## GENERAL STUDIES COURSE PROPOSAL COVER FORM

## Course information:

Copy and paste current course information from Class Search/Course Catalog.
College/School New College of Interdisciplinary Arts and Science: Department/School Math and Natural Sciences

| Prefix: | $\begin{aligned} & \mathbf{A C} \\ & \mathbf{O} \end{aligned}$ | Number: | 194 | Title: | Cyber Security Concepts \& Analysis Tools | Units: | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Course description:
Cyber Security Concepts \& Analysis Tools reviews the basic principles of Information System Security, the underlying security frameworks, legal and ethical issues, planning and implementation of security. This course satisfies the computational competence requirement through development of spreadsheet skills which will be applied to the analysis of key formulas commonly used in developing and managing Security of Information Systems.
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.

Chair/Director Initials

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 2019 Effective Date: October 5, 2018
For Spring 2020 Effective Date: March 8, 2019

## 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)
Natural Sciences core courses (SQ/SG)
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 being requested
Course catalog description
$\boxtimes$ 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 Stephen Wirkus
Department Chair/Director approval: (Required)
Chair/Director name (Typed): Stephen Wirkus $\quad$ Date: 3/27/2019

## 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.

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

*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.

Mathematics [CS]
Page 3

| YES | NO |  | Identify <br> Documentation Submitted |
| :---: | :---: | :---: | :---: |
|  |  | 2. Statistical applications: courses must satisfy $\mathbf{a}, \mathbf{b}$, and $\mathbf{c}$. |  |
|  |  | 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 developing knowledge in statistical inference and include coverage of all of the following: |  |
|  |  | i. Design of a statistical study. |  |
|  |  | ii. Summarization and interpretation of data. |  |
|  |  | iii. Methods of sampling. |  |
|  |  | iv. Standard probability models. |  |
|  |  | v. Statistical estimation |  |
|  |  | vi. Hypothesis testing. |  |
|  |  | vii. Regression or correlation analysis. |  |
| $\square$ | $\square$ | c. 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. |  |

Mathematics [CS]
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| YES | NO |  | Identify <br> Documentation Submitted |
| :---: | :---: | :---: | :---: |
|  |  | 3. Quantitative applications: courses must satisfy $\mathbf{a}, \mathbf{b}$, and $\mathbf{c}$ : |  |
|  |  | 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). |  |
| $\square$ |  | 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. |  |


| Course Prefix | Number | Title | General Studies <br> Designation |
| :--- | :--- | :--- | :--- |
|  |  |  |  |

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.

| Criteria (from <br> checksheet) | How course meets spirit <br> (contextualize specific <br> examples in next column) | Please provide detailed evidence of how course <br> meets criteria (i.e., where in syllabus) |
| :--- | :--- | :--- |
| Criteria 1. | a. Use of computer program for <br> quantitative analysis. <br> b.i. Use of Excel for <br> spreadsheet analysis | Lessons and assignments for the Excel component of <br> the course are found in the Course Outline in the <br> Spreadsheets, Visusalization and Analysis readings <br> and assignments. <br> Additionally, the Excel Analysis Project tasks <br> students with using the spreadsheet analysis <br> techniques learned in the course to provide an <br> Analysis solution of an industry based problem. |
|  |  |  |
|  |  |  |



## ACO194: Cyber Security Concepts \& Analysis Tools

## Course and Faculty Information

## Course Description

Cyber Security Concepts \& Analysis Tools reviews the basic principles of Information System Security, the underlying security frameworks, legal and ethical issues, planning and implementation of security. This course satisfies the computational competence requirement through development of spreadsheet skills which will be applied to the analysis of key formulas commonly used in developing and managing Security of Information Systems.

Credits - 3

## Prerequisites

- None


## Faculty

Name: Dr. Steve Clayden, PhD, CISSP
Office: Online
Phone: 480-510-7673 (Cell)
Email address: steven.clayden@asu.edu
Office hours: Online format - questions accepted by e-mail and if needed we can set up a voice conference or other media-based session.

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers (Chrome, Mozilla Firefox preferred)
- Reliable broadband internet connection (DSL or cable)


## Required Software:

- MS Office 2016. (Download Microsoft Office 2016 or 365)

Review the Information in this linked pdf file to download the correct version of Office: How to get Office 365 - Cost is Free for all currently-enrolled ASU students)

Call UