SOCIOLOGY

Dual-Titles Dual-Title M.A. and Ph.D. in Sociology and Demography

Requirements listed here are in addition to requirements listed in GCAC-208 Dual-Title Graduate Degree Programs (https:// gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/ gcac-208-dual-titles/).

Admission Requirements

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can be admitted to a dual-title degree program. Applicants interested in the dual-title degree program may note their interest in their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Demographic research. After admission to their primary program, students must apply for admission to and meet the admissions requirements of the Demography dual-title program. Refer to the Admission Requirements section of the Demography Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/demography/). Students admitted to the Sociology program will be admitted to the dualtitle program in Demography upon the recommendation of a Demography Program faculty member in Sociology. Ph.D. students must apply and be admitted to the dual-title degree program in Demography prior to taking the qualifying exam.

Degree Requirements

To qualify for the dual-title degree, students must satisfy the degree requirements for the degree they are enrolled in Sociology. In addition, students must complete the degree requirements for the dual-title in Demography, listed on the Demography Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/demography/).

Degree Requirements for the Dual-Title M.A.

Dual-title M.A. students must complete four courses in demography, one in each of the following pedagogic categories:

- 1. Demography Survey Course (if a population survey course was not completed as an undergraduate),
- 2. Demographic Methods Course,
- 3. Seminar in Demographic Processes, and
- 4. Population Studies Seminar.

Multiple courses are offered in each of these categories each year, and many of the courses can be taken within the sociology department and counted toward sociology degree requirements. Dual-title M.A. students must write a thesis on a topic that draws on research questions and literature from both sociology and demography.

Degree Requirements for the Dual-Title Ph.D.

Students pursuing the dual-title Ph.D. in Sociology and Demography select demography as their major area of specialization. However, dual-title students must complete a total of 24 course credits (12 credits, or 4 courses, at the M.A. plus 12 additional credits distributed among pedagogic categories) in demography. Some of these courses must be completed in disciplines outside the Department of Sociology. All demography courses taken within the sociology department can count toward both the sociology and demography degrees.

Qualifying Examination Committee and Exam

The qualifying examination committee will be composed in accordance with rules of the Sociology Ph.D. and will include an evaluation of at least one Graduate Faculty member from the Demography Program. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role.

The dual-title degree will be guided by the qualifying exam procedure of the Sociology graduate program. The qualifying exam for the dualtitle degree will occur as soon as possible after completion of the M.A. requirements. There will be a single qualifying examination to assess both Sociology and Demography. Because students must first be admitted to a graduate major program of study before they may apply to and be considered for admission into a dual-title graduate degree program, dual-title graduate degree students may require an additional semester to fulfill requirements for both areas of study and, therefore, the qualifying examination may be delayed one semester beyond the normal period allowable.

Ph.D. committee Composition

In addition to the general Graduate Council requirements for Ph.D. committees (http://gradschool.psu.edu/graduate-education-policies/ gcac/gcac-600/phd-dissertation-committee-formation/), the Ph.D. committee of a Sociology and Demography dual-title Ph.D. student must include at least two members of the Demography Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the Graduate Faculty in Demography, one member of the committee representing Demography must be appointed as co-chair.

Comprehensive Exam

After completing all course work, doctoral students in the dual-title doctoral degree program in Sociology and Demography must pass a comprehensive examination that includes written and oral components. Written components will be administered in a candidate's major sociology area of concentration in Demography and the chosen minor area. The Demography representative(s) on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination. The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Demographic content.

Dissertation and Dissertation Defense

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Demography. The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.

Dual-Title Ph.D. in Sociology and Social Data Analytics

Requirements listed here are in addition to requirements listed in GCAC-208 Dual-Title Graduate Degree Programs (https:// gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/ gcac-208-dual-titles/).

Sociology doctoral students seeking to attain and be identified with an interdisciplinary array of tools, techniques, and methodologies for social data analytics, while maintaining a close association with sociology, may apply to pursue a dual-title Ph.D. in Sociology and Social Data Analytics.

Social data analytics is the integration of social scientific, computational, informational, statistical, and visual analytic approaches to the analysis of large or complex data that arise from human interaction. The dualtitle Ph.D. program provides additional training with the aim of providing scientists with the skills required to expand the field of social data analytics, creatively to answer important social scientific questions, and communicate effectively with both academic and nonacademic audiences.

Admission Requirements

Students must apply and be admitted to the graduate program in Sociology and the Graduate School before they can apply for admission to the dual-title degree program. Applicants interested in the dualtitle degree program may note their interest in the program on their applications to Sociology and include remarks in their personal statements, in which they address the ways in which their research and professional goals in sociology reflect related interests in Social Data Analytics-related research.

After admission to their primary program, students must apply for admission to and meet the admissions requirements of the Social Data Analytics dual-title program. Refer to the Admission Requirements section of the Social Data Analytics Bulletin page (http:// bulletins.psu.edu/graduate/programs/majors/social-data-analytics/).

