

#### GENERAL STUDIES COURSE PROPOSAL COVER FORM

**Course information:** Copy and paste <u>current</u> course information from <u>Class Search/Course Catalog</u>. College/School School of Sustainability Department/School Prefix: Title: Units: SOS Number: 330 Sustaining the Commons 3 Course description: Equips students with tools to analyze the conditions in which communities can be successful in managing their common resources such as forest, water and clean air. Students will learn the institutional analysis and development framework to evaluate such collective action problems. This approach of analysis will be applied to various sustainability topics from irrigation systems and fisheries to climate change and energy systems in urban environments. Is this a cross-listed course? No If yes, please identify course(s): Is this a shared course? If so, list all academic units offering this course: No 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. Is this a permanent-numbered course with topics? If yes, all topics under this permanent-numbered course must be taught in a manner that meets the criteria Chair/Director Initials for the approved designation(s). It is the responsibility of the chair/director to ensure that all faculty teaching the course are aware of the General Studies designation(s) and adhere to the above guidelines. (Required) **Requested designation:** Literacy and Critical Inquiry–L Mandatory Review: (Choose one) Note- a separate proposal is required for each designation. 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 2018 Effective Date: October 1, 2017 For Spring 2019 Effective Date: March 10, 2018 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 Caroline J Harrison E-mail caroline.harrison@asu.edu 480-965-8645 Phone Department Chair/Director approval: (Required) April 6, 2018 Chair/Director name (Typed): Date: Christopher Boone

Rev. 3/2017

Chair/Director (Signature):

1B3950F266FF4F9

#### Arizona State University Criteria Checklist for

#### LITERACY AND CRITICAL INQUIRY - [L]

#### **Rationale and Objectives**

Literacy is here defined broadly as communicative competence—that is, competence in written and oral discourse. **Critical inquiry** involves the gathering, interpretation, and evaluation of evidence. Any field of university study may require unique critical skills that have little to do with language in the usual sense (words), but the analysis of written and spoken evidence pervades university study and everyday life. Thus, the General Studies requirements assume that all undergraduates should develop the ability to reason critically and communicate using the medium of language.

The requirement in Literacy and Critical Inquiry presumes, first, that training in literacy and critical inquiry must be sustained beyond traditional First Year English in order to create a habitual skill in every student; and, second, that the skill levels become more advanced, as well as more secure, as the student learns challenging subject matter. Thus, two courses beyond First Year English are required in order for students to meet the Literacy and Critical Inquiry requirement.

Most lower-level [L] courses are devoted primarily to the further development of critical skills in reading, writing, listening, speaking, or analysis of discourse. Upper-division [L] courses generally are courses in a particular discipline into which writing and critical thinking have been fully integrated as means of learning the content and, in most cases, demonstrating that it has been learned.

Notes:

- 1. ENG 101, 107 or ENG 105 must be prerequisites
- 2. Honors theses, XXX 493 meet [L] requirements
- 3. The list of criteria that must be satisfied for designation as a Literacy and Critical Inquiry [L] course is presented on the following page. This list will help you determine whether the current version of your course meets all of these requirements. If you decide to apply, please attach a current syllabus, or handouts, or other documentation that will provide sufficient information for the General Studies Council to make an informed decision regarding the status of your proposal.

