completed the
Name of degree program (major):  Are any concentrations to be established under this degree program?  No, concentrations will not be established.  No, a program fee required?  What is the first catalog year available for students to select on the undergraduate application for this this program?  Delivery method:  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  Title: Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:    Duane Roen	Degree type:	
Are any concentrations to be established under this degree program?  Is a program fee required?  What is the first catalog year available for students to select on the undergraduate application for this this program?  Delivery method:  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  Proposal Contact  Name:  Ian Moulton  Title: Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:    Duane Roen		
Is a program fee required?  What is the first catalog year available for students to select on the undergraduate application for this this program?  Delivery method:  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  Proposal Contact  Name:  Ian Moulton  Title: Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:    Duane Roen		•
What is the first catalog year available for students to select on the undergraduate application for this this program?  Delivery method:  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:  Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:    Duane Roen	-	
undergraduate application for this this program?  Delivery method:  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  Title:  Professor and Faculty Head, Interdisciplinary Humanities and Communication  Phone number: (480)727-1172  Email: ian.moulton@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:  Signature  College/School/Division Dean name:  (if more than one college involved)  Signature  Date: 07/07/2016		1 0
Delivery method:  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:  Ian Moulton  Title: Professor and Faculty Head, Interdisciplinary Humanities and Communication Email: ian.moulton@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:  Signature  College/School/Division Dean name:  (if more than one college involved)  Signature  Date:  Da		
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:  Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:  Signature  College/School/Division Dean name:  One than one college involved)  Signature  Date:		
Name: Ian Moulton Phone number: (480)727-1172  Title: Professor and Faculty Head, Interdisciplinary Humanities and Communication ian.moulton@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:  Signature College/School/Division Dean name:  (if more than one college involved) Signature  Date: 07/07/2016	the ASU Online options. Approval from the crequired to offer programs through ASU On Campus/Locations: indicate all locations whe Downtown Phoenix	Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is cline.  ere this program will be offered.
Phone number: (480)727-1172  Email: Humanities and Communication ian.moulton@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:  Signature  Duane Roen		
Phone number: (480)727-1172  Email: ian.moulton@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:  Signature  College/School/Division Dean name: (if more than one college involved)  Signature  Date:	Name:	
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:  Signature College/School/Division Dean name:  (if more than one college involved)  Signature  Date: / /20	<b>Phone number:</b> (480)727-1172	
I recommend implementation of the proposed organizational change.  College/School/Division Dean name:  Signature  College/School/Division Dean name:  (if more than one college involved)  Signature  Duane Roen  Date: 07/07/2016  Date: / /20	DEAN APPROVAL(S)	
College/School/Division Dean name:  Signature  College/School/Division Dean name: (if more than one college involved)  Signature  Duane Roen  Date: 07/07/2016  Date: / /20		•
Signature College/School/Division Dean name: (if more than one college involved) Signature  Duane H. Rom Date: 07/07/2016  Date: / /20	I recommend	implementation of the proposed organizational change.
Signature Date: //20	Signature	vane H. Roam
		Date: / /20



## 1. Purpose and Nature of Program

Provide a brief program description. Include the distinctive features of the program that make it unique.

Leveraging the place of the Polytechnic campus as a hub of innovation, the History of Science, Ideas and Innovation program provides students with a grounding in the social and intellectual issues central to understanding the role of science, technology and ideas from past to present. This interdisciplinary degree encourages students to combine course work in the natural and applied sciences with historical and philosophical approaches to social knowledge. Students majoring or minoring in History of Science, Ideas and Innovation graduate with a foundation for advanced work in the humanities, the sciences, or in interdisciplinary fields bridging between written and technical work.

### 2. 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 (https://uoeee.asu.edu/plan-outcomes).

- 1. Research Skills: Graduates of the History of Science, Ideas and Innovation program will develop the ability to analyze primary and secondary sources, thus demonstrating advanced research skills.
- 2. Oral Communication Skills: Graduates of the History of Science, Ideas and Innovation program will be able to advance and support an argument about the past in an oral presentation.
- 3. Graduates of the History of Science, Ideas and Innovation program will demonstrate an awareness of the nature and goals of an historical discipline, including an awareness of the complexity of the past and the uncertainty of the historical record.
- 4. Graduates of the History of Science, Ideas and Innovation program will be able to demonstrate knowledge and problem-solving skills in analyzing contemporary and historical events related to science, ideas, innovation, and technology.

## **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 (https://uoeee.asu.edu/creating-plan).

Program Learning Outcomes 1-4 will be measured using a Direct Measure of the Capstone project/paper as completed and defended orally in HST 495 (Capstone). Program Learning Outcomes 1-4 will also be measured using an Indirect Measure, consisting of a student survey/focus group and/or exit surveys or interviews upon graduation.

## 3. Academic Curriculum and Requirements

#### A. Major Map.

Attach a copy of the "proposed" major map for this degree program and each concentration(s) to be offered. Instructions on how to create a "proposed major map" in BAMM can be found in the Build a Major Map Training Guide.

## B. Summary of credit hours required for this program

Total credit hours must be 120 and include first year composition, general studies, core/required courses, program specific electives, and any additional requirements (e.g., concentration credits).



Requirements		Credit Hours
First Year Composition		6
ASU 101 (or Equivalent)		1
General Studies		41
Core/required courses		6
Program specific electives		42
Additional requirements	(Related Area Field)	9
Other; please explain	(Non-designated electives)	15
	Total	120



#### C. Core/Required Courses.

i. Total required and/or core course credit hours:

6

ii. List the name, prefix, and credit hours for each required/core course for this program

```
*HST 280: History of Science, Ideas and Innovation (3) HST 495: Methods of Historical Inquiry (3)
```

#### D. Program Specific Electives.

i. Total required program elective credit hours:

42

ii. List the name, prefix, and credit hours for any program specific electives for this program:

Note: HST 380/381/382/482 may be repeated when topics differ.

```
*HST 380 Studies in the History of Science (3)
*HST 381 Studies in the History of Ideas (3)
*HST 382 Studies in the History of Innovation and Technology (3)
*HST 482 Writing and the History of Science, Ideas and Technology (3)

***HST 294 Special Topics (3)
HST 309 Exploration and Empire (3)
HST 318 History of Engineering (3)
HST 319 History of Aviation (3)

***HST 394 Special Topics (3)

***HST 494 Special Topics (3)
```

- \*\*HST 301 Global History of Health (3)
- \*\*HST 308 History and Philosophy of Sustainability (3)
- \*\*HST 312 History of Women in Science and Medicine (3)
- \*\*HST 345 Environmental History (3)
- \*\*HST 385 History of Chinese Medicine (3)
- \*\*HST 484 Internship (1-12)
- \* New course proposed for degree, materials attached
- \*\* Existing course that has not been taught by Interdisciplinary Humanities and Communication before
- \*\*\* When topics are appropriate as approved by advisor; course may be repeated for up to 9 credits as appropriate

#### E. Additional Program Requirements, if any:

List and describe any capstone experiences, milestone, and/or additional requirements.

9 credits in a single Related Area Field, chosen in consultation with academic advisor.



## F. Concentrations

- i. Are any concentrations to be established under this degree program? No, concentrations will not be established.
- ii. If yes, are concentrations required? (Select One)
- iii. List courses & additional requirements for the proposed concentration (s):

Concentration Name	Total credit hours	Core/Required Courses for Concentration (Prefix, # & Title)	Total Core credit hours	Program Specific Electives (include course name and prefix)	Total Elective credit hours	Additional Requirements (i.e. milestones, capstones)
				<u>-</u>		



#### 4. New Course Development

#### A. Will a new course prefix (es) be required for this degree program? No

If yes, list prefix name(s) (i.e. ENG- English)

Note: A request for a New Prefix form must be completed for each new prefix required and submitted with this proposal: http://provost.asu.edu/files/shared/curriculum/Prefix\_Request.doc.

#### B. New Courses Required for Proposed Degree Program.

List all new courses required for this program, including course prefix, number and course description.

