ESTABLISHING GRADUATE CERTIFICATES
ARIZONA STATE UNIVERSITY
GRADUATE EDUCATION

This form should be used by programs seeking to establish a new graduate certificate. All sections should be completed.

The graduate certificate is a programmatic or linked series of courses in a single field or in one that crosses disciplinary boundaries. The graduate certificate facilitates professional growth for people who already hold the baccalaureate degree, and it may be freestanding or linked to a degree program. The graduate certificate enables the university to respond to societal needs while promoting university cooperation with corporate, industrial, and professional communities.

Submit the completed and signed (chairs, unit deans) proposal to the Office of Graduate Academic Programs in Graduate Education. Mail code: 1003 and electronic copies to eric.wertheimer@asu.edu or amanda.morales-calderon@asu.edu.

Please type.

<table>
<thead>
<tr>
<th>Contact Name(s):</th>
<th>Contact Phone(s): 480-965-5005</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Schaefer</td>
<td>H. Russell Bernard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College:</th>
<th>Department/School: School of Geographical Sciences and Urban Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of proposed Certificate: Social Science Research Methods</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requested Effective Term and Year: Fall 2016 (e.g., Fall 2014)</th>
</tr>
</thead>
</table>

1. OVERVIEW. Below, please provide a brief overview of the certificate, including the rationale and need for the program, potential size and nature of the target audience, information on comparable programs (at ASU and/or peer institutions), how this program would relate to existing programs at ASU, and any additional appropriate information.

The Arizona State University graduate certificate in Social Science Research Methods is an elective-driven curriculum of 18 credit hours (6 courses) offered in face-to-face course and hybrid format. The program, which is proposed to begin in Fall 2016, assists students, who may be specialized researchers or other professionals, in developing skills in quantitative research methods, including data acquisition and interpretation of data through structured data analysis. The certificate harnesses the significant body of existing methods courses across the university and provides students with the diversity of courses needed to create a core curriculum. Students enrolling in the program must have already completed an initial course in statistics (e.g., STP 530 Applied Regression Analysis, CRJ 504 Statistical Tools for Criminology and Criminal Justice, POS 603 Polimetrics I, NUR 617 Foundational Concepts in Science and Statistics, or equivalent with approval of the academic unit) and will complete one required core course in multivariate regression as a part of the program. They will then be able to choose from a list of electives and research courses that builds on that base. Students enrolled in the certificate program must adhere to Graduate Education policy including any admission and time limit requirements.

Certificate rationale: In our increasingly global society, employers in the private and public sectors alike seek employees who understand how to focus on important research questions and how to collect and analyze data to answer those questions. This certificate will encourage existing students to participate in cross-disciplinary research across the university while being enrolled in a degree program (or non-degree seeking students) to acquire skills in the collection and analysis of data on human thought and human behavior. This program will make courses in social science research methods more accessible and will offer students opportunities to conduct and interpret social science research data for current and future research projects. This, in turn, will enhance students’ career opportunities. Studies have shown a growing perception by organizational leadership of a disconnect between what college graduates learn in schools and what they are equipped to
The social sciences have produced technologies that affect our lives every day, in polling, in marketing and consumer behavior, in organizational management, in public health, and in all areas of risk management (i.e., banking and insurance). The information-packed visualization methods we take for granted today across the sciences, such as multidimensional scaling, got their start in social science. The focus of the Social Science Research Methods certificate program will be to advance the careers of students by giving them the advanced skills in social science research methods that many employers value. These skills include oral and written communication, critical thinking, and the ability to work in teams and solve problems. These last skills are the focus of many courses in colleges and universities. Completion of this certificate program will give students the added abilities in data collection, data management, and data analysis that are difficult to acquire in most programs but are offered in part in many programs. (See Learning Outcomes)

The goals of this program:

- Provide ASU graduates with the social science research methods skills they need to find good jobs and fulfill career goals.
- Attract working professionals, non-traditional, and non-degree seeking students to ASU.
- Increase the competitive stance of ASU’s social science research course offerings.
- Provide interdisciplinary training in social science research methods to students across campus.
- Increase interdisciplinary cooperation between schools, departments, and campuses at ASU.
- Potentially develop relationships with national and international organizations and research institutions.