Revised April 2014

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

		ASU - [L] CRITERIA		
		FOR [L] DESIGNATION,THE COURSE DESIGN MUST PLACE A FING CRITICAL DISCOURSEAS EVIDENCED BY THE FOLLO		
YES	NO		Identify Documentation Submitted	
		<b>CRITERION 1:</b> At least 50 percent of the grade in the course should depend upon writing assignments (see Criterion 3). Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report. <i>In-class essay exams may not be used for [L] designation.</i>	X	
fina	al grade th	be the assignments that are considered in the computation of course gradesand in at is determined by each assignment.	ndicate the proportion of the	
2. Also	o:			
		Please <b>circle</b> , <b>underline</b> , <b>or otherwise mark</b> the information presented the most recent course syllabus (or other material you have submitted) the verifies <b>this description</b> of the grading processand label this information "C-1".	<mark>hat</mark>	
<b>C-</b> 1	1			
		<b>CRITERION 2:</b> The writing assignments should involve gathering, interpreting, and evaluating evidence. They should reflect critical inquiry, extending beyond opinion and/or reflection.	X	
1. Plea	ase descri	be the way(s) in which this criterion is addressed in the course design.		
2. Also	0:			
C-	-2	Please <b>circle</b> , <b>underline</b> , or <b>otherwise mark</b> the information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information "C-2".	that	
		<b>CRITERION 3:</b> The syllabus should include a minimum of two writing and/or speaking assignments that are substantial in depth, quality, and quantity. Substantial writing assignments entail sustained in-depth engagement with the material. Examples include research papers, reports, articles, essays, or speeches that reflect critical inquiry and evaluation. Assignments such as brief reaction papers, opinion pieces, reflections, discussion posts, and impromptu presentations are not considered substantial writing/speaking assignments.	X	
cou	urse requir	le relatively detailed descriptions of two or more substantial writing or speaking to ements	asks that are included in the	
2. Also	0:			
	Please <b>circle, underline,</b> or <b>otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading processand label this information "C-3".			
C-3	C-3			

	ASU - [L] CRITERIA				
YES	NO		Identify Documentation Submitted		
		<b>CRITERION 4:</b> These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. <i>Intervention at earlier stages in the writing process is especially welcomed.</i>	X		
	<ol> <li>Please describe the sequence of course assignmentsand the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments</li> </ol>				
2. Also		Please <b>circle</b> , <b>underline</b> , or <b>otherwise mark</b> the information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information presented the most recent course syllabus (or other material you have submitted) verifies <b>this description</b> of the grading processand label this information presented the most recent presented the	that \		

Course Prefix	Number	Title	General Studies Designation
SOS	330	Sustaining the Commons	L

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.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
1	350 out of 700 points (=50% of the grade) are based on substantia writing assignments and a group presentation	In syllabus the relevant sections are high lighted and provided with the C-1 mark. Some comments on the writings. Each week there is a research assignment in which students are asked to apply the material to actual cases for which they need to collect information. For example, finding information on regulations on smoke-free zones in Arizona and applying the framework of the course to this topic.  There is a group project (although the course is online). To increase the quality of the group projects I first have them discussing the good practices of doing group projects. Then they have to propose a plan (and the instructor provides feedback). Then they submit the video presentation (upload it to YouTube), and they will each write an evaluation of the group project (and their contributions). Since this course is about collective action problems, I like them to reflect on the performance of the group project.
2	The Research Assignment requires students to collect data and critically apply the concepts of the course. The course introduces a framework to evaluate collective action problems, and students learn to apply this framework to diverse topics (in the context of sustainability).	The following is an example of an assignment (week 6 as used in Spring 2017). This shows the criteria used to grade the assignment. It shows the importance of references to peerreviewed material and critical thinking.  Discuss governance of infrastructure on water runoff in your town using the concept of coupled infrastructure system. For example, if it rains in Phoenix this is causes many problems and therefore there are rules and protocols. See for example:  https://www.phoenix.gov/waterservicessite/Pages/Stormwater-Management-Program.aspx Phoenix is not a typical place since in most cities it rains much more frequent than Phoenix so there might be different problems and regulations.  The length of the writing is between 800 and 1200 words and you need to provide references if you use resources to support your arguments. Some questions that may help you to craft your essay: Who decides on investments and maintenance of infrastructure? Who is affected if it does not work properly?  Who has to pay? What is the history of the current infrastructure (when was it build)? What could be improved?  Use peer-reviewed literature (besides governmental reports etc) for your research project.  Make sure you provide proper references to your sources (websites, reports, journal articles). See "Resources for course" for information on how to cite your sources properly.