HST 280 History of Science, Ideas and Innovation.

Fast-paced introduction to the intertwined histories of science, ideas and technological innovation, as they shape the globe from the ancients to the present.

HST 380 Studies in the History of Science.

Major themes in the history of science with varying topics.

HST 381 Studies in the History of Ideas.

Major themes in the history of ideas with varying topics.

HST 382 Studies in the History of Innovation and Technology.

Studies the development and impact of innovation processes and technology on society, culture, and environment throughout history. Specific themes and topics vary.

HST 482 Writing and the History of Science, Ideas and Technology.

Writing-intensive course examines intersections between texts and major themes in the history of science and technology.

Note: New course requests must be submitted electronically via Curriculum ChangeMaker and undergo all internal university review and approval steps including those at the unit, college, and university levels.

#### 5. Program Need

Explain why the university needs to offer this program (include target audience and market).

Leveraging the Polytechnic campus's place as a hub of innovation, this degree program provides students with a grounding in the social and intellectual issues central to understanding the role of science in the historical world. The History of Science, Ideas and Innovation major and minor program trains master learners who are prepared to critically examine the social and cultural contexts of technology and science, and it also intends to address a critical curriculum gap for students who seek to transition from the sciences to the humanities. We intend to offer an undergraduate program at ASU that permits students to move fluidly between course work in history, science, and technology, attracting students who seek broader perspectives on science, ideas, and innovation and those who want to analyze the transformation of society through the introduction of new methods, practices and logics.

At the Polytechnic campus, undergraduates already uniquely benefit from individualized instruction through small class size, and our program will offer several opportunities for ongoing mentorship and professionalization. All major students are assigned a faculty mentor who meets with the student once per semester and may oversee a specialized program of reading and research at the upper-division level. The faculty mentorship component of the program also contributes to the development of community among Polytechnic campus faculty and across other ASU campuses through training workshops and informal colloquia centered on mentoring.

### 6. Impact on Other Programs

List other academic units that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs). Attach letters of collaboration/support from impacted programs.

Since this program has a new and unique focus that differentiates it from existing ASU undergraduate degrees in History, and since it will be offered face-to-face at the Polytechnic campus rather than online, we do not anticipate any negative impact on enrollment in existing programs. Letters of support from various impacted units are attached.



## 7. Projected Enrollment

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

	5-YEAR PROJECTED ANNUAL ENROLLMENT						
	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)	4 <sup>th</sup> Year (Yrs 1, 2, 3 continuing + new entering)	5th Year (Yrs 1, 2, 3, 4 continuing + new entering)		
Number of Students Majoring (Headcount)	5	10	15	20	25		



## 8. Accreditation or Licensing Requirements

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

N/A

### 9. Faculty & Staff

### A. Current faculty

List the name, rank, highest degree, area of specialization/expertise and estimate of the level of involvement of all current faculties who will teach in the program.

Eric Nystrom, Assistant Professor, Ph.D., History of Engineering/Science/Technology, 2 courses/semester Eric Oberle, Assistant Professor, Ph.D., History of Ideas, 1 course/semester beginning Spring 2017 Brooks Simpson, Foundation Professor, Ph.D., History (War and Technology), offering 1 course periodically Leandra Swanner, Assistant Professor, Ph.D., History of Science, 2 courses/semester Valerie Adams, Lecturer, Ph.D., History (War and Technology, Atomic Age, Aviation History), 1+ courses per semester Debra Neill, Instructor, Ph.D., History of Engineering, Exploration/Empire, Science and Exploration, History of Science, History of Ideas, 2+ courses per semester

#### B. New Faculty:

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

None additional required.

#### C. Administration of the program.

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

None additional required.

#### 10. Resources (necessary to launch and sustain the program)

## A. Required resources:

Describe any new resources required for this program's success, such as new support staff, new facilities, new library resources, new technology resources, etc.

None above normal requirements.

#### **B.** Resource acquisition:

Explain how the resources to support this program will be obtained.