A key feature of this program is a focus on skills in collecting and analyzing social science data. This, in turn, will provide students and professionals with the ability to analyze and interpret various types of data. Students will be able to demonstrate skills in statistical analysis and in a selection of methods related to their interests. This stand-alone certificate will complement other existing advanced degree programs and will engage potential students who are interested in developing their research skills beyond those available in any single degree.

### 2. ADMINISTRATION AND RESOURCES

**A. How will the proposed certificate be administered (including recommendations for admissions, student advisement, retention etc.)?** Describe the administering body in detail, especially if the proposed certificate is part of a larger interdisciplinary agenda. How will the graduate support staffing needs for this proposed certificate program be met?

The Graduate Certificate in Social Science Research Methods will be centrally administered by the support staff infrastructure already in place through the School of Geographical Sciences and Urban Planning (SGSUP) in cooperation with the Institute of Social Science Research (ISSR). Dr. David Schaefer, Associate Professor, School of Human Evolution and Social Change (SHESC), will serve as the program director. Upon admission to the program, each student will be assigned an advisor who will assist the student with course selection and with developing a plan of study to ensure that certificate requirements are being met. With regard to retention, the advisor will also follow up with advisees each semester to make sure that students are progressing well.

**B. What are the resource implications for the proposed certificate, including projected budget needs?**

*Will new books, library holdings, equipment, laboratory space and/or personnel be required now or in the future? If multiple units/programs will collaborate in offering this certificate, please discuss the resource contribution of each participating program. Letters of support must be included from all academic units that will commit resources to this certificate program.*

- The Social Science Research Methods certificate program involves faculty in a variety of disciplines across ASU campuses, but SGSUP and ISSR will provide staff support for this new certificate program.
- The existing ASU Library resources are sufficient for students in the certificate program.
- See attached messages from supporting units for additional advisement and faculty support.

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3. ADMISSIONS PROCEDURES AND CRITERIA

A. Admission criteria – Applicants must meet the admissions criteria for Graduate Education. Please also include any other additional admission requirements (e.g., type of undergraduate degree, minimum GPA, tests, and/or entry-level skills) that are required for this certificate program. (http://graduate.asu.edu/sites/default/files/GraduatePolicies_1.pdf)

Degree(s):

Potential applicants who hold a minimum of a bachelor’s degree from regional, national, internationally accredited institutions, and from any field/discipline (e.g., Human Development, Sustainability, Geography, Political Science, including other areas with approval of the academic unit) are eligible to apply to the program.

Applicants will be required to submit an official ASU Graduate Admission online application and official transcripts from all undergraduate and graduate institutions.

A statement of interest explaining how the certificate program will enhance graduate studies or professional work is required.

Applicants must have completed an introductory statistics course in statistics (e.g., STP 530 Applied Regression Analysis, CRJ 504 Statistical Tools for Criminology and Criminal Justice, POS 603 Polimetrics I, NUR 617 Foundational Concepts in Science and Statistics, or equivalent with approval of the academic unit) before admission to the program.

GPA: Minimum of a 3.00 cumulative GPA (scale is 4.0=A) in the last 60 hours of a student’s first bachelor’s degree program. Minimum of 3.00 cumulative GPA (scale is 4.0 = A) in an applicable Master’s degree.

English Proficiency Requirement for International Applicants: (See Graduate Education policies and procedures) (http://graduate.asu.edu/admissions/international/english_proficiency):

Same as Graduate Education requirement.

Required Admission Examinations: ☐GRE ☐GMAT ☐Millers Analogies ☒None required

B. Application Review Terms

Indicate all terms for which applications for admissions are accepted:

To select desired box, place cursor on the left side of the box, right click mouse, select Properties, under Default Value select Checked, press OK and the desired box will be checked

☑ Fall (year): 2016
☑ Spring (year): 2017

Note: Applications will be rolling every fall and spring terms after this.
C. Projected annual admission/enrollment

How many students will be admitted immediately following final approval of the certificate? What are enrollment projections for the next three years?

<table>
<thead>
<tr>
<th>Please utilize the following tabular format.</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students Majoring (Headcount)</td>
<td>5</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

4. ACADEMIC REQUIREMENTS

A. Minimum credit hours required for certificate (15 credit hour minimum)

18

B. Please describe the primary course delivery mode, (e.g., online, face-to-face, off-site, etc.). Please note: If this proposed initiative will be offered completely online, clearly state that in this section.