To be enrolled in the dual-title doctoral degree program in Social Data Analytics, a student must submit a letter of application and transcript, which will be reviewed by the Social Data Analytics Admissions Committee. An applicant must have a minimum grade point average of 3.0 (on a 4-point scale) to be considered for enrollment in the dual-title degree program. Students must be admitted into the dual-title degree program in Social Data Analytics no later than the end of the fourth semester (not counting summer semesters) of entry into the primary Ph.D. program and before taking the comprehensive exam.

Degree Requirements

To qualify for the dual-title degree, students must satisfy the requirements of the Ph.D. in Sociology. In addition, students must complete the degree requirements for the dual-title in Social Data Analytics, listed on the Social Data Analytics Bulletin page (http://bulletins.psu.edu/graduate/programs/majors/social-data-analytics/). Within this framework, final course selection is determined by the student in consultation with academic advisers from their home department adviser and Social Data Analytics.

The minimum course work requirements for the dual-title Ph.D. in Sociology and Social Data Analytics are as follows:

- · Course work and other requirements of the Ph.D. in Sociology.
- SODA 501 (3 credits)
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- 12 or more elective credits in Social Data Analytics from a list of courses maintained by the Social Data Analytics Committee. Collectively the elective credits must satisfy the following requirements:
 - (A) Core analytics distribution. 3 or more credits in courses focused on statistical learning, machine learning, data mining, or visual analytics. Courses approved as meeting this requirement are designated (A) on the list of approved electives.
 - (Q) Quantification distribution. 6 or more credits in courses focused on statistical inference or quantitative social science methodology. Courses approved as meeting this requirement are designated (Q) on the list of approved electives. (A Sociology Ph.D.

student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)

- (C) Computational / informational distribution. 6 or more credits in courses focused on computation, collection, management, processing, or interaction with electronic data, especially at scale. Courses approved as meeting this requirement are designated (C) on the list of approved electives.
- (S) Social distribution. 6 or more credits in courses with substantial content on the nature of human interaction and/or the analysis of data derived from human interaction and/or the social context or ethics or social consequences of social data analytics. Courses approved as meeting this requirement are designated
 (S) on the list of approved electives. (A Sociology Ph.D. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)
- · Cross-departmental distribution.
 - 3 or more credits in approved courses with the prefix STAT or that of a primarily social science department. (A Sociology. student would typically satisfy this distribution requirement as a function of completing the requirements of the Sociology Ph.D.)
 - 3 or more credits in approved courses with the prefix IST, GEOG, or that of a primarily computer science or engineering department.
 - · 6 or more credits in approved courses outside Sociology.
 - 3 or fewer credits in approved courses at the 400-level.

Students or faculty may request that the Social Data Analytics Committee consider approval of elective designations for any course, including temporary approvals for experimental or variable-title courses. Students are encouraged to take interdisciplinary courses that carry multiple (A), (Q), (C), (S) designations, as well as to select SODA electives that also meet requirements of the primary program. In particular, the 12 elective credits can be met with as few as 6 credits of appropriately chosen course work. Within this framework, final course selection is determined by the student in consultation with academic advisers from Sociology and Social Data Analytics. There is no formal maximum number of credits from the primary SOC degree that can be doublecounted toward the SODA degree. For those meeting the SODA elective requirement with the minimum of 12 credits, the outside-program minimum effectively limits the number of primary degree SOC credits that count toward SODA at 6. Ph.D. committees may limit the number of credits taken for the SODA degree that can count toward the primary graduate program degree requirements.

Qualifying Exam

The qualifying examination in Sociology satisfies the qualifying exam requirement for the dual-title degree program in Social Data Analytics.

Ph.D. committee Composition

In addition to the general Graduate Council requirements for Ph.D. committees (http://gradschool.psu.edu/graduate-education-policies/ gcac/gcac-600/phd-dissertation-committee-formation/), the Ph.D. committee of a Sociology and Social Data Analytics dual-title doctoral degree student must include at least one member of the Social Data Analytics Graduate Faculty. Faculty members who hold appointments in both programs' Graduate Faculty may serve in a combined role. If the chair of the committee representing Sociology is not also a member of the Graduate Faculty in Social Data Analytics, the member of the committee representing Social Data Analytics must be appointed as cochair.

Comprehensive Exam

After completing all course work, doctoral students in the dual-title doctoral degree program in Sociology and Social Data Analytics must pass a comprehensive examination that includes written and oral components.

Written components will be administered in the student's major sociology area of concentration and Social Data Analytics (acting as the minor area). The Social Data Analytics representative(s) on the student's Ph.D. committee will develop questions for and participate in the evaluation of the comprehensive examination.

The oral component of the comprehensive involves the defense of a dissertation prospectus, which must contain substantial Social Data Analytics content.

Dissertation and Dissertation Defense

Upon completion of the doctoral dissertation, the candidate must pass a final oral examination (the dissertation defense) to earn the Ph.D. degree. Students enrolled in the dual-title program are required to write and orally defend a dissertation on a topic that reflects their original research and education in Sociology and Social Data Analytics. The dissertation must be accepted by the Ph.D. committee, the head of the graduate program, and the Graduate School.