Not citing your sources will lead to a reduction of your grade. The Write up is evaluated on the following 10 points (each worth 5 points): 1. Number of words between 800-1200 2. Correct use of references and citations 3. Use of peer-reviewed scholarly literature (not just sources from websites or magazines) 4. Clear description of the topic at the start of the paper 5. Description of the actors 6. Description of investment and maintenance activities. 7. Describe the distribution of the impact of the performance of the infrastructure (do some neighborhoods/actors get more problems than others?) 8. Description of the history of the system. How did the city come to this situation? 9. Critical thinking: **Good**: Incorporating arguments from a variety of sources. Recognizes & avoids logical flaws & draw explicit connections between information from different sources. **Not good**: Only relying on personal experience, writing in generalities, defends views based on self interest or preconceptions. Merely repeats information as truth or denies evidence without adequate justification. 10. Writing quality. Good. Writing style engages reader. Logical and appropriate organization. Not good. Includes much irrelevant evidence to support vague, undeveloped ideas. No organization. Many grammatical errors. 3 Each week includes a A second example is the assignment for week 7 of Spring writing assignment. The last 2017: two weeks consist of more Write a 1000- to 1500-word essay. References do not substantial writing count for the length of the paper. assignments as these Choose from a topic related to sustainability of your own assignments aim to reflect interest (excluding topics we already did research assignments the accumulated knowledge on during this course). If you have doubts whether it is an derived from the course appropriate topic, contact the instructor. material. The example used What is the problem you are studying? Who are the for criterion 2 is one participants? What is the collective action problem? Discuss example to demonstrate the action situation, social dilemmas, the institutional rules and social norms that are relevant. How does context affect this, and the other example is provided in the next box. the decisions people make in the action situation? It will also help if you describe the biophysical context, and the attributes of the community. What are the incentives people experience? What are the types of rules (boundary rules, position rules, etc), and the difference between shared strategies, norms and rules. The Research Assignment is evaluated on the following 10 points (each worth 7 points): 1. Number of words between 1000-1500 2. Correct use of references and citations 3. Use of peer-reviewed scholarly literature (not just sources from websites or magazines) 4. Clear description of the topic at the start of the paper 5. Description of biophysical context, the attributes of the

communities and the rules in use (external context as in IAD

		T
		framework). 6. Description of social dilemmas /collective action problems involved in your topic. 7. Describe the participants in the action arena, the positions they have and what kind of decisions related to collective action they need to make 8. Description of institutional statements (shared strategies, norms, rules) and description of outcomes from the perspective of different types participants 9. Critical thinking:  Good: Incorporating arguments from a variety of sources. Recognizes & avoids logical flaws & draw explicit connections between information from different sources.  Not good: Only relying on personal experience, writing in generalities, defends views based on self interest or preconceptions. Merely repeats information as truth or denies evidence without adequate justification. 10. Writing quality.  Good. Writing style engages reader. Logical and appropriate organization.  Not good. Includes much irrelevant evidence to support vague, undeveloped ideas. No organization. Many grammatical errors.
4	Each week the students submit a writing assignment. We start with smaller assignments (about 500 words) on specific topics and will provide feedback within 2 days after the deadline on their writing. The feedback focuses on the correct way of applying the course material, the reference of sources for their essay, the logic in their argumentation, and the critical thinking. Students will learn from the feedback that you can do a thoughtful analysis of a policy problem without focusing on personal opinions.  The substantial writing assignments in the last 2 weeks are an accumulation of the topics discussed in the first 5 weeks (during which the students got feedback).	An example of feedback is how the group presentation is setup:  They first submit, on Thursday a plan for the group project (20 points).  We provide the following rubric for the plan of action: 4 points describe the topic you plan to cover 4 points describe the exogenous variables of the IAD framework 4 points describe who are the main participants of the action situation 4 points describe what are the outcomes and what leads to the outcomes 4 points describe a script of the video you plan to make and how you want to record it.  The instructor provides feedback to this plan. On Sunday the Group presentation is submitted (30 points). For the video to be submitted on Sunday you can earn a maximum of 30 points 5 point - Video is complete and of sufficient length 5 points — Video is well-organized and easy to understand (both visually and audibly) 10 points — The topic of the video is well-researched and thoroughly explained 10 points — Concepts from the class are used effectively to explain the chosen topic  Moreover each group member submit individually an assessment of the group project (10 points). They are asked about their role in the project, their strengths and weaknesses during the group project, an evaluation how the group was performing and a reflection how to improve the group project. The aim of this assessment is to stimulate a critical reflection on the group project.