Face-to-face and hybrid format

C. As applicable, please describe culminating experience required (e.g., internship, project, research paper, capstone course, etc.)

The Social Science Research Methods certificate program will require students to take a 3-credit culminating experience course (GCU 593 Applied Project) as the final step in completing the program. The goal of this course is to integrate the knowledge and experiences from prior courses through a project that will help ensure that students in the Social Science Research Methods certificate program can apply social science concepts in real-world problem solving settings.

D. What knowledge, competencies, and skills (learning outcomes) should graduates have when they complete this proposed certificate program? Examples of program learning outcomes can be found at [https://uoeee.asu.edu/program-outcomes](https://uoeee.asu.edu/program-outcomes).

Learning Outcome 1: Graduates from the Social Science Research Methods certificate program will have the ability to find a problem that social science methods are appropriate to solve.

Learning Outcome 2: Graduates from the Social Science Research Methods certificate program will have the ability to solve a problem using social science methods. This will involve skills in data collection, data management, and data analysis, as well as skills in oral and written communication, critical thinking, and the ability to work in teams and solve problems. This set of skills is difficult to acquire in most programs but are offered in part in many programs.

E. How will students be assessed and evaluated in achieving the knowledge, competencies, and skills outlined in 4.D. above? Examples of assessment methods can be found at [http://www.asu.edu/oue/assessment.html](http://www.asu.edu/oue/assessment.html).

**Outcome 1.** Graduates from the Social Science Research Methods certificate program will have the ability to create a problem statement that social science methods are appropriate to solve.

**Measure 1.** As part of the applied project (GCU 593), a faculty member, instructor, or faculty associate will evaluate the creation of a research problem statement. The validated rubric (see rubric below) will be used to conduct the assessment of the problem statement and will give the students a total score of 1–3 (3 being the highest).

**Performance Criterion 1.** 80% of students must demonstrate the ability to generate a problem statement in their topical domain by earning at least an average score of 2. If not, they will be asked to incorporate creating a problem statement from some of the content in one of their elective courses for reassessment.

**Measure 2.** Students will submit a paper as part of the applied project for the certificate that has a problem statement explicitly identified. The instructor will evaluate the problem statement based on the validated rubric.
Performance Criterion 2. The problem statement to be evaluated with an average score of 2 by the supervising faculty or academic professional.

Outcome 2. Graduates from the Social Science Research Methods certificate program will have the ability to solve a research problem using social science methods. This will involve skills in data collection, data management, and data analysis, as well as skills in oral and written communication, critical thinking, and the ability to work in teams and solve problems. This full set of skills is difficult to acquire in most programs but are offered in part in many programs.

Measure 1. Students will deliver an oral presentation of their applied project to supervising faculty and student peers. They will be evaluated on the quality of their project and their ability to solve a research problem.

Performance Criterion 1. 80% of students must demonstrate the ability of critically evaluating a paper in discipline-based education research by getting either a 4 or a 5 using the rubric below.

5 - Greatly exceed expectations: Student presents the background for the project (e.g., what is the domain area, what problem will the project solve). Student critically evaluates all aspects of the project, including study design, results, interpretations, and limitations. Student infers how the implementation and maintenance of the project will impact long-term topical domain goals.

4 - Exceeds expectations: Student presents the background for the project (e.g., what is the domain area, what problem will the project solve). Student critically evaluates all aspects of the project, including study design, results, interpretations, and limitations. Student infers how the implementation and maintenance of the project will impact long-term topical domain goals. Some connections to how the project will be implemented is missing. However, the evaluation is thoughtful and accurate.

3 – Meets Expectations: Student presents the background for the project, but it may be incomplete (e.g., the importance of the topic, the possible data sources). Student critically evaluates most aspects of the project, but may have inaccuracies in their thinking and how it solves a domain problem. May have missed important elements.

2 - Below expectations: Student tries to present the project, but is not able to articulate most of the project. Did not present any background for the project.

1 - Greatly below expectations: Student has not gone beyond identifying a topical domain. The presentation is lacking in most areas.

Measure 2. Students will write a research paper in the Applied Project (GCU 593) course using social science methods.

Performance Criterion 2. 90% or more of student papers will be evaluated at a level 3 or higher under the validated rubric under Outcome 2, Measure 1.

