

# INTEGRATED STUDIES IN SCIENCE, ENGINEERING, AND SOCIETY, CERTIFICATE

The certificate in Integrated Studies in Science, Engineering, and Society Undergraduate (ISSuES) offers undergraduate students an opportunity to explore the social sciences and humanities in a way that emphasizes the relationship between science, technology, medicine, engineering, and society. From energy to communications technologies to gene editing to automation, the interplay between researchers, developers, policy makers and the public is constantly shaping and reshaping our world. The ISSuES certificate allows undergraduate students to complement their majors with a set of courses aimed at helping them understand how society shapes science and how science shapes society.

Offered by the Holtz Center for Science & Technology Studies, ISSuES was designed to help STEM-field majors fulfill their liberal arts requirements, but is highly flexible and is available to all undergraduate students interested in exploring the complex interplay between science, technology, medicine, engineering, and society. For more information, see the program website (<http://sts.wisc.edu>).

## HOW TO GET IN

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The certificate in integrated studies in science, engineering and society (ISSuES) is offered to all undergraduate students. Students should begin the application process by the end of sophomore year, but no later than the end of their junior year.

The first step in applying to the program is to consult with the ISSuES certificate advisor. To make an appointment, please send an email to [sts@ssc.wisc.edu](mailto:sts@ssc.wisc.edu).

## REQUIREMENTS

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### 15 CREDITS, TO INCLUDE: <sup>1</sup>

Code	Title	Credits
STS 201	Where Science Meets Society	3
<b>9 credits from one focus area:</b>		<b>9</b>

#### Ethics:

ED PSYCH 301	How People Learn
ENVIR ST 112	Environmental Studies: Social Science Perspectives
ENVIR ST 402	Special Topics: Social Perspectives in Environmental Studies
HIST SCI 133	Biology and Society, 1950 - Today
HIST SCI 201	The Origins of Scientific Thought
HIST SCI 202	The Making of Modern Science

HIST SCI/ MED HIST 212	Bodies, Diseases, and Healers: An Introduction to the History of Medicine
HIST SCI 222	Technology and Social Change in History
HIST SCI/ AFROAMER 275	Science, Medicine, and Race: A History
HIST SCI/ MED HIST/ RELIG ST 331	Science, Medicine and Religion
HIST SCI/ HISTORY/ MED HIST 394	Science in America
HIST SCI/ MED HIST/ POP HLTH 553	International Health and Global Society
HIST SCI/ MED HIST 668	Topics in History of Medicine
HISTORY/ ENVIR ST/ GEOG 460	American Environmental History
MED HIST/ HIST SCI/ HISTORY 507	Health, Disease and Healing I
MED HIST/ PHILOS 515	Public Health Ethics
MED HIST 699	Independent Study in Medical History
PHILOS 241	Introductory Ethics
PHILOS 243	Ethics in Business
PHILOS 320	Philosophy of Science
PHILOS 341	Contemporary Moral Issues
PHILOS/ ENVIR ST 441	Environmental Ethics
PHILOS 541	Modern Ethical Theories
<b>Leadership:</b>	
A A E/ AGRONOMY/ NUTR SCI 350	World Hunger and Malnutrition
ENVIR ST/ POP HLTH 471	Introduction to Environmental Health
GEOG/ ENVIR ST 139	Global Environmental Issues
HIST SCI/ S&A PHM 401	History of Pharmacy
LSC 100	Science and Storytelling
LSC 350	Visualizing Science and Technology
LSC 625	Risk Communication
M H R 300	Managing Organizations
POLI SCI 104	Introduction to American Politics and Government
POLI SCI 184	Introduction to American Politics
POLI SCI/ LEGAL ST 217	Law, Politics and Society
SOC/ C&E SOC 245	Technology and Society

SOC WORK 206	Introduction to Social Policy
<i>Design:</i>	
ART 102	Two-Dimensional Design
ART 104	Three-Dimensional Design
ART 107	Introduction to Digital Forms
ART 108	Foundations of Contemporary Art
ART 112	Drawing I
ART 212	Drawing Methods & Concepts
ART 334	Wood Working
ART 448	Special Topics
ART 534	Advanced Wood Working
ART HIST 202	History of Western Art II: From Renaissance to Contemporary
ART HIST 354	Cross-Cultural Arts Around the Atlantic Rim: 1800 to the Present
ART HIST/ ASIAN 379	Cities of Asia
ART HIST 567	Proseminar in American Architecture
DS 120	Design: Fundamentals I
DS 210	Fashion Illustration
DS 220	Design: Fundamentals II
DS 221	Person and Environment Interactions
DS 642	Taste
ENVIR ST/ GEOG 139	Global Environmental Issues
HIST SCI 350	Special Topics in the History of Science
JOURN 415	Science and Environmental Journalism
LAND ARC 250	Survey of Landscape Architecture Design
LSC 440	Digital Media and Science Communication
M H R 300	Managing Organizations
PHILOS 241	Introductory Ethics
SOC/ C&E SOC 245	Technology and Society
<i>General:</i>	
AFROAMER 272	Race and American Politics from the New Deal to the New Right
ANTHRO 104	Cultural Anthropology and Human Diversity
ART 107	Introduction to Digital Forms
COM ARTS 200	Introduction to Digital Communication
COM ARTS 472	Rhetoric and Technology
CURRIC 277	Videogames & Learning
DS 120	Design: Fundamentals I
ENVIR ST 112	Environmental Studies: Social Science Perspectives
ENVIR ST/ GEOG 339	Environmental Conservation

