### GENERAL STUDIES COURSE PROPOSAL COVER FORM

**Course Information:**
Copy and paste current course information from Class Search/Course Catalog.

<table>
<thead>
<tr>
<th>College/School</th>
<th>College of Integrative Sciences and Arts</th>
<th>Department/School</th>
<th>Leadership and Interdisciplinary Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix: IDS</td>
<td>Number: 140</td>
<td>Title: The Nature of Knowledge</td>
<td>Units: 3</td>
</tr>
</tbody>
</table>

**Course description:** This course will introduce students to the structure and divisions of knowledge systems in the university setting. After surveying the different types of disciplines, students will learn processes for using knowledge and insights from different sources in an integrative manner.

<table>
<thead>
<tr>
<th>Is this a cross-listed course?</th>
<th>No</th>
<th>If yes, please identify course(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this a shared course?</td>
<td>No</td>
<td>If so, list all academic units offering this course:</td>
</tr>
</tbody>
</table>

*Note:* For courses that are crosslisted and/or shared, a letter of support from the chair/director of each department that offers the course is required for each designation requested. By submitting this letter of support, the chair/director agrees to ensure that all faculty teaching the course are aware of the General Studies designation(s) and will teach the course in a manner that meets the criteria for each approved designation.

<table>
<thead>
<tr>
<th>Is this a permanent-numbered course with topics?</th>
<th>No</th>
</tr>
</thead>
</table>

*Note:* A separate proposal is required for each designation.

**Requested designation:** Humanities, Arts and Design–HU

**Mandatory Review:** Yes

**Eligibility:** Permanent numbered courses must have completed the university’s review and approval process. For the rules governing approval of omnibus courses, contact Phyllis.Lucie@asu.edu.

**Submission deadlines dates are as follow:**
For Fall 2019 Effective Date: October 5, 2018
For Spring 2020 Effective Date: March 8, 2019

**Area(s) proposed course will serve:**
A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

**Checklists for general studies designations:**
Complete and attach the appropriate checklist
- Literacy and Critical Inquiry core courses (L)
- Mathematics core courses (MA)
- Computer/statistics/quantitative applications core courses (CS)
- Humanities, Arts and Design core courses (HU)
- Social-Behavioral Sciences core courses (SB)
- Natural Sciences core courses (SQ/SG)
- Cultural Diversity in the United States courses (C)
- Global Awareness courses (G)
- Historical Awareness courses (H)

**A complete proposal should include:**
- Signed course proposal cover form
- Criteria checklist for General Studies designation being requested
- Course catalog description
- Sample syllabus for the course
- Copy of table of contents from the textbook and list of required readings/books

It is respectfully requested that proposals are submitted electronically with all files compiled into one PDF.

**Contact information:**
Name: Amanda Hess | E-mail: andihess@asu.edu | Phone: 480-727-3265

**Department Chair/Director approval:** (Required)
Chair/Director name (Typed):  
Date:  
Chair/Director (Signature):  

Rev. 7/2018
Arizona State University Criteria Checklist for

HUMANITIES, ARTS AND DESIGN [HU]

Rationale and Objectives

The humanities disciplines are concerned with questions of human existence and meaning, the nature of thinking and knowing, with moral and aesthetic experience. The humanities develop values of all kinds by making the human mind more supple, critical, and expansive. They are concerned with the study of the textual and artistic traditions of diverse cultures, including traditions in literature, philosophy, religion, ethics, history, and aesthetics. In sum, these disciplines explore the range of human thought and its application to the past and present human environment. They deepen awareness of the diversity of the human heritage and its traditions and histories and they may also promote the application of this knowledge to contemporary societies.

The study of the arts and design, like the humanities, deepens the student’s awareness of the diversity of human societies and cultures. The arts have as their primary purpose the creation and study of objects, installations, performances and other means of expressing or conveying aesthetic concepts and ideas. Design study concerns itself with material objects, images and spaces, their historical development, and their significance in society and culture. Disciplines in the arts and design employ modes of thought and communication that are often nonverbal, which means that courses in these areas tend to focus on objects, images, and structures and/or on the practical techniques and historical development of artistic and design traditions. The past and present accomplishments of artists and designers help form the student’s ability to perceive aesthetic qualities of art work and design.