Rubric 1

Rubric for Creating a Problem Statement (for Outcome 1: Measure 1 and 2)

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components of a problem statement</td>
<td>Does not demonstrate an understanding of the main components of a problem statement</td>
<td>Somewhat demonstrates an understanding of the components of a problem statement</td>
<td>Clearly demonstrates an understanding of the components of a problem statement</td>
</tr>
<tr>
<td>Creating a problem statement</td>
<td>Does not incorporate the fundamental elements of a problem statement</td>
<td>Has some skillsets in building a problem statement, but some of the piece may not be well integrated or thought out</td>
<td>Clearly understand the elements of a problem statement and how they work in a research project</td>
</tr>
</tbody>
</table>
Topical domain
The student effectively understands the problem context, data needs, and solutions in a specific topical domain.

1. Does not know the role of the topical domain.
2. Understands the problem context and data needs but has limited understanding of the possible solution set.
3. Clearly understands the problem context, data needs, and the solution set in a particular topical domain.

Rubric II
Rubric for Creating a Problem Statement (for Outcome 2: Measure 2)

Components of a problem statement
The student clearly states the research problem.

1. Does not demonstrate a clear research problem statement.
2. Somewhat demonstrates an understanding of a research problem statement.
3. Clearly demonstrates an understanding of the components of a research statement.

Creating a problem statement
The student properly identifies an appropriate social science research method.

1. Does not incorporate the fundamental elements of social science research methods.
2. Has some skillsets in building elements of social science research methods, but some of the piece may not be well integrated or thought out.
3. Clearly understand the elements of social science research methods and how they work in a research project.

Statement Analysis
The student appropriately applies the method to data

1. Does not show evidence of structure or organization of problem context.
2. Understands the problem context and data needs but has limited understanding of the possible solution set.
3. Clearly understands the problem context, data needs and the solution set in a particular topical domain.

Statement Result
The student effectively summarizes the results of the analysis.

1. Does not summarize evidence with respect to problem statement.

F. Please state the satisfactory student academic progress standards and guidelines (including any time limits for completion).

In addition to the ASU Office of Graduate Education Standards, prospective students seeking the SSRM certificate must:

- have maintained a minimum GPA of 3.0 (on a 4.0 scale) in the cumulative/graduate/iPOS GPAs
- complete a minimum of one course per term and complete the certificate within the time limits set forth by Graduate Education for certificate programs.

Student progress will be monitored by the SSRM Curriculum Coordinator.
G. Will this proposed certificate program allow sharing of credit hours from another ASU degree program to be used as part of this certificate program? (Please note that a maximum of 12 graduate-level credit hours taken as a non-degree student at ASU, including as a part of a certificate program, may be used toward a future graduate degree at ASU).

9 graduate-level credit hours may be allowed as shared credit hours with another graduate degree program at ASU.

H. Below, please list all required and elective courses in the appropriate boxes (you may attach additional pages if necessary).

Please ensure that all new core course proposals have been submitted to the Provost’s office through the Curriculum ChangeMaker online course proposal submission system before this initiative is put on the University Graduate Council and CAPC agendas. Please note: A minimum of 2/3 of the courses required for a graduate certificate must be at the 500-level or above.

<table>
<thead>
<tr>
<th>Required Core Courses*</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will select one of the following three multivariate data analysis courses.</td>
<td>(Insert Section Sub-total)</td>
</tr>
<tr>
<td>(Prefix &amp; Number)</td>
<td>(Course Title)</td>
</tr>
<tr>
<td>SOC 508</td>
<td>Structural Equation Analysis for the Social Sciences</td>
</tr>
<tr>
<td>STP 533</td>
<td>Applied Multivariate Analysis</td>
</tr>
<tr>
<td>POS 604</td>
<td>Polimetrics II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective or Research Coursework</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students select four 3-credit hour courses from the menu of approved courses. Alternatives to these courses will be accepted pending an evaluation from the executive committee (See Appendix B)</td>
<td>(Insert Section Sub-total)</td>
</tr>
<tr>
<td>(Prefix &amp; Number)</td>
<td>(Course Title)</td>
</tr>
<tr>
<td>Various</td>
<td>See attached list of sample electives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Culminating Experience (if applicable)</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCU 593 Applied Project</td>
<td>3</td>
</tr>
<tr>
<td>Total required credit hours</td>
<td>18</td>
</tr>
</tbody>
</table>

* A core course cannot fulfill the requirements of an elective course and a core course at the same time. If a student takes SOC 508, STP 533, or POS 604 as a core course, they must select different coursework as electives.
5. PRIMARY FACULTY PARTICIPANTS - Please list all primary faculty participants for the proposed certificate, including home unit and title. You may attach additional pages if necessary.