HISTORY/ HIST SCI/ MED HIST 507	Health, Disease and Healing I
HIST SCI 201	The Origins of Scientific Thought
HIST SCI 202	The Making of Modern Science
HIST SCI 222	Technology and Social Change in History
HIST SCI/ AFROAMER 275	Science, Medicine, and Race: A History
HIST SCI/ AFROAMER/ MED HIST 523	Race, American Medicine and Public Health
MED HIST/ HIST SCI/ HISTORY 507	Health, Disease and Healing I
MED HIST/ HIST SCI 509	The Development of Public Health in America
PHILOS 101	Introduction to Philosophy
POP HLTH/ HIST SCI/ MED HIST 553	International Health and Global Society
PSYCH/ I SY E 349	Introduction to Human Factors
ZOOLOGY/ BOTANY/ ENVIR ST 260	Introductory Ecology
<b>Capstone—one from:<sup>2</sup></b>	
ART 448	Special Topics
ART 534	Advanced Wood Working
ART HIST 567	Proseminar in American Architecture
DS 642	Taste
GEOG 342	Geography of Wisconsin
HIST SCI/ AFROAMER/ MED HIST 523	Race, American Medicine and Public Health
HIST SCI/ MED HIST 668	Topics in History of Medicine
LSC 625	Risk Communication
MED HIST/ HIST SCI/ HISTORY 507	Health, Disease and Healing I
MED HIST/ HIST SCI 509	The Development of Public Health in America
MED HIST 699	Independent Study in Medical History
PHILOS 341	Contemporary Moral Issues
POP HLTH/ HIST SCI/ MED HIST 553	International Health and Global Society
PSYCH/ I SY E 349	Introduction to Human Factors
STS 699	Directed Study

**Total Credits****15**

<sup>1</sup> Courses taken with the pass/fail grade option do not apply to the certificate.

<sup>2</sup> Courses used for the Focus area cannot also count for Capstone.

## RESIDENCE AND QUALITY OF WORK

- 2.000 GPA on all courses counting toward the certificate and certificate approved courses
- 8 credits in the certificate, in residence

## CERTIFICATE COMPLETION REQUIREMENT

This undergraduate certificate must be completed concurrently with the student's undergraduate degree. Students cannot delay degree completion to complete the certificate.

### LEARNING OUTCOMES

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1. Be exposed to the social sciences and humanities and see their relevance to scientific and technological enterprises.
2. Develop the capacity for interdisciplinary, critical thinking about the relationship between science, technology, engineering, medicine and society.
3. Develop a sense of personal and social responsibility for their engineering, scientific or other professional practice.
4. Strengthen written communication skills.

### ADVISING AND CAREERS

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### ADVISING

To obtain advising assistance, students should consult with the ISSuES certificate advisor. To make an appointment, send an email to [sts@ssc.wisc.edu](mailto:sts@ssc.wisc.edu).

All UW–Madison undergraduates are encouraged to begin working on their career exploration and preparation soon after arriving on campus. We partner with SuccessWorks at the College of Letters & Science. L&S graduates are in high demand by employers and graduate programs, and the ISSuES certificate provides students with a way to integrate their liberal studies with the skills they are developing in their majors. It is important to us that our students are career ready at the time of graduation, and we are committed to your success. Students who have completed the certificate say that it helped them enhance the portfolio of skills they offered to employers and graduate programs by giving them foundations for understanding and communicating effectively about the ethical, policy, design, and other non-technical aspects of science, engineering, and medicine.

## L&S CAREER RESOURCES

Every L&S major opens a world of possibilities. SuccessWorks (<https://successworks.wisc.edu/>) at the College of Letters & Science helps students turn the academic skills learned in their major, certificates, and other coursework into fulfilling lives after graduation, whether that means jobs, public service, graduate school or other career pursuits.

In addition to providing basic support like resume reviews and interview practice, SuccessWorks offers ways to explore interests and build career skills from their very first semester/term at UW all the way through graduation and beyond.

Students can explore careers in one-on-one advising, try out different career paths, complete internships, prepare for the job search and/or graduate school applications, and connect with supportive alumni and even employers in the fields that inspire them.

- SuccessWorks (<https://careers.ls.wisc.edu/>)
- Set up a career advising appointment (<https://successworks.wisc.edu/make-an-appointment/>)
- Enroll in a Career Course (<https://successworks.wisc.edu/career-courses/>) – a great idea for first- and second-year students:
  - INTER-LS 210 L&S Career Development: Taking Initiative (1 credit)
  - INTER-LS 215 Communicating About Careers (3 credits, fulfills Comm B General Education Requirement)
- Learn about internships and internship funding (<https://successworks.wisc.edu/finding-a-job-or-internship/>)
  - INTER-LS 260 Internship in the Liberal Arts and Sciences
- Activate your Handshake account (<https://successworks.wisc.edu/handshake/>) to apply for jobs and internships from 200,000+ employers recruiting UW–Madison students
- Learn about the impact SuccessWorks has on students' lives (<https://successworks.wisc.edu/about/mission/>)