The Humanities, Arts and Design are an important part of the General Studies Program, for they provide an opportunity for students to study intellectual and imaginative traditions and to observe and/or learn the production of art work and design. The knowledge acquired in courses fulfilling the Humanities, Arts and Design requirement may encourage students to investigate their own personal philosophies or beliefs and to understand better their own social experience. In sum, the Humanities, Arts and Design core area enables students to broaden and deepen their consideration of the variety of human experience.

Revised April 2014
Proposer: Please complete the following section and attach appropriate documentation.

**ASU - [HU] CRITERIA**

HUMANITIES, ARTS AND DESIGN [HU] courses must meet either 1, 2 or 3 and at least one of the criteria under 4 in such a way as to make the satisfaction of these criteria A CENTRAL AND SUBSTANTIAL PORTION of the course content.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>☒</td>
<td>☐</td>
<td>1. Emphasizes the study of values; the development of philosophies, religions, ethics or belief systems; and/or aesthetic experience. Syllabus</td>
</tr>
<tr>
<td>☐</td>
<td>☒</td>
<td>2. Concerns the interpretation, analysis, or creation of written, aural, or visual texts; and/or the historical development of textual traditions. Syllabus</td>
</tr>
<tr>
<td>☐</td>
<td>☒</td>
<td>3. Concerns the interpretation, analysis, or engagement with aesthetic practices; and/or the historical development of artistic or design traditions.</td>
</tr>
<tr>
<td>☒</td>
<td>☐</td>
<td>4. In addition, to qualify for the Humanities, Arts and Design designation a course must meet one or more of the following requirements: Syllabus</td>
</tr>
<tr>
<td>☐</td>
<td>☒</td>
<td>a. Concerns the development of human thought, with emphasis on the analysis of philosophical and/or religious systems of thought. Syllabus</td>
</tr>
<tr>
<td>☐</td>
<td>☒</td>
<td>b. Concerns aesthetic systems and values, especially in literature, arts, and design.</td>
</tr>
<tr>
<td>☐</td>
<td>☒</td>
<td>c. Emphasizes aesthetic experience and creative process in literature, arts, and design.</td>
</tr>
<tr>
<td>☒</td>
<td>☐</td>
<td>d. Concerns the analysis of literature and the development of literary traditions. Syllabus</td>
</tr>
</tbody>
</table>

THE FOLLOWING TYPES OF COURSES ARE EXCLUDED FROM THE [HU] DESIGNATION EVEN THOUGH THEY MIGHT GIVE SOME CONSIDERATION TO THE HUMANITIES, ARTS AND DESIGN:

- Courses devoted primarily to developing skill in the use of a language.
- Courses devoted primarily to the acquisition of quantitative or experimental methods.
- Courses devoted primarily to teaching skills.
Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

<table>
<thead>
<tr>
<th>Criteria (from checksheet)</th>
<th>How course meets spirit (contextualize specific examples in next column)</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This course emphasizes the study of values and the development of philosophies of science. The course examines the variety of epistemologies of disciplines and disciplinary categories.</td>
<td>Each topic on the syllabus includes the study of the philosophy of that way of knowing, including epistemologies that drive the foundational concepts and theories in different disciplines and disciplinary categories. The course description on the syllabus includes this as a key component throughout the course.</td>
</tr>
<tr>
<td>2</td>
<td>This course will examine the way that science and knowledge have been made, shared, and used, including the textual traditions of science writing.</td>
<td>Homework assignments in particular focus on asking the students to examine how knowledge has been made, shared, and used.</td>
</tr>
<tr>
<td>4a</td>
<td>This course primarily concerns the development of human thought. It specifically examines the historical development of philosophical thought: how and why we think we know things.</td>
<td>See the course description and the weekly topics. The course includes a study of philosophy as an example discipline, but it also includes a study of the philosophical traditions of all disciplines covered.</td>
</tr>
<tr>
<td>4d</td>
<td>This course will examine the way that science and knowledge have been made, shared, and used, including the literary traditions of science and knowledge sharing.</td>
<td>See the course description, homework assignments, and the weekly topics. The course includes a study of literature as an example discipline, as well as a textual analysis exercise, but it also includes a study of the literary traditions of knowledge creation and science more generally.</td>
</tr>
</tbody>
</table>
IDS 140: The Nature of Knowledge

Tempe campus | Day TBD | Time TBD | Building, room TBD

Instructor information

Name: Amanda Hess
Office Location: USE 233
Office Hours: My office hours will be from 2-4pm on Thursdays. You can also make an appointment by contacting me via email.
Email: andihess@asu.edu
Phone Number: 480-226-4364
College Contact: CISA@asu.edu

This course is offered by the College of Integrative Sciences and Arts. For more information about the college, visit our website: cisa.asu.edu. If you have questions or concerns about this course please speak with your instructor. If your instructor is unable to address your concerns, please send your inquiry to cisa@asu.edu.