Literacy and Critical Inquiry [L] Page 7							

#### **Course Number**

**SOS 330** 

#### **Course Title**

Sustaining the Commons

#### **Credits**

3

## **Prerequisites**

• SOS 110

• SOS 111

## **Faculty**

Name: Marco A. Janssen Office: Wrigley Hall 362 Phone: (480) 727 - 7067

Email address: Marco.Janssen@asu.edu

**Office hours:** by appointment

## **Catalog Description**

Equips students with tools to analyze the conditions in which communities can be successful in managing their common resources such as forest, water and clean air. Students will learn the institutional analysis and development framework to evaluate such collective action problems. This approach of analysis will be applied to various sustainability topics from irrigation systems and fisheries to climate change and energy systems in urban environments.

#### Course Overview

In 1968 biologist Garrett Hardin wrote the influential essay "The tragedy of the commons" which stated that when people share a common resource they will overharvest the resource because it is in their self-interest. He concluded that to avoid over harvesting, the resource will have to be privatized or the government will have to regulate the use of the common resource. This perspective had a major influence on how environmental problems were addressed.

In 2009 Elinor Ostrom was awarded the Nobel Prize in economics because she demonstrated that Hardin was wrong since people can manage their common resources in a sustainable way. Based on the study of many case studies and behavioral experiments she discovered conditions for success.

In this course we will discuss what Ostrom discovered and find out why some communities are more successful than others in managing their common resources. We study historical and contemporary cases, from marine conservation and groundwater management to forests and climate change, and apply the insights learned to a practical case studies.

#### **Text Book**

We will use the free textbook "Sustaining the Commons" which could be downloaded at https://sustainingthecommons.asu.edu/

## **Learning Outcomes**

At the completion of this course, students will be able to:

- Define institutions, social dilemmas and common resources problems.
- Explain the Institutional Analysis and Development (IAD) Framework
- Apply the IAD framework to various common resource cases.
- Define resilience, robustness and systems
- Discuss the components of coupled infrastructure systems and apply them to sustainability challenges.

## **Course Topics, Schedule & Grading**

Activities used for instruction and assessment of learning include: discussion/presentations; textbook and supplemental readings; assignments; and case scenarios.

"Quizzes" are a mixture of multiple choice and open questions on the readings and the videos.

"Research Assignments" are reports on a specified research activity to apply the week's material to a specific application. You may have to collect data yourselves, or find information in the literature to do the research assignment. The evaluation of this type of assignment include the way new information is collected, processed and acknowledged (citations). C-1.

ACTIVITIES/ASSIGNMENTS	POINTS	DUE DATE All assignments are due at 11:59pm on dates shown
WEEK 1: WHAT ARE THE CO	OMMONS?	
Assignment 1	10	Thursday: Take Syllabus quiz
Assignment 2	5	Thursday: Introductions
Assignment 3	40	Thursday: Quiz Lectures and Chapter 1
Assignment 4	5	Sunday: Experiment

Assignment 5	<mark>40</mark>	Sunday: Research Assignment: C-1		
WEEK 2: INSTITUTIONAL A	WEEK 2: INSTITUTIONAL ANALYSIS OF THE COMMONS			
Assignment 1	60	Thursday: Quiz Videos and Chapters 2-4		
Assignment 2	<mark>40</mark>	Sunday: Research assignment: C-1		
WEEK 3: DESIGN PRINCIPL	ES FOR SU	UCCESS		
Assignment 1	60	Thursday: Quiz Videos and Chapters 5-7		
Assignment 3	<mark>40</mark>	Sunday: Research assignment: C-1		
WEEK 4: HUMAN BEHAVIO	R AND TH	TE COMMONS		
Assignment 2	50	Thursday: Quiz Videos and Chapters 8 and 9		
Assignment 4	<del>50</del>	Sunday: Research assignment: C-1		
WEEK 5: RULES OF THE GA	ME			
Assignment 1	30	Thursday: Quiz Videos and Chapters 10 and 11		
Assignment 2	10	Thursday: Discussion group project		
Assignment 3	20	Thursday: Write up plan group project: C-1		
Assignment 4	<mark>30</mark>	Sunday: Group presentation: C-1		
Assignment 5	10	Sunday: Write-up group process: C-1		
WEEK 6: COUPLED INFRAS	TRUCTUR	RE SYSTEMS		
Assignment 1	50	Thursday: Quiz Videos and Chapters 12 and 13		
Assignment 2	<del>50</del>	Sunday: Research Assignment: C-1		
WEEK 7: THINK GLOBAL, ACT LOCAL				
Assignment 1	30	Thursday: Quiz Videos and Chapters 14 and 15		
Assignment 2	<mark>70</mark>	Sunday: Research assignment: C-1		
Grading				