<table>
<thead>
<tr>
<th>Name</th>
<th>Home Unit</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth Wentz</td>
<td>College of Liberal Arts, School of Geographical Sciences and Urban Planning</td>
<td>Professor and Dean</td>
</tr>
<tr>
<td>Richard Fabes</td>
<td>T. Denny Sanford School of Social and Family Dynamics</td>
<td>Professor and Director</td>
</tr>
<tr>
<td>David Schaefer</td>
<td>School of Human Evolution and Social Change</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Amber Wutich</td>
<td>School of Human Evolution and Social Change</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Alex Brewis Slade</td>
<td>School of Human Evolution and Social Change</td>
<td>Professor and Director</td>
</tr>
<tr>
<td>Monica Gaughan</td>
<td>School of Human Evolution and Social Change</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>Mary Margaret Fonow</td>
<td>School of Social Transformation</td>
<td>Professor and Director</td>
</tr>
<tr>
<td>Marco Janssen</td>
<td>School of Sustainability</td>
<td>Professor</td>
</tr>
</tbody>
</table>

6. REQUIRED SUPPORTING DOCUMENTS  
(Please label accordingly, i.e., Appendix or Attachment A, B, etc.)

Please include the following with your proposal:

A. Sample plans of study for students in the proposed program – See Appendix C
B. Statements of support from all deans and heads of impacted academic units – See Appendix D

7. APPROVALS - If the proposal submission involves multiple units, please include letters of support from those units.

The following section will be completed by Graduate Education following the recommendations of faculty governance bodies.

DEAN FOR GRADUATE EDUCATION

SIGNATURE: [Signature]

DATE: 9-25-2015

Please note: Proposals for new certificates also require the review and recommendation of approval from the University Graduate Council, Curriculum and Academic Programs Committee (CAPC), the Academic Senate, and the Office of the Provost before they can be put into operation.

The final approval notification will come from the Office of the Provost.
APPENDIX A

OPERATIONAL INFORMATION FOR GRADUATE CERTIFICATES

(This information is used to populate the Graduate Programs Search website.)

1. **Provide a brief** (catalog type—no more than 150 words) **program description.**

   The graduate certificate in Social Science Research Methods prepares students to acquire, manage, and analyze a broad range of data on human thought and human behavior. Data can be qualitative (e.g., text, images, sound) or quantitative (e.g., direct observation, surveys, geospatial). Data acquisition skills may include the downloading and managing of information from online sources or the primary collection of data in surveys or in direct observation. A key feature of this program is a focus on data analysis, so students and professionals will be able to analyze and interpret any data that they can collect. All students in this program will demonstrate skills in statistical analysis plus skills in a selection of methods related to their interests.

   Breakdown of requirements for the academic catalog:

   **Core (3)**
   - SOC 508 Structural Equation Analysis for the Social Sciences (3)
   - STP 533 Applied Multivariate Analysis (3)
   - POS 604 Polimetrics II (3)

   **Electives or Research (12)**
   - GCU 593 Applied Project (3)

   * Students will select one of the multivariate data analysis core courses for a total of three credit hours.

   ** Students select four 3-credit hour courses from a list of approved courses. Alternatives to these courses will be accepted pending an evaluation from the executive committee.