Course information

Course Format
This course will include in person meetings as well as online content and assignments. You can log into your course via MyASU or https://my.asu.edu.

Catalog Description
This course will introduce students to the structure and divisions of knowledge systems in the university setting. After surveying the different types of disciplines, students will learn processes for using knowledge and insights from different sources in an integrative manner.

Course Description
In this course, we will examine three major categories of knowledge (natural sciences, social sciences, and humanities), studying some of the basic assumptions and theoretical foundations that researchers use to create specific types of knowledge about different areas of inquiry. For each category, we will use a few disciplinary examples to explore how different disciplines ask questions and find answers, and how this came to be. We will also take a look at some of the methods researchers typically use in different disciplines. After surveying the different types of disciplines, students will learn processes for using knowledge and insights from different sources in an integrative manner.

Student Learning Outcomes
Through weekly readings, written assignments and the final project, students will be able to:
- Describe how and why the western knowledge system is divided (social sciences, natural sciences, humanities)
- Compare epistemologies of disciplinary knowledge systems
- Compare a variety of methods of inquiry from the social sciences, natural sciences, and humanities
- Describe how knowledge gets socially created and used
- Describe different cross-disciplinary communication techniques
- Identify processes for utilizing knowledge in an integrative manner
- Explain the need for cross-functional communication and interdisciplinary teams on STEM research groups
Required Course Texts/Readings/Materials
Selections from:

6. Other readings as assigned (located in Blackboard)

Assignments, Exams and Grading

Assignments and Exams

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points (each)</th>
<th>Points (total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocab exercises (5)</td>
<td>30</td>
<td>150</td>
</tr>
<tr>
<td>Homework (10)</td>
<td>25</td>
<td>250</td>
</tr>
<tr>
<td>Unit quizzes (3)</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Final Exam</td>
<td>100</td>
<td>200</td>
</tr>
<tr>
<td>Attendance (15 weeks)</td>
<td>10</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1000</td>
</tr>
</tbody>
</table>

Grade Scale

Grades will be determined by the percentage you accumulate:

A  90-100      Excellent
B  80-89.9    Good
C  70-79.9    Average
D  60-69.9    Passing
E  <60       Failure
XE Failure due to Academic Dishonesty

For your own protection, you should keep a copy of everything you hand in, and you should keep your graded assignments at least until grades are finalized at the end of the semester, and in the event you wish to contest any grades.

Grade Appeals

Students must first speak with the instructor of the class to discuss any disputed grades. If, after review, a resolution is not achieved students may proceed with the appeal process. Student grade appeals must be processed in the regular semester immediately following the issuance of the grade in dispute (by commencement for fall or spring), regardless whether the student is enrolled at the university. Complete details are available in the ASU Grade Appeals policy.
## Course Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit 1: Ways of Knowing</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1 | Introduction to the course  
How do we know things? | Vocab 1: Knowledge  
**Homework:** What is knowing? |
| 2 | Categorizing Knowledge | **Homework:** What is a discipline?  
**Unit quiz** |
| **Unit 2: The Natural Sciences** | | |
| 3 | What is Science?  
The scientific method  
Focus on: Math and Logic | Vocab 2: Natural Sciences |
| 4 | Focus on: Physics  
Focus on: Chemistry | **Homework:**  
Making Knowledge: What is a theory? |
| 5 | Focus on: Biology  
Methods spotlight: Laboratory Research | **Homework:**  
Methods Journal: Lab Report exercise  
**Unit quiz** |
| **Unit 3: The Social Sciences** | | |
| 6 | What is Social Science?  
Focus on: Sociology  
Focus on: Political Science | Vocab 3: Social Sciences |
| 7 | Focus on: Anthropology  
Methods spotlight: Ethnographic Research | **Homework:**  
Sharing Knowledge: What is a journal? |
| 8 | Focus on: Psychology  
Methods spotlight: Survey Research | **Homework:**  
Methods Journal: Survey Design exercise |
| 9 | **Review and Midterm** | **Midterm exam** |
| **Unit 4: The Humanities** | | |
| 10 | What are the Humanities?  
Focus on: Philosophy | Vocab 4: Humanities |
| 11 | Focus on: Religious Studies  
Focus on: History | **Homework:**  
Sharing Knowledge: What is an academic association? |
| 12 | Focus on: Literature  
Methods spotlight: Content Analysis | **Homework:**  
Methods Journal: Content Analysis exercise  
**Unit quiz** |
| **Unit 5: Interdisciplinarity** | | |
| 13 | What is interdisciplinarity?  
History of IDS | Vocab 5: Interdisciplinarity |
| 14 | “Interdisciplines” in the academy | **Homework:**  
Using Knowledge: Integrating Perspectives |
| 15 | Using multiple perspectives in your work  
Methods spotlight: Conducting interdisciplinary literature reviews | **Homework:**  
Methods Journal: Literature Review exercise |
| 16 | **Course Wrap Up & Final Exam** | **Final Exam** |
Assignment Descriptions