# Jraumg

Grade	Percentage	<b>Points Range</b>
A	90 – 100%	627 – 700
В	80 – 89%	557 – 626

C	70 – 79%	477 – 556
D	60 – 69%	407 – 476
E/F	Below 60%	406 and below

## **Grading Procedure**

Grades reflect your performance on assignments and adherence to deadlines. Graded assignments will be available within 48 hours of the due date via the Gradebook.

## **Communicating With the Instructor**

This course uses a discussion board called "Hallway Conversations" for general questions about the course. Prior to posting a question, please check the syllabus, announcements, and existing posts. If you do not find an answer, post your question. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor or assigned TA. You can expect a response within 48 hours.

How to write a proper email

Instructors get hundreds of emails a day and will not respond to emails that are not properly crafted. Many students send emails without a subject, without their name, without information which course they are in, without addressing the professor in a proper way or without referring to what part of the course their question is about. Your instructor will automatically delete such emails, so make sure you write a proper email, which has the following structure:

Subject: Question about ...

Dear "Name Instructor",

I am in your SOS 330 course and I have the following question: In Week Y Assignment Z ....

sincerely

"Name student"

#### **Online Course**

This is an online course. There are no face-to-face meetings. You can log into your course via MyASU or https://my.asu.edu.

#### **Email and Internet**

ASU email is an <u>official means of communication</u> 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.

## Netiquette

We expect you to follow the <u>basic rules of netiquette</u>. Be respectful in the communication with others and use the same proper standards of interaction with your classmates as if you had a face-to-face course.

#### **Course Time Commitment**

This three-credit course requires approximately 135 hours of work. Please expect to spend around 18 hours each week preparing for and actively participating in this course.

## **Late or Missed Assignments**

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.

#### **Submitting Assignments**

All assignments, unless otherwise announced, MUST be submitted to the designated area of Blackboard. Do not submit an assignment via email.

# **Drop and Add Dates/Withdrawals**

This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a limited timeline to <u>drop or add the course</u>. Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: <u>Withdrawal from Classes</u>, <u>Medical/Compassionate Withdrawal</u>, and a <u>Grade of Incomplete</u>.

# **Grade Appeals**

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the department chair per the University Policy for Student Appeal Procedures on Grades.

## **Student Conduct and Academic Integrity**

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see <a href="http://provost.asu.edu/academicintegrity">http://provost.asu.edu/academicintegrity</a>. Additionally, required behavior standards are listed in the <a href="Student Code">Student Code</a> of <a href="Conduct and Student Disciplinary Procedures">Computer</a>, <a href="Computer">Computer</a>, <a href="Internet">Internet</a>, and <a href="Electronic Communications policy">Electronic Communications policy</a>, and outlined by the <a href="Office of Student Rights & Responsibilities">Office of Student Rights & Responsibilities</a>. Anyone in violation of these policies is subject to sanctions.

<u>Students are entitled to receive instruction free from interference</u> by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per <u>Instructor Withdrawal of a Student for Disruptive Classroom Behavior</u>.

Appropriate online behavior (also knows as *netiquette*) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

The Office of Student Rights and Responsibilities accepts <u>incident reports</u> from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

## **Prohibition of Commercial Note Taking Services**

In accordance with <u>ACD 304-06 Commercial Note Taking Services</u>, 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 notetaker's name as well as the instructor's name, the course number, and the date.

#### **Course Evaluation**

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available.

## **Syllabus Disclaimer**

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Please remember to check your ASU email and the course site often.

