GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:
Copy and paste current course information from Class Search/Course Catalog.

<table>
<thead>
<tr>
<th>College/School</th>
<th>College of Liberal Arts and Sciences</th>
<th>Department</th>
<th>School of Human Evolution and Social Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix ASB</td>
<td>Number 394</td>
<td>Title</td>
<td>Statistics for Social Scientists Units:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Is this a cross-listed course? No  If yes, please identify course(s)

Is this a shared course? No  If so, list all academic units offering this course

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? No

If yes, all topics under this permanent numbered course must be taught in a manner that meets the criteria 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.

Course description:

Requested designation: Mathematical Studies-CS  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 2016 Effective Date: October 1, 2015  For Spring 2017 Effective Date: March 10, 2016

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)
- 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(s) 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  Sara Marsteller  E-mail  smarstel@asu.edu  Phone  480-727-6043

Department Chair/Director approval: (Required)
Chair/Director name (Typed): Kaye Reed  Date: 1/8/18
Chair/Director (Signature): Kaye E. Reed  1/10/18

Rev. 4/2015
Arizona State University Criteria Checklist for

MATHEMATICAL STUDIES [CS]

Rationale and Objectives

The Mathematical Studies requirement is intended to ensure that students have skill in basic mathematics, can use mathematical analysis in their chosen fields, and can understand how computers can make mathematical analysis more powerful and efficient. The Mathematical Studies requirement is completed by satisfying both the Mathematics [MA] requirement and the Computer/Statistics/Quantitative Applications [CS] requirement explained below.

The Mathematics [MA] requirement, which ensures the acquisition of essential skill in basic mathematics, requires the student to complete a course in College Mathematics, College Algebra, or Pre-calculus; or demonstrate a higher level of skill by completing a mathematics course for which a course in the above three categories is a prerequisite.

The Computer/Statistics/Quantitative Applications [CS] requirement, which ensures skill in real world problem solving and analysis, requires the student to complete a course that uses some combination of computers, statistics, and/or mathematics.* Computer usage is encouraged but not required in statistics and quantitative applications courses. At a minimum, such courses should include multiple demonstrations of how computers can be used to perform the analyses more efficiently.

*CS does not stand for computer science in this context; the “S” stands for statistics. Courses in computer science must meet the criteria stated for CS courses.

Revised April 2014
Proposer: Please complete the following section and attach appropriate documentation.

**ASU--[CS] CRITERIA**

A COMPUTER/STATISTICS/QUANTITATIVE APPLICATIONS [CS] COURSE MUST SATISFY ONE OF THE FOLLOWING CRITERIA: 1, 2, OR 3

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

1. **Computer applications**: courses must satisfy both a and b:

   a. Course involves the use of computer programming languages or software programs for quantitative analysis, algorithmic design, modeling, simulation, animation, or statistics.

   b. Course requires students to analyze and implement procedures that are applicable to at least one of the following problem domains (check those applicable):

      i. Spreadsheet analysis, systems analysis and design, and decision support systems.

      ii. Graphic/artistic design using computers.

      iii. Music design using computer software.

      iv. Modeling, making extensive use of computer simulation.

      v. Statistics studies stressing the use of computer software.

      vi. Algorithmic design and computational thinking.

*The computer applications requirement cannot be satisfied by a course, the content of which is restricted primarily to word processing or report preparation skills, the study of the social impact of computers, or methodologies to select software packages for specific applications. Courses that emphasize the use of a computer software package are acceptable only if students are required to understand, at an appropriate level, the theoretical principles embodied in the operation of the software and are required to construct, test, and implement procedures that use the software to accomplish tasks in the applicable problem domains. Courses that involve the learning of a computer programming language are acceptable only if they also include a substantial introduction to applications to one of the listed problem domains.*
<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>2. Statistical applications</strong>: courses must satisfy a, b, and c.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>a.</strong> Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Pre-calculus, or a course already approved as satisfying the MA requirement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>b.</strong> The course must be focused principally on developing knowledge in statistical inference and include coverage of all of the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Design of a statistical study.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Summarization and interpretation of data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Methods of sampling.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv. Standard probability models.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>v. Statistical estimation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>vi. Hypothesis testing.</td>
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<tr>
<td></td>
<td></td>
<td>vii. Regression or correlation analysis.</td>
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<tr>
<td></td>
<td></td>
<td><strong>c.</strong> The course must include multiple demonstrations of how computers can be used to perform statistical analysis more efficiently, if use of computers to carry out the analysis is not required.</td>
</tr>
</tbody>
</table>
3. Quantitative applications: courses must satisfy a, b, and c:

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Identify Documentation Submitted</th>
</tr>
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<tbody>
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</tbody>
</table>

a. Course has a minimum mathematical prerequisite of College Mathematics, College Algebra, or Pre-calculus, or a course already approved as satisfying the MA requirement.

b. The course must be focused principally on the use of mathematical models in quantitative analysis and decision making. Examples of such models are:

   i. Linear programming.
   ii. Goal programming.
   iii. Integer programming.
   iv. Inventory models,
   v. Decision theory.
   vi. Simulation and Monte Carlo methods.
   vii. Other (explanation must be attached).

c. The course must include multiple demonstrations of how computers can be used to perform the above applications more efficiently, if use of computers is not required by students.
<table>
<thead>
<tr>
<th>Course Prefix</th>
<th>Number</th>
<th>Title</th>
<th>General Studies Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASB</td>
<td>394</td>
<td>Statistics for Social Scientists</td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Criteria (from checksheet)</th>
<th>How course meets spirit (contextualize specific examples in next column)</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Course involves the use of software programs for quantitative analysis and statistics</td>
<td>The course teaches students how to use the software program Microsoft Excel to conduct statistical analysis of quantitative data used in social science research. (textbook and yellow highlights in syllabus)</td>
</tr>
<tr>
<td>2b.i</td>
<td>Course requires students to analyze and implement procedures in spreadsheet analysis</td>
<td>Students gain an understanding of statistical analyses used in the social sciences by learning how to apply and interpret statistical techniques using data spreadsheets in Microsoft Excel. (textbook and blue highlights in syllabus)</td>
</tr>
<tr>
<td>2b.v</td>
<td>Course requires students to analyze and implement procedures in statistics stressing the use of computer software, specifically Microsoft Excel</td>
<td>Students learn how to use statistical and database software program Microsoft Excel to conduct statistical analyses using examples drawn from the social sciences. (textbook and green highlights in syllabus)</td>
</tr>
</tbody>
</table>
ASB 394 Statistics for Social Scientists - Course Description

In this course, we cover techniques used to analyze quantitative data used in the social sciences. Emphasis will be placed on the basic concepts of quantitative analysis including models used to explore causality, an introduction to multivariate analysis, and the use of excel to perform statistical techniques. The course will focus on understanding, applying, and interpreting statistical techniques, rather on the derivations of methods or performance of calculations. The course also will include a brief introduction to qualitative analysis and software used to analyze qualitative information.
Note: this syllabus is not a contract. It is subject to further change or revision, to best realize the educational goals of the course. Revisions will be announced in class or in course materials online with appropriate prior notice.

Statistics for Social Scientists
ASB 394
Master Syllabus

Course Meetings: Online (3 credit hours)

Course Description:
In this course, we cover techniques used to analyze quantiative data used in the social sciences. Emphasis will be placed on the basic concepts of quantitative analysis including models used to explore causality, an introduction to multivariate analysis, and the use of excel to perform statistical techniques. The course will focus on understanding, applying, and interpreting statistical techniques, rather on the derivations of methods or performance of calculations. The course also will include a brief introduction to qualitative analysis and software used to analyze qualitative information.

We will use examples from across the social sciences, but with an emphasis on global health, anthropology, and environmental social science.

Course Goals:
1) To develop the student’s ability to conduct statistical analysis of quantitative data;
2) To increase the students’ understanding of the appropriate use of analytic techniques in both descriptive and inferential methods, including hypothesis testing;
3) To improve the student’s ability to interpret statistical results involving univariate and multivariate statistical analysis;
4) To develop the student’s ability to use statistical and database software such as Excel;
5) To improve student’s ability to consume statistical information and analysis as required to conduct social scientific analysis (and interpret analyses in academic literature and mainstream media).