2. **Contact and Support Information:**

<table>
<thead>
<tr>
<th>Office Location (Building &amp; Room): Coor 5516</th>
<th>Campus mail code: 4602</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus Telephone Number: <strong>480-965-5005</strong></td>
<td>Program Director (Name and *ASU ID):</td>
</tr>
<tr>
<td></td>
<td>David Schaefer (schaef)</td>
</tr>
<tr>
<td>Program email address: <a href="mailto:issrweb@asu.edu">issrweb@asu.edu</a></td>
<td>Program Support Staff (Name and *ASU ID):</td>
</tr>
<tr>
<td></td>
<td>Sherry Thurston, sthurst2</td>
</tr>
<tr>
<td>Program website address: <a href="http://issrweb.asu.edu">issrweb.asu.edu</a></td>
<td>Admissions Contact (Name and *ASU ID):</td>
</tr>
<tr>
<td></td>
<td>Sherry Thurston, sthurst2</td>
</tr>
</tbody>
</table>

* ASU ID (e.g. SHJONES)
3. **Application and iPOS Recommendations:** List the Faculty and Staff that will input admission/POS recommendations to Gportal and indicate their approval for Admissions and/or POS:

<table>
<thead>
<tr>
<th>Name</th>
<th>ADMSN</th>
<th>POS</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Schaefer</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sherry Thurston</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

4. **Campus(es) where program will be offered:**

- [x] Downtown
- [x] Tempe
- [ ] Online (only)
- [ ] West
- [x] Polytechnic

5. **Keywords:** (List all keywords that could be used to search for this program. Keywords should be specific to the proposed program.)

Data Collection, Data Analysis, Research Methods, Social Science Research

6. **Area(s) of Interest:**

* To select desired box, place cursor on the left side of the box, right click mouse, select Properties, under Default Value select Checked, press OK and the desired box will be checked

A. Select one (1) primary area of interest from the list below that applies to this program.

- [ ] Architecture & Construction
- [ ] Arts
- [ ] Business
- [ ] Communications & Media
- [ ] Education & Teaching
- [ ] Engineering & Technology
- [ ] Entrepreneurship
- [ ] Health & Wellness
- [ ] Humanities
- [ ] Interdisciplinary Studies
- [ ] Law & Justice
- [ ] Mathematics
- [ ] Psychology
- [ ] STEM
- [ ] Science
- [x] Social and Behavioral Sciences
- [ ] Sustainability

B. Select one (1) secondary area of interest from the list below that applies to this program.

- [ ] Architecture & Construction
- [ ] Arts
- [ ] Business
- [ ] Communications & Media
- [ ] Education & Teaching
- [ ] Engineering & Technology
- [ ] Entrepreneurship
- [ ] Health & Wellness
- Humanities
- Interdisciplinary Studies
- Law & Justice
- Mathematics
- Psychology
- STEM
- Science
- Social and Behavioral Sciences
- Sustainability
APPENDIX B – SAMPLE LIST OF ELECTIVES

Students should verify the enrollment requirements listed in the system prior to class registration. All courses listed below are 3 credit hours and have been offered at ASU in the last two years.

School of Geographical Studies and Urban Planning Courses (GIS/PUP)
GCU 542 Geographical Analysis of Transportation
GCU 585 Geographic Research Design and Proposal Writing
GIS 501 GeoDesign in Practice
GIS 521 Geographic Information Science III
GIS 561 Optimization Fundamentals for Spatial Analysis
GIS 562 Location Analysis and Modeling
PUP 571 Socio-Economic Impact Analysis
PUP 573 Survey Research and Multivariate Statistics
PUP 579 Qualitative Research
PUP 582 Location Analysis and Modeling
PUP 642 Urban and Regional Economic Analysis

School of Human Evolution and Social Change
AML 540 Statistical Modeling for Sustainability
AML 541 Mathematical Concepts and Tools in Sustainability
AML 610 Topics in Applied Mathematics for the Life and Social Sciences
AML 612 Applied Mathematics for the Life and Social Sciences Modeling Seminar
ASB 568 Intrasite Research Strategies
ASM 465 Quantification and Analysis for Anthropologists
ASM 520 Agent-Based Modeling
ASM 568 GIS and Spatial Technologies in Anthropological Research

School of Social Transformation
JUS 500 Research Methods
JUS 509 Statistical Problems in Justice Research
JUS 521 Qualitative Data Analysis and Evaluation
JUS 630 Data Analysis for Justice Research
JUS 650 Advanced Qualitative Analysis

School of Social and Family Dynamics
FAS 505 Applied Regression Analysis
FAS 507 Categorical Data Analysis
FAS 508 Structural Equation Analysis for the Social Sciences
FAS 509 Event History Analysis
FAS 512 Secondary Data Analysis
SOC 505 Applied Regression Analysis
SOC 507 Categorical Data Analysis
SOC 508 Structural Equation Analysis for the Social Sciences
SOC 509 Event History Analysis
SOC 512 Secondary Data Analysis
SOC 533 Demographic Methods