## **Accessibility Statement**

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act as amended (ADAAA) of 2008, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations. Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are responsible for requesting accommodations and providing qualifying documentation to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request an accommodation for a disability should contact the DRC by going to https://eoss.asu.edu/drc, calling (480) 965-1234 or emailing DRC@asu.edu. To speak with a specific office, please use the following information:

## ASU Online and Downtown Phoenix Campus Polytechnic Campus University Center Building, Suite 160

602-496-4321 (Voice)

480-727-1165 (Voice)

#### **West Campus**

University Center Building (UCB), Room 130 602-543-8145 (Voice)

**Tempe Campus** 

480-965-1234 (Voice)

## **Computer Requirements**

This course requires a computer with Internet access and the following:

- Web browsers (Chrome, Internet Explorer, Mozilla Firefox, or Safari)
- Adobe Acrobat Reader (free)
- Adobe Flash Player (free)
- Microphone (optional) and speaker

## **Technical Support**

This course uses Blackboard to deliver content. It can be accessed through MyASU at http://my.asu.edu or the Blackboard home page at https://myasucourses.asu.edu

To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu/.

To contact the help desk call toll-free at 1-855-278-5080.

#### **Student Success**

This is an online course. To be successful:

- check the course daily
- read announcements

- read and respond to course email messages as needed
  complete assignments by the due dates specified
  communicate regularly with your instructor and peers
  create a study and/or assignment schedule to stay on track



# Contents

	Prefe	ace	V
Ι	Тнеог	RETICAL BACKGROUND	
1	Why	Study the Commons?	3
	1.1	What are the commons?	3
	1.2	The tragedy	5
	1.3	The common pasture of Hardin	7
	1.4	The tragedy is not inevitable	9
	1.5	Outline of the book	10
	1.6	Critical reflections	11
	1.7	Make yourself think	11
	1.8	References	11
2	Defi	ning Institutions	13
	2.1	Overview	13
	2.2	Institutional diversity	14
	2.3	How to analyze institutions?	16
	2.4	Action arenas and institutional analysis	17
	2.5	Context of the action arena	21
	2.6	Critical reflections	23
	2.7	Make yourself think	23
	2.8	References	23

3	Actio	Action Arenas and Action Situations			
	3.1	Action arenas	26		
	3.2	The basic working parts of action situations 3.2.1 Participants 3.2.2 Positions 3.2.3 Potential outcomes 3.2.4 Actions 3.2.5 Control 3.2.6 Information about the action situation 3.2.7 Costs and benefits 3.2.8 Linking action situations 3.2.9 Outcomes	28 28 31 32 33 33 34 34 35 36		
	3.3	Critical reflections	37		
	3.4	Make yourself think	37		
	3.5	References	37		
4	Soci	al Dilemmas	39		
	4.1	Introduction	39		
	4.2	Prisoner's dilemma	40		
	4.3	Social dilemmas as an action situation	41		
	4.4	Coordination games	42		
	4.5	A typology of goods	43		
	4.6	Critical reflections	47		
	4.7	Make yourself think	47		
	4.8	References	47		
II	CASE	STUDIES			
5	Wate	er Governance	51		
	5.1	Introduction	51		
	5.2	Water scarcity	55		
	5.3	Water abundance	56		
	5.4	Distribution of water: irrigation	58		
	5.5	Water pollution	60		
	5.6	Critical reflections	62		
	5.7	Make yourself think	62		
	5.8	References	62		