Learning Outcomes:
By the end of this course, each student will have demonstrated that they are able to:

• Explain basic statistical findings from media and journal articles
• Pick the appropriate statistics for a study
• Utilize excel to conduct statistical analyses


Course Format:
This is an online course. Students will be reading a textbook, outside readings from academic and media sources, watching videos, and watching lectures. Students will be completing lab assignments, quizzes, and posting in discussion boards.

Coursework
Final grades for the course will be assigned on basis of the following:

• Quizzes 35 pts or 35 %, based on 7module quizzes
• Labs 49 pts or 49% based on 7 module labs
• Discussion Board Posts 16% based on 7 module and introduction discussion posts
For your own protection, you should keep a copy of everything you hand in, and you should keep your graded assignments at least until grades are finalized at the end of the semester, and in the event you wish to contest any grades.

**Final Grades:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/ A+</td>
<td>90.5-92.4/ 92.5-97.4/ 97.5-100</td>
<td>Excellent</td>
</tr>
<tr>
<td>B/ B+</td>
<td>79.5-82.4/ 82.5-87.4/ 87.5-89.4</td>
<td>Good</td>
</tr>
<tr>
<td>C/ C+</td>
<td>69.5-77.4/ 77.5-79.4</td>
<td>Average</td>
</tr>
<tr>
<td>D</td>
<td>59.5-69.4</td>
<td>Passing</td>
</tr>
<tr>
<td>E</td>
<td>&lt;60</td>
<td>Failure</td>
</tr>
<tr>
<td>XE</td>
<td></td>
<td>Failure due to Academic Dishonesty</td>
</tr>
</tbody>
</table>

**Extra Credit**

There will be extra credit opportunities assigned for this course through extra quiz questions. Additionally there will be a few extra credit opportunities within some of the modules. These are due within the module assigned. No additional extra credit opportunities will be made available.

**Incompletes**

A mark of "I" (incomplete) is given by the instructor when you have completed most of the course and are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. You are required to arrange with the instructor for the completion of the course requirements. The arrangement must be recorded on the Request for Grade of Incomplete form (http://students.asu.edu/forms/incomplete-grade-request).

**Late Assignments**

Unexcused late assignments will not be accepted. Excuses for an assignment must be made an approved in advance of the due date of the assignment. Requests for excuses must be written, either on paper or email, and approval must be obtained, either by an email reply or by having the paper excuse signed. In order to get credit, with the late assignment you must turn in a copy of the email approval or signed written excuse.

**Grade Appeals**

ASU has formal and informal channels to appeal a grade. If you wish to appeal any grading decisions, please see http://catalog.asu.edu/appeal.

**Course Policies**

This is an online course; please be courteous to your classmates and the instructor. All discussion posts should be written in a formal academic style.

**Student Standards**

Students are required to read and act in accordance with university and Arizona Board of Regents policies, including:

The ABOR Code of Conduct: Arizona Board of Regents Policies 5-301 through 5-308: https://students.asu.edu/srr

**Policy against threatening behavior**

All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary,
conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

If you have any questions, please refer to ACD-304-10 Course Syllabus or contact P.F. Lengel or Jenny Smith in the CLAS Dean’s Office at (480) 965-6506.

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 http://provost.asu.edu/academicintegrity.

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others’ work (including information posted on the internet), and failing to turn in your own work for group projects. Please be aware that if you follow an argument closely, even if it is not directly quoted, you must provide a citation to the publication, including the author, date and page number. If you directly quote a source, you must use quotation marks and provide the same sort of citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the TA or the instructor in advance of turning in an assignment. Please be aware that the work of all students submitted electronically can be scanned using SafeAssignment, which compares them against everything posted on the internet, online article/paper databases, newspapers and magazines, and papers submitted by other students (including yourself if submitted for a previous class).

Note: Turning in an assignment (all or in part) that you completed for a previous class is considered self-plagiarism and falls under these guidelines. Any infractions of self-plagiarism are subject to the same penalties as copying someone else's work without proper citations. Students who have taken this class previously and would like to use the work from previous assignments should contact the instructor for permission to do so.

Prohibition of Commercial Note Taking Services

In accordance with ACD 304-06 Commercial Note Taking Services, 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.