N/A



## **APPENDIX** OPERATIONAL INFORMATION FOR UNDERGRADUATE PROGRAMS

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

1. Program Name (Major): History of Science, Ideas and Innovation

## **Program Description** (150 words maximum)

Leveraging the Polytechnic campus as a hub of innovation, the history of science, ideas and innovation program provides students with a grounding in the social and intellectual issues central to understanding the role of science, technology and ideas from past to present. This transdisciplinary degree encourages students to combine course work in the natural and applied sciences with historical and philosophical approaches to social knowledge. Students majoring or minoring in the history of science, ideas and innovation program graduate with a foundation for advanced work in the humanities, the sciences or in transdisciplinary fields bridging written and technical work.

3. (	Contact	and	Support	Information
------	---------	-----	---------	-------------

4. D

5. C

A

Program Email	telephone nun Address:	m number: aber: ( <i>i.e. 480/965</i> -	-2100)	480 cis	NCA 25 0/727-11 a@asu.e	72 du			
Program Webs	ite Address:			ntt	ps://cisa.	.asu.eau			
Delivery/Campus	Information D	elivery:		On-car	npus onl	y (groun	d courses and	/or iCourses)	
Note: Once student and the ASU Online Dean) is required to	e options. Appr o offer progran	oval from the Offic is through ASU O	ce of the nline.	University	Provost		v		
Campus/Locations	<b>s:</b> indicate <u><b>all</b></u> l	ocations where thi	s progra	m will be o	offered.				
☐ Downtown P	hoenix 🛚	Polytechnic		Tempe		West	Other:		
Additional Progra	m Description	Information							
A. Additional pro	-			No					
B. Does this progr	ram have a seco	ond language requi	irement?	No.					

#### **Career Opportunities & Concentrations**

Provide a brief description of career opportunities available for this degree program. If program will have concentrations, provide a brief description for each concentration. (150 words maximum)

History of science, ideas and innovation graduates are prepared for successful careers in a wide range of fields, including science and technical writing, consulting, museum studies, the digital humanities and other fields that benefit from transdisciplinary exchange. Graduates are also prepared to enter advanced programs in history and science as well as law and medical schools.

#### **Additional Admission Requirements**

If applicable list any admission requirements (freshman and/or transfer) that are higher than and/or in addition to the university minimum undergraduate admission requirements.)

N/A



#### 9. Keywords

List all keywords used to search for this program. Keywords should be specific to the proposed program.

history, humanities, science, technology, innovation, interdisciplinary

#### 10. Advising Committee Code

List the existing advising committee code to be associated with this degree.

UGLS06 CLS Polytechnic Campus Advising Committee

Note: If a new advising committee needs to be created, please complete the following form: Proposal to create an undergraduate advising committee

## 11. First Required Math Course

List the first math course required in the major map. MAT 142

#### 12. WUE Eligible:

Has a request been submitted to the Provost by the Dean to consider this degree program as eligible for WUE? Yes *Note: No action will be taken during the implementation process with regards to WUE until approval is received from the Provost.* 

#### 13. Math Intensity:

- a. List the highest math course required on the major map. (This will not appear on Degree Search.) MAT 142
- b. What is the math intensity as indicated by the highest math required on the major map? Math intensity categorization can be found here: https://catalog.asu.edu/mathintensity General

#### 14. CIP codes

Identify CIP codes that should be displayed on Degree Search. CIP codes can be found at: http://www.onetonline.org/crosswalk/CIP/.

54.0104	History of Science and Technology
54.0101	History, General
	specific career codes (SOC/ONET codes) to be omitted from the CIP codes selected above? uit 25-10312.00 Engineering Teachers, Postsecondary from CIP code 14.0501 Bioengineering and Biomedical ing.")