Attendance

Good attendance is essential for learning the material, and attendance is required for this course. Attendance each week is worth 10 points towards your final grade.

Vocabulary Exercises

Each unit we will begin with an exercise reviewing key vocabulary. Words mean very specific things in each discipline, and it’s important to understand how we use these words to create and use knowledge.

Homework Exercises

Each unit will have two (2) homework exercises. The first kind of homework exercise will ask you to examine some of the ways we make, share, and use knowledge in the academic knowledge system. Examining how knowledge is organized will help you know how to use it as you move through the rest of your ASU career.

The second kind of homework assignment will be your Methods Journal. In class, you will be learning about a variety of research methods and how they are used in different disciplines. These homework exercises will be activities that help you explore the purpose and features of these methods.

Unit Quizzes

For Units 1, 2 and 4, you will have a unit quiz at the end. Quizzes will include multiple choice and short essay questions covering material from the vocabulary assignments, in-class lectures, and assigned readings. Unit quizzes will be done on Blackboard.

Midterm Exam

At the end of Unit 3, you will have an in-class midterm exam. The midterm exam will be cumulative and cover units 1-3. It will include multiple choice and short essay questions covering material from the vocabulary assignments, in-class lectures, and assigned readings.

Final Exam

At the end of Unit 5, you will have an in-class midterm exam. The midterm exam will be cumulative and cover units 1-5. It will include multiple choice and short essay questions covering material from the vocabulary assignments, in-class lectures, and assigned readings.

Course Policies

Attendance

Attendance is required in this course and is a part of your grade. Excused absences related to religious observances/practices that are in accord with ACD 304–04, “Accommodation for Religious Practices” OR related to university sanctioned events/activities that are in accord with ACD 304–02, “Missed Classes Due to University-Sanctioned Activities” should be arranged with the instructor in advance.

Late or Missed Assignments

No assignments will be accepted late in this course. Notify the instructor BEFORE an assignment is due if an urgent situation arises and the assignment will not be submitted on time. Published assignment due dates (Arizona Mountain Standard time) are firm. Please follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities.
Extra Credit
There is no extra credit available in this course.

Trigger Warning
Please note that some course content may be deemed offensive by some students, although it is not my intention to offend anyone. In addition, some materials that we link with online might also be considered offensive, troubling, or difficult to review in terms of language or graphics. I attempt to provide warnings when introducing this kind of material; yet if I forget to do so, or if something else (in my materials or posts from fellow students) seems offensive, please contact me at andihess@asu.edu or the faculty head, Kevin Ellsworth.

Classroom Behavior
We want to build a classroom climate that is comfortable for all. It is important that we (1) display respect for all members of the classroom – including the instructor and students; (2) pay attention to and participate in all class sessions and activities; (3) avoid unnecessary disruption during class time (e.g. having private conversations, reading the newspaper, surfing the Internet, doing work for other classes, making/receiving phone calls, text messaging, etc.); (4) observe the rules of appropriate online behavior (also known as netiquette); and (4) avoid racist, sexist, homophobic, or other negative language that may unnecessarily exclude members of our campus and classroom. This is not an exhaustive list of behaviors; rather, it represents examples of the types of things that can have a dramatic impact on the class environment. Your final grade may be reduced by 5% each time you engage in these sorts of behaviors.