Student Support and Disability Accommodations

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, 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 their campus DRC at: http://www.asu.edu/studentaffairs/ed/drc/
If you are a student in need of special arrangements for we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

**Drop and Add Dates/Withdrawals**
Please refer to the academic calendar on the deadlines to drop/withdraw from this course. Consult with your advisor and notify your instructor if you are going to drop/withdraw this course. If you are considering a withdrawal, review the following ASU policies: Withdrawal from Classes, Medical/Compassionate Withdrawal and Drop/Add and Withdraw.

**Email Communications**
All email communication for this class will be done through your ASU email account. Your email communications should be professional and succinct. You should be in the habit of checking your ASU email regularly as you will not only receive important information about your class(es), but other important university updates and information. You are solely responsible for reading and responding if necessary to any information communicated via email. For help with your email contact the help desk.

**Campus Resources**
As an ASU student you have access to many resources on campus. This includes tutoring, academic success coaching, counseling services, financial aid, disability resources, career and internship help and many opportunities to get involved in student clubs and organizations.

- Tutoring: [http://studentsuccess.asu.edu/frontpage](http://studentsuccess.asu.edu/frontpage)
- Counseling Services: [http://students.asu.edu/counseling](http://students.asu.edu/counseling)
- Financial Aid: [http://students.asu.edu/financialaid](http://students.asu.edu/financialaid)
- Career Services: [http://students.asu.edu/career](http://students.asu.edu/career)

For more information about the School of Human Evolution and Social Change, including our degree programs, research opportunities and advising information, please go to: [http://shesc.asu.edu/undergraduate/undergraduate-studies](http://shesc.asu.edu/undergraduate/undergraduate-studies). Our advisors are always willing to discuss career and guidance options with you.

**Notes on Letters of Recommendation:**
Please be aware that I receive many requests from students to write letters of recommendation and therefore have set down these guidelines. Students should only request a letter of recommendation if s/he meets the following minimum criteria.

- Has taken more than one in-person (upper-division) class with me if it is lecture, or have taken one intensive smaller class such as a seminar, lab, or practicum class with me (note: I do not write letters for students who take online classes with me)
- Received A or A+ in a 300 or 400 level course(s) taken me
- Has spoken with me directly outside of class about career/academic goals

Note that if you meet these minimums it doesn’t mean that I will agree to write you a letter. When asking for a letter of recommendation you MUST allow more than two weeks notice and provide me with the following. Everything listed here must be in one email.

- Unofficial Transcript
- Resume or CV
• Any application materials that are pertinent (e.g., personal statement/statement of purpose; answers to application questions; scholarship/job description; a paragraph stating why you are applying for X if you don’t have a personal statement/answers to application questions; etc.).
• The information of to whom and where the letter is to be sent (e.g. email address or if it needs to be sent via the US Postal Service you must provide me with a stamped and addressed envelope).
• Clearly stated deadline of when the letter is due.

If I agree to write a letter of recommendation I will only be able to summarize your academic performance in my class(es) and will not be able to speak to any factors that have not been accessed in class. Lastly, if I agree to write you a letter, you agree to the following.
• You will let me know the outcome. This is important to me as I will want to know what is happening with you and to keep track of any positive outcomes. Also, this means a lot to me (and anyone else you request letters from).
• You agree to check with me before putting my name down on any subsequent applications (don’t just assume you can keep putting my name down if I have only agreed to write one letter for you).

Schedule of Readings and Assignments
In each of the modules there are quizzes, labs, and discussion board assignments. These are due at the end of the module by 11:59 pm.

<table>
<thead>
<tr>
<th>Modules</th>
<th>Due Date</th>
<th>Discussion Posts</th>
<th>Labs</th>
<th>Quiz</th>
<th>Points</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>8/25/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
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<tr>
<td>Module 1</td>
<td>8/25/17</td>
<td>2</td>
<td>7</td>
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</tr>
<tr>
<td>Module 2</td>
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<td>2</td>
<td>7</td>
<td>5</td>
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<tr>
<td>Module 3</td>
<td>9/8/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>14</td>
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<tr>
<td>Module 4</td>
<td>9/15/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>14</td>
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<tr>
<td>Module 5</td>
<td>9/22/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Module 6</td>
<td>9/29/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>14</td>
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<tr>
<td>Module 7</td>
<td>10/6/17</td>
<td>2</td>
<td>7</td>
<td>5</td>
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