School of Sustainability
SOS 541 Mathematical Concepts and Tools in Sustainability
SOS 542 Sustainability Indicators

School of Politics and Global Studies
POS 601 Advanced Experimental Research
POS 603 Polimetrics I
POS 604 Polimetrics II
POS 606 Qualitative and Textual Analysis

School of Mathematical and Statistical Sciences
STP 531 Applied Analysis of Variance
STP 533 Applied Multivariate Analysis
STP 535 Applied Sampling Methodology
Appendix C – Sample Plan of Study  
*All courses below are 3 credits*

<table>
<thead>
<tr>
<th>Fall 2016</th>
<th>Spring 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 508 – Structural Equation Analysis for the Social Sciences</td>
<td>GCU 585 – Geographic Research Design and Proposal Writing</td>
</tr>
<tr>
<td>Fall 2017</td>
<td>Spring 2018</td>
</tr>
<tr>
<td>PUP 571 – Socio-Economic Impact Analysis</td>
<td>PUP 579 – Qualitative Research</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>Spring 2019</td>
</tr>
<tr>
<td>PUP 582 – Location Analysis and Modeling</td>
<td>GCU 593 – Applied Project</td>
</tr>
</tbody>
</table>
Attached is our proposal to establish a graduate certificate in Social Science Research Methods.

Thank you.

Paul LePore
March 23, 2015

TO: Elizabeth A. Wentz
FROM: Alexandra Brewis Slade
RE: Graduate Certificate in Social Science Methods

Dear Dr. Wentz,

We have reviewed your proposal for the Graduate Certificate in Social Science Methods. The School of Human Evolution and Social Change approves and fully supports the proposal as well as the elective course options you have listed from our school.

We look forward to collaborating on this initiative. Please let me know if you need any materials or more commentary from us.

Yours sincerely,

Alexandra Brewis Slade, PhD.
Director and President’s Professor
April 3, 15

The School of Politics and Global Studies supports the creation of a Graduate Certificate Program in Social Science Research Methods through the School of Geographical Studies and Urban Planning (SGSUP). We welcome the opportunity to contribute courses such as POS 604 and others as they support the goals of the program.

Sincerely,

[Signature]

Richard Herrera
Associate Director
School of Politics and Global Studies
Audrey Walters

From: Christopher Boone
Sent: Friday, June 13, 2013 3:25 PM
To: Elizabeth Wentz
Cc: F. Russell Bernard; David Schaefer; Audrey Walters; Caroline Harrison; Candice Carr; Kelman
Subject: Re: Certificate Updates from the Office of Graduate Education

Libby,

I am very happy to provide this message of support for the proposed Graduate Certificate in Social Science Research Methods, including the inclusion of SOS 541 and 542 in the list of electives. I expect it will be very popular with our graduate students in the School of Sustainability.

Note that Marco Janssen is now a Full Professor in the School of Sustainability. Also, Manfred’s tenure home is not in SOS.

Best,
Chris

Christopher Boone
Dean, School of Sustainability
Senior Sustainability Scientist, Julie Ann Wrigley Global Institute of Sustainability

On Jun 19, 2015, at 9:43 AM, Elizabeth Wentz <WENTZ@asu.edu> wrote:

<SISUP-SSR Grad Certificate in Research Methods updated 061815.doc>
21 March 2015
Elizabeth A. Wentz,
Professor and Director
School of Geographical Sciences and Urban Planning
Arizona State University
Tempe, AZ 85287-5302

Dear Director Wentz,

I am writing to offer my support for the Graduate Certificate in Research Methods (GCRM), which the School of Geographical Sciences and Urban Planning is proposing, in conjunction with the Institute of Social Sciences Research. I am particularly moved by the fact that the GCRM will provide our graduates with marketable skills and place them in unique positions to teach research methods and research design. The students in the School of Social Transformation will benefit from the GCRM, and I believe many of them will choose to pursue it. I applaud your efforts.