Establishing a Safe Environment
Learning takes place best when a safe environment is established in the classroom. In accordance with SSM 104-02 of the Student Services Manual, students enrolled in this course have a responsibility to support an environment that nurtures individual and group differences and encourages engaged, honest discussions. The success of the course rests on your ability to create a safe environment where everyone feels comfortable to share and explore ideas. We must also be willing to take risks and ask critical questions. Doing so will effectively contribute to our own and others intellectual and personal growth and development. We welcome disagreements in the spirit of critical academic exchange, but please remember to be respectful of others’ viewpoints, whether you agree with them or not.

All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

Email Communication
ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly. All instructor correspondence will be sent to your ASU email account. For help with your email go to: MyASU > Service > Live Chat OR New Ticket.

Prohibition of Commercial Notetaking Services
In accordance with ACD 304-06 Commercial Note Taking Services, written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the note taker’s name as well as the instructor's name, the course number, and the date.
University Policies

Academic Integrity
Arizona State University and the College of Integrative Sciences and Arts strongly believe in academic integrity; thus cheating and plagiarism is not tolerated. Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement. If a student is charged with academic dishonesty and found to be in violation, disciplinary action will be taken and a student's name will be kept on file. Academic dishonesty includes borrowing ideas without proper citation, copying others’ work (including information posted on the internet), failing to turn in your own work for group projects, as well as providing materials of any type to a homework help site or a study resource site. Disciplinary action may result in a reduced grade for the assignment or class, suspension or expulsion from the university, and/or an XE on his or her transcript. For further information, please read the Student Academic Integrity policy at provost.asu.edu/academic-integrity.

Students with Disabilities
If you need academic accommodations or special consideration of any kind to get the most out of this class, please let me know at the beginning of the course. If you have a disability and need a reasonable accommodation for equal access to education at ASU, please call Disability Resources for Students (DRC). The site can be found at eoss.asu.edu/drc. Instructors cannot provide accommodations without authorization from the DRC.

Downtown Phoenix Campus
Post Office building, Suite 201
Phone: 602.496.4321
E-mail: DRCDowntown@asu.edu

Polytechnic Campus
Sutton Hall - Suite 240
Phone: 480.727.1039
E-mail: DRCPoly@asu.edu

Tempe Campus
Matthews Center building, 1st floor
Phone: 480.965.1234
E-mail: DRCTempe@asu.edu

West Campus
University Center Building, Room 130
Phone: 602.543.8145
E-mail: DRCWest@asu.edu

Mental Health
As a student, like anyone else, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These emotional health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. ASU Counseling Services provides counseling and crisis services for students who are experiencing a mental health concern. Any student may call or walk-in to any ASU counseling center for a same day or future appointment to discuss any personal concern. Here is the Web site:
eoss.asu.edu/counseling. After office hours and 24/7 ASU’s dedicated crisis line is available for crisis consultation by calling 480-921-1006.

Student Code of Conduct
Students are required to adhere to the behavior standards listed in the Arizona Board of Regents Policy Manual Chapter V – Campus and Student Affairs: Code of Conduct located online at students.asu.edu/srr/code and the ACD 125: Computer, Internet, and Electronic Communications available at asu.edu/aad/manuals/acd/acd125.html.

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from a course when the student’s behavior disrupts the educational process under USI 201-10 asu.edu/aad/manuals/ssm/ssm201-10.html. An instructor may withdraw a student from a course with a mark of “W” or “E” when the student’s behavior disrupts the educational process. Disruptive classroom behavior for this purpose is defined by the instructor.

Harassment Prohibited
ASU policy prohibits harassment on the basis of race, sex, gender identity, age, religion, national origin, disability, sexual orientation, Vietnam era veteran status, and other protected veteran status. Violations of this policy may result in disciplinary action, including termination of employees or expulsion of students. Contact the professor if you are concerned about online harassment of any kind, and he/she will put you in contact with the Dean of Students office.

Title IX
Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at sexualviolenceprevention.asu.edu/faqs.

“As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, eoss.asu.edu/counseling, is available if you to wish discuss any concerns confidentially and privately.”