15. Area(s)			
		om the	list below that applies to this program.
=	Architecture & Construction		Health & Wellness
	Arts	$\boxtimes$	Humanities
	Business		Interdisciplinary Studies
	Communications & Media		Law, Justice & Public Service
	<b>Computing &amp; Mathematics</b>		STEM
	<b>Education &amp; Teaching</b>		Science
	Engineering & Technology		Social and Behavioral Sciences
	Entrepreneurship		Sustainability
	Exploratory		
B. Sel	ect one (1) secondary area of interest	from t	he list below that applies to this program.
	<b>Architecture &amp; Construction</b>		Health & Wellness
	Arts		Humanities
	Business		Interdisciplinary Studies
	Communications & Media		Law, Justice & Public Service
	Computing & Mathematics	$\boxtimes$	STEM
	<b>Education &amp; Teaching</b>		Science
	<b>Engineering &amp; Technology</b>		Social and Behavioral Sciences
	Entrepreneurship		Sustainability
	Exploratory		•
	The following fields are to	be co	mpleted by the Office of the University Provost.
CIP	Code:		
Plan	Code:		



## 2016 - 2017 Major Map

## History of Science, Ideas, and Innovation, (Proposed)

CZPFDMP

Term 5

61 - 75 Credit Hours Necessary course signified by

Term 1	0 - 13 Credit Hours Critical course signified by •	Hours	Minimum Grade	Notes		
ENG 105:	or ENG 102: First-Year Composition OR : Advanced First-Year Composition OR or ENG 108: First-Year Composition	3	С	An SAT, ACT, Accuplacer, IELTS or TOEFL score		
ASU 101-	-CLS: The ASU Experience	1		determines placement		
Humanitie	es, Arts and Design (HU)	3		into first-year composition courses		
Mathema	tics (MA)	3		<ul> <li>ASU Mathematics         Placement Test score     </li> </ul>		
Social-Be	ehavioral Sciences (SB)	3		determines placement in mathematics course		
	Term hours subt	otal: 13		<ul> <li>ASU 101 or college- specific equivalent First-Year Seminar required of all freshman students</li> </ul>		
Term 2	14 - 28 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes		
HST 280:	History of Science, Ideas and Innovation	3	С	Students must select		
ENG 105:	or ENG 102: First-Year Composition OR : Advanced First-Year Composition OR or ENG 108: First-Year Composition	3	С	Related Area course all from ONE subject/prefix indicat		
Cultural D	Diversity in the U.S. (C)	3		at bottom of the major map.		
Social-Be	havioral Sciences (SB)	3				
Related A	Area Course	3	С			
Complete	ENG 101 OR ENG 105 OR ENG 107 course(s).					
	Term hours subt	otal: 15				
Term 3	29 - 44 Credit Hours Critical course signified by	Hours	Minimum Grade	Notes		
			С			
History of	Science, Ideas and Innovation Elective	3				
	Science, Ideas and Innovation Elective vareness (G)	3				
Global Av	<u>`</u>					
Global Av	vareness (G)	3				
Global Av Humanitie Literacy a	vareness (G) es, Arts and Design (HU)	3				
Global Aw Humanitie Literacy a Natural S	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L)	3 3 3				
Global Aw Humanitie Literacy a Natural S	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ)	3 3 3 4				
Global Aw Humanitie Literacy a Natural S	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ) Mathematics (MA) requirement.	3 3 3 4 otal: 16	Minimum Grade	Notes		
Global Av Humanitie Literacy a Natural S Complete	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ) Mathematics (MA) requirement.  Term hours subt	3 3 3 4 otal: 16				
Global Av Humanitie Literacy a Natural S Complete  Term 4 Related A	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ) Mathematics (MA) requirement.  Term hours subte	3 3 3 4 4 otal: 16 Hours	Grade	Students must select Related Area courses		
Global Av Humanitie Literacy a Natural S Complete  Term 4 Related A Computer	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ) e Mathematics (MA) requirement.  Term hours subte 45 - 60 Credit Hours Critical course signified by	3 3 3 4 4 otal: 16 Hours 3	Grade	Students must select Related Area courses all from ONE subject/prefix indicate		
Global Av Humanitie Literacy a Natural S Complete  Term 4 Related A Computer Historical Natural S	vareness (G) es, Arts and Design (HU) and Critical Inquiry (L) cience - Quantitative (SQ) Mathematics (MA) requirement.  Term hours subte 45 - 60 Credit Hours Critical course signified by Area Course t/Statistics/Quantitative Applications (CS)	3 3 3 4 otal: 16 Hours 3 3	Grade	Students must select Related Area courses		