Warmest Regards,

Bryan McKinley Jones Brayboy, Ph.D.
Special Advisor to President Crow on American Indian Affairs
Acting Director, School of Social Transformation
President’s Professor
Borderlands Professor of Indigenous Education and Justice
Director, Center for Indian Education
Arizona State University
P.O. Box 876403, Tempe, AZ 85287-6403
480.965.1997
School of Mathematical and Statistical Sciences – Support Letter

From: Audrey Walters
To: Sharyn Thurston
Subject: FW: Request for Support - Graduate Certificate in Social Science Research Methods
Date: Thursday, April 23, 2015 3:14:11 PM

From: Albert Boggess [mailto:ahoggess@asu.edu]
Sent: Wednesday, April 15, 2015 7:08 AM
To: Elizabeth Wentz
Cc: Al Boggess; Audrey Walters; H. Russell Bernard; John Stuffle
Subject: Re: Request for Support - Graduate Certificate in Social Science Research Methods

Libby,
I enjoyed meeting with you and Russ yesterday about your proposed certificate in social science research.
I support your certificate proposal and will allow your students to enroll in STP 533 provided that they have sufficient background. We will also work with you to see if we can tailor a section to meet the needs of your students.

Let me know if this email suffices or if a more formal memo is needed.

Al

On Apr 2, 2015, at 4:55 PM, Elizabeth Wentz <WENTZ@asu.edu> wrote:

> Dear Al,
> 
> Thank you for considering our request for a letter of support for the graduate certificate in social science research methods. If you want to speak to me about the potential impact in your unit, I’d be happy to speak with you about this. The proposal is attached again here for your convenience.
> 
> Our deadline is approaching quickly, so could you please let us know soon whether you’ll be able to support it
> 
> Thank you.
> 
> Libby
> 
> From: Audrey Walters
> Sent: Wednesday, April 01, 2015 3:26 PM
> To: Al Boggess
> Cc: Kyle Rader
> Subject: Request for Support - Graduate Certificate in Social Science Research Methods
> 
> Dear Dr. Boggess,
> 
> I spoke with your assistant, Kyle Rader, earlier today regarding a request for support.
> 
> Kase Bernard, Director of the Institute of Social Science Research (ISSR), Elizabeth Wentz, Director of the School of Geographical Sciences and Urban Planning (SGSUP), and Alex Brew: Slade, Director of the School of Human Evolution and Social Change (SHESC) are developing proposals for both Undergraduate and Graduate Certificates in Social Science Research Methods. To develop the program, they have gone through the curricula across ASU campuses to learn about the various courses that might be appropriate for the certificates. The goal is to
Establishing Graduate Certificates

involves colleagues at ASU across disciplines who are teaching applicable courses on research methods. The goal is to offer certificates through a menu of courses, at both the undergraduate and graduate levels. Our target launch date is Fall 2016 and we are submitting our graduate application to CAPC this April.

I have attached the Graduate Certificate Application for your review. There are several applicable STP courses, one of which – STP 533 - Applied Multivariate Analysis – fits into our graduate certificate proposal as a choice for one (1) course requirement. We are requesting permission to include those courses as a part of the program’s menu of courses.

We are also soliciting a letter of support that will be submitted with the application.

Dr. Bernard or Dr. Wentz will be happy to meet with you in person and discuss the certificate program’s impact as well as ISSR’s commitment to support faculty across ASU campuses.

If I can answer any immediate questions, please do not hesitate to contact me.

Thank you for your consideration.

Best regards,

Audrey

__________________________________________________________________

Audrey J. Walters
Business Operations Specialist
Asst to Director, H. Russell Bernard
Institute for Social Science Research
Arizona State University
PO Box 874602 | Tempe | AZ 85287-4602
P: 480.965.0005 | F: 480.965.5077
audrey.walters@asu.edu

<SGSUP-ISSR Grad Certificate in Research Methods updates 033115.doc>
March 24, 2015

To Whom It May Concern:

This letter serves as a memo of support for the proposed Master’s graduate certificate program in social science methods. In an increasingly complex and data-driven world, students need more opportunities to gain skills in research methods and this certificate will help meet that need.

The School of Social and Family Dynamics already offers classes that can support the program and we will cooperate when/where possible. We do not anticipate any adverse impact of the program. As such, we offer our strong support.

If you need any further information, feel free to contact me.

Sincerely,

Richard Fabes, PhD
John O. Whiteman Dean’s Distinguished Professor
Director, T. Denny Sanford School of Social and Family Dynamics