Statement on Inclusion
Arizona State University is deeply committed to positioning itself as one of the great new universities by seeking to build excellence, enhance access and have an impact on our community, state, nation and the world. To do that requires our faculty and staff to reflect the intellectual, ethnic and cultural diversity of our nation and world so that our students learn from the broadest perspectives, and we engage in the advancement of knowledge with the most inclusive understanding possible of the issues we are addressing through our scholarly activities. We recognize that race and gender historically have been markers of diversity in institutions of higher education. However, at ASU, we believe that diversity includes additional categories such as socioeconomic background, religion, sexual orientation, gender identity, age, disability, veteran status, nationality and intellectual perspective.

Syllabus Disclaimer
The course syllabus is an educational contract between the instructor and students. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes via email, or in the Announcements section on Blackboard.
Campus Resources
There is clear evidence that students who take advantage of academic support services perform better academically. As an ASU student you have access to many resources on campus. This includes tutoring, academic success coaching, counseling services, financial aid, disability resources, career and internship help and many opportunities to get involved in student clubs and organizations.

- Tutoring: students.asu.edu/academic-success
- Counseling Services: students.asu.edu/counseling
- Financial Aid: students.asu.edu/financialaid
- Disability Resource Center: asu.edu/studentaffairs/ed/drc/
- Major/Career Exploration: uc.asu.edu/majorexploration/assessment
- Career Services: students.asu.edu/career
- Student Organizations: asu.edu/studentaffairs/mu/clubs/
- ASU Writing Centers: tutoring.asu.edu/writing-centers
- ASU Police Department: cfo.asu.edu/police
- International Student Resources: students.asu.edu/international/support/academic
An Introduction to Interdisciplinary Research

Contents

Acknowledgements 8

Preface 10
  Chapter guides 11

Part 1  The Handbook - 'The What'
  1 Introduction 12
  2 What is science? A brief philosophy of science 17
    2.1 What is science? 17
    2.2 Moving through the Science Cycle 18
  3 The disciplines 25
    3.1 Academic disciplines: A brief history 25
    3.2 Our definition of a discipline 27
    3.3 Classification of academic disciplines 29
  4 Interdisciplinarity 31
  5 Complexity: the main driving force behind interdisciplinarity 34
    5.1 Complex (adaptive) systems 35
    5.2 Complexity broken down into drivers of interdisciplinarity 38
  6 Interdisciplinary integration 41
    6.1 Communication as a first step to integration 43
    6.2 Integration techniques 44
Part 2 The Manual - 'The How'
7 The interdisciplinary research process
   7.1 The IIS model of interdisciplinary research
   7.2 Planning your research project
8 The problem
   Step 1 Identify problem or topic
   Step 2 Formulate preliminary research question
9 Theoretical framework and research question
   Step 3 Develop theoretical framework
   Step 4 Finalize research question
   Step 5 Formulate sub-questions
10 How to collect and analyze your data
   Step 6 Develop research methods and design
   Step 7 Data collection and analysis
11 Discussion and conclusion(s)
   Step 8 Interpret results, discuss research & draw conclusion(s)

Part 3 Interdisciplinary research in practice
12 Interdisciplinary research example: fogponics
   Step 1 Identify problem or topic
   Step 2 Formulate preliminary research question
   Step 3 Develop theoretical framework
   Step 4 Finalize research question
   Step 5 Formulate sub-questions
   Step 6 Develop research methods and design
   Step 7 Data collection and analysis
   Step 8 Interpret results, discuss research & draw conclusion(s)
13 Interdisciplinary careers

Further reading

References
   References Research projects undertaken by IIS students
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>vii</td>
</tr>
<tr>
<td>1. Characterizing the Three Cultures</td>
<td>1</td>
</tr>
<tr>
<td>2. The Natural Sciences</td>
<td>51</td>
</tr>
<tr>
<td>3. Social Sciences 1</td>
<td>104</td>
</tr>
<tr>
<td>4. Social Sciences 2</td>
<td>168</td>
</tr>
<tr>
<td>5. The Humanities</td>
<td>222</td>
</tr>
<tr>
<td>6. Current Tensions</td>
<td>245</td>
</tr>
<tr>
<td>Notes</td>
<td>277</td>
</tr>
<tr>
<td>Index</td>
<td>301</td>
</tr>
</tbody>
</table>