6	Harv	resting From the Commons	63
	6.1	Introduction	63
	6.2	Domesticated animals	64
	6.3	Wild animals	66
	6.4	Forests	69
	6.5	Critical reflections	70
	6.6	Make yourself think	70
	6.7	References	70
7	Desi	Design Principles to Sustain the Commons 7	
	7.1	Introduction	71
	7.2	Institutional design principles	72
	7.3	Examples of design principles	72
		7.3.1 Well-defined boundaries	72
		7.3.2 Proportional equivalence between benefits and costs	73
		7.3.3 Collective-choice arrangements	74
		7.3.4 Monitoring	74
		<ul><li>7.3.5 Graduated sanctions</li><li>7.3.6 Conflict-resolution mechanisms</li></ul>	74 75
		7.3.7 Minimal recognition of rights	75 75
		7.3.8 Nested enterprises	75
	7.4	Using design principles in practice	76
	7.5	Threats to sustainable use of the commons	77
		7.5.1 Rapid exogenous changes	77
		7.5.2 Translation failures	77
		7.5.3 Blueprint thinking	77
		<ul><li>7.5.4 Corruption and rent seeking</li><li>7.5.5 Lack of large-scale supportive institutions</li></ul>	78 78
	7.		
	7.6 7.7	Critical reflections	78 78
		Make yourself think	-
	7.8	References	78
III	Hum	AN BEHAVIOR	
8	Soci	al Dilemmas in the Laboratory	81
	8.1	Experiments in social science	81
	8.2	The trust game	82
	8.3	How people make decisions	84

	8.4	Ultimatum and dictator games	86		
	8.5	Bringing the lab to the field	87		
	8.6	Critical reflections	89		
	8.7	Make yourself think	89		
	8.8	References	90		
9	Self-governance in the Laboratory				
	9.1	Introduction	91		
	9.2	Common-pool resource action situations	91		
	9.3	Changing the CPR action situation 9.3.1 Communication 9.3.2 Costly sanctioning	<b>94</b> 94 96		
	9.4	CPR experiments in the field	97		
	9.5	More dynamic CPR experiments	98		
	9.6	Public good action situations	100		
	9.7	Communication and costly sanctioning	101		
	9.8	Critical reflections	103		
	9.9	Make yourself think	103		
	9.10	References	103		
IV	Rule	ES OF THE GAMES			
10	Class	sifying Rules	107		
	10.1	Introduction	107		
	10.2	How to classify rules	108		
	10.3	The seven types of rules in detail	110		
		10.3.1 Position rules	110		
		10.3.2 Boundary rules	110		
		<ul><li>10.3.3 Choice rules</li><li>10.3.4 Aggregation rules</li></ul>	111 112		
		10.3.5 Information rules	112		
		10.3.6 Payoff rules	113		
		10.3.7 Scope rules	113		
	10.4	Default conditions	114		
	10.5	Critical reflections	115		
	10.6	Make yourself think	115		
	10.7	References	115		

11	Rules	s, Norms and Shared Strategies	117
	11.1	Introduction	117
	11.2	The syntax components  11.2.1 ATTRIBUTES  11.2.2 DEONTIC  11.2.3 AIM  11.2.4 CONDITIONS  11.2.5 OR ELSE	121 121 122 122 123 123
	11.3	How to use the grammar of institutions?	125
	11.4	Critical reflections	125
	11.5	Make yourself think	126
	11.6	References	126
V	A Sys	TEMS PERSPECTIVE	
12	Feed	backs and Stability	129
	12.1	Introduction	129
	12.2	Resilience	131
	12.3	Tipping points	134
	12.4	Managing performance of systems	136
	12.5	Resilience, robustness, and sustainability	137
	12.6	Critical reflections	138
	12.7	Make yourself think	138
	12.8	References	138
13	Coup	oled Infrastructure Systems	139
	13.1	Introduction	139
	13.2	Different types of infrastructure	140
		13.2.1 Hard infrastructure	140
		13.2.2 Soft infrastructure 13.2.3 Natural infrastructure	140 141
		13.2.4 Human infrastructure	141
		13.2.5 Social infrastructure	141
	13.3	Collective action and infrastructure	142
	13.4	Coupled infrastructure systems	142
	13.5	Robustness of coupled infrastructure systems	144
	13.6	Critical reflections	146

	13.7	Make yourself think	146
	13.8	References	147
14	Think	Globally, Act Locally?	149
	14.1	Introduction	149
	14.2	IAD framework and large scale governance	150
	14.3	Polycentric governance	151
	14.4	Global climate change	152
	14.5	Critical reflections	153
	14.6	Make yourself think	154
	14.7	References	154
15	Challenges Ahead		155
	15.1	What have we learned?	155
	15.2	Why are there still so many problems in governance?	158
	15.3	Closing	160
	15.4	Critical reflections	160
	15.5	Make yourself think	160
	15.6	References	160
	Cred	its	161