

Science Translation and Outreach

College of Agriculture, Food & Environment

Master of Science in Science Translation and Outreach

The College of Agriculture, Food, and Environment offers a fully online Master of Science (MS) degree in Science Translation and Outreach (Plan B Non-thesis option).

Application Requirements

- A one- to two-page resume or curriculum vitae (CV)
- Personal statement describing your background and interest in the program
- Official transcript(s) for prior studies in higher education
- GRE or GMAT scores
- Three letters of recommendation

Degree Requirements

Science Translation and Outreach students complete 12 hours of core courses and 18 hours of elective courses.

You will create your individualized plan of study with the help of a faculty committee and culminate your degree with a real-world capstone outreach project.

Required Coursework

- STO 601 - Program Development & Evaluation
- STO 602 - Science Literacy and Translation
- STO 603 - Research Methods
- STO 650 - Capstone in Science Translation

Elective Courses

In order to customize the degree to students' unique interests and career goals, STO students take 18 credit hours of elective courses. Within the College of Agriculture, Food and Environment, students may choose online courses within the following departments:

- Agricultural Economics
- Animal and Food Sciences
- Community and Leadership Development
- Dietetics and Human Nutrition
- Entomology
- Family and Consumer Sciences
- Family Sciences

- Forestry
- Horticulture
- Plant and Soil Sciences
- Plant Pathology
- Positive Youth Development
- Retailing and Tourism Management

Elective courses from other programs and colleges may be considered with the approval of a student's advisory committee and the STO Director of Graduate Studies.

To better understand the variety of suitable potential electives, STO students have recently taken:

- BAE 532 Intro to Stream Restoration
- CPH 603 Data Analysis
- CLD 685 Community Development Theory & Practice
- DHN 597 Obesity and Food Insecurity Paradigm
- ENT 561 Insects Affecting Human & Animal Health
- FCS 620 Working with Diverse Families in Culturally Sensitive Contexts
- HMT 570 Event Planning and Coordination
- PPA 640 Identification of Plant Diseases
- PYD 620 Foundations of Positive Youth Development, and many more

Course Descriptions

STO 601 PROGRAM DEVELOPMENT AND EVALUATION. (3) The purpose of this course is to provide a basic understanding of program evaluation processes, concepts, and theories and to develop expertise needed to design and conduct systematic evaluations of formal and non-formal programs. The material to be covered is applicable to a wide range of topics and disciplines, including social welfare, youth development, family studies, agriculture and the environment, community/economic development, and other formal and non-formal educational programs. Such programs have a common goal of achieving their desired objectives and being held accountable for the resources they obtain from agencies and stakeholders.

Because program evaluation is part of a larger interdisciplinary content area that includes research design and methods, the course will briefly cover needs assessment and asset building, with program development also being a necessary component. The majority of the course will focus on evaluation design, methods, and implementation. A range of program evaluation and research methods will be presented, and students will be encouraged to identify those approaches that most closely match their own philosophical perspectives, as well as strategies that will be utilized by their groups, organizations and current/future employers. Students will participate in class discussions and activities, reflecting on any experience working with community programs when applicable. Web-based publications, journal articles and the assigned text readings will comprise the content of the course. Prereq: Admission to

the UK graduate school; students in good standing; Degree-seeking student in the Science and Translation program in the College of Agriculture, Food and Environment. (Same as CLD 665/SOC 665.)

STO 602 SCIENCE LITERACY AND TRANSLATION. (3) Students will explore, translate and interpret scientific findings into application and policy through the new Master of Science curriculum in Science Translation and Outreach. Readings will focus on basic principles and theories relevant to scientific literacy and the public perception and trust of scientific information. Where possible, we will use current controversial topics as examples. In this course, students will enhance their scientific literacy and learn to evaluate the credibility of sources of scientific information principally by:

- Examining scientific methodologies including its potential and limitations;
- Practicing critical and reflective thinking on relevant scientific issues;
- Reviewing scientific literature and evaluating its merits;
- Designing an original, evidence-based research plan on a public interest issue.

Prereq: Admission to the UK Graduate School: Student in good standing. Degree-seeking student in the Science and Translation program in the College of Agriculture, Food and Environment.

STO 603 RESEARCH METHODS. (3) This course provides students with foundational knowledge for scientific inquiry and the use of research to inform evidence-based practice. It covers fundamentals of understanding, analyzing, and critiquing research, through an exposure to science philosophy and techniques used to conduct scientific investigations. It covers aspects of the research process from developing a research question to writing the research report. Students will be introduced to qualitative and quantitative research design, methodology, and ethical issues associated with conducting and evaluating research. Prereq: Admission into the Graduate School; degree-seeking student in good standing in the Science Translation and Outreach program in the College of Agriculture, Food and Environment.

STO 650 CAPSTONE IN SCIENCE TRANSLATION AND OUTREACH. (3) Students will integrate transdisciplinary learning obtained through the Master of Science curriculum in Science Translation and Outreach. Students will: identify an issue of public interest; design an original, evidence-based project of applied research and/ or outreach to address the issue; develop an evaluation plan for the project; and, as time and resources permit, execute the project in part or in its entirety. Prereq: Admission into the Graduate School; degree-seeking student in good standing in the Science Translation and Outreach program in the College of Agriculture, Food and Environment; STO 601, STO 602, STO 603.