1 of 3 7/13/2016 3:45 PM

Minimum

Grade

Notes

Hours

☆ HST 495: Methods of Historical Inquiry (L)	3	С
Complete 3 courses: Upper Division History of Science, Ideas and Innovation Elective	9	С
Related Area Course	3	С
Term hours subtotal:	15	

- Students must choose elective credits from the list provided at the bottom of the major map.
- Students must select Related Area courses all from ONE subject/prefix indicated at bottom of the major map.

Term 6 76 - 90 Credit Hours Necessary course signified by	Hours	Minimum Grade	Notes
Complete 3 courses: Upper Division History of Science, Ideas and Innovation Elective	9	С	
Complete 2 courses: Elective	6		
Term hours subtotal:	15		
Term 7 91 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
Complete 3 courses: Upper Division History of Science, Ideas and Innovation Elective	9	С	
Complete 2 courses: Elective	6		

Term 8 y 🚖	106 - 120 Credit Hours Necessary course signified	Hours	Minimum Grade	Notes
	e 4 courses: vision History of Science, Ideas and Innovation Elective	12	С	
	vision Humanities, Arts and Design (HU) OR vision Social-Behavioral Sciences (SB)	3		
	Term hours subtotal:	15		

Related Area Courses (9 credits from History of Science, Ideas and ONE subject below) Innovation Electives **ABS** Elective HST 294: Special Topics **PHY** Elective HST 301: Global History of Health (SB & G & H) **POS** Elective HST 308: History and Philosophy of **SOC** Elective Sustainability HST 309: Exploration and Empire ((L or HU) & H) HST 312: History of Women in Science and Medicine (HU or SB) HST 318: History of Engineering ((L or SB) & G) HST 319: History of Aviation HST 345: Environmental History (L) HST 380: Studies in the History of Science HST 381: Studies in the History of Ideas HST 382: Studies in the History of Innovation and Technology HST 385: History of Chinese Medicine (HU & H & G) HST 394: Special Topics

Hide Course List(s)/Track Group(s)

2 of 3 7/13/2016 3:45 PM

HST 482: Writing and the History of Science, Ideas and Technology

HST 484: Internship

HST 494: Special Topics

Total Hours: 120

Upper Division Hours: 45 minimum Major GPA: 2.00 minimum Cumulative GPA: 2.00 minimum Total hrs at ASU: 30 minimum Hrs Resident Credit for Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

#### **General University Requirements Legend**

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science Quantitative (SQ)
- Natural Science General (SG)

## General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2016 - 2017 academic year.

3 of 3 7/13/2016 3:45 PM Impact statements for: BA and Minor, History of Science, Ideas and Innovation

CLS Curriculum committee approved the BA, and Minor Proposal in the History of Science, Ideas and Innovation on May 18, 2016.

From: David Guston

**Sent:** Monday, June 20, 2016 3:06 AM **To:** Duane Roen < <u>Duane.Roen@asu.edu</u>>

**Subject:** Re: Major and Minor in History of Science, Ideas and Innovation

Duane

The School for the Future of Innovation in Society welcomes this proposal and looks forward to opportunities to collaborate with the faculty delivering this curriculum and create synergies between our programs and these new ones.

Please keep me posted on its development, and let me know if there is anything I can assist with.

Best

Dave

\_\_\_\_\_

From: Ann McKenna

**Sent:** Monday, June 13, 2016 5:32 PM **To:** Duane Roen < Duane.Roen@asu.edu>

Subject: Re: BA and Minor Proposal: History of Science, Ideas, and Innovation

Hi Duane,

Yes we also support the minor.

Ann

From: Ann McKenna

**Sent:** Thursday, February 18, 2016 8:09 AM **To:** Duane Roen < Duane.Roen@asu.edu>

Subject: Re: BA and Minor Proposal: History of Science, Ideas, and Innovation

Hi Duane,

The Polytechnic School supports the new BA in the History of Science, Ideas, and Innovation that the College of Letters and Sciences plans to offer at the Polytechnic campus.

Best,

Ann

----Original Message----

From: George Justice [mailto:George.Justice@asu.edu]

Sent: Thursday, March 17, 2016 2:48 PM To: Duane Roen <Duane.Roen@asu.edu>

Subject: Re: BA and Minor Proposal: History of Science, Ideas, and Innovation

Dear Duane,

Given that you have told us these will not be iCourses, we support the courses as well as the proposed major and minor.

Best, George

From: Todd Sandrin

Sent: Monday, May 02, 2016 4:32 PM

To: Duane Roen

Subject: RE: Proposal for HST Concentration in Politics, War, and Diplomacy

No problem, Duane.

I append below an email exchange that includes statements from Dean Tromp and the Director of our School of Humanities, Arts & Cultural Studies (Louis Mendoza) indicating that New College foresees no negative impacts of the HST concentration CLS proposes.

Don't hesitate to let me know if I can help further.

Best regards,

Todd

\_\_\_\_\_

\_

## Todd R. Sandrin, Ph.D.

Professor - School of Mathematical and Natural Sciences

Associate Dean - New College | Director - NCUIRE

**New College** | Arizona State University

(602) 543-6934 | Todd.Sandrin@asu.edu | Lab - http://sandrin-lab.asu.edu

**\_From:** Marlene Tromp

**Sent:** Thursday, February 18, 2016 5:30 PM **To:** Duane Roen < <u>Duane.Roen@asu.edu</u>> **Cc:** Todd Sandrin < <u>Todd.Sandrin@asu.edu</u>>

Subject: FW: BA and Minor Proposal: History of Science, Ideas, and Innovation

Dear Duane,

Please see below. I support this degree as well.

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

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

From: Louis Mendoza < Louis.G.Mendoza@asu.edu >

**Date:** Thursday, February 18, 2016 at 4:25 PM **To:** Marlene Tromp < marlene.tromp@asu.edu>

Subject: Re: BA and Minor Proposal: History of Science, Ideas, and Innovation

We have reviewed the attached proposal for a BA in the history of Science, Ideas, and Innovation and the proposed new courses and we see no areas of negative impact on our program. We support the establishment of this BA and the new courses.

Louis

Dr. Louis Mendoza, Director

School of Humanities, Arts, and Cultural Studies

New College of Interdisciplinary Arts and Sciences

4701 W. Thunderbird Rd., FAB N201

Glendale, AZ 85306-4908

P.O. Box 37100, MC 2151, Phoenix AZ 85069-7100

Arizona State University

Office: 602-543-6242

### https://newcollege.asu.edu/humanities-arts-cultural-studies-degree-programs

From: Duane Roen < <u>Duane.Roen@asu.edu</u>>

Date: Monday, February 15, 2016 at 8:10 PM

To: Marlene Tromp <marlene.tromp@asu.edu>, Todd Sandrin <Todd.Sandrin@asu.edu>

**Subject:** BA and Minor Proposal: History of Science, Ideas, and Innovation

Marlene and Todd,

I'm writing to you to request impact statements for a proposed major, minor, and five courses.

Attached is a proposal for a new BA in the History of Science, Ideas, and Innovation that the College of Letters and Sciences plans to offer at the Polytechnic campus.

I've also attached the proposal for an accompanying minor.

There are also five proposals for new courses attached, all necessary for the new degree:

HST 280 History of Science, Ideas, and Innovation

HST 380 Studies in History and Science: Scientific Controversies

HST 381 Studies in the History of Ideas

HST 382 Studies in the History of Innovation and Technology

HST 482Writing and the History of Science, Ideas, and Technology

If you are willing to support the major, minor, and the five new courses, please indicate so in a brief reply to this message.

Thank you for considering this request.

Best,

Duane

Duane Roen

Vice Provost, Polytechnic campus

Dean, College of Letters and Sciences

Dean, University College

Arizona State University

480-727-6513

duane.roen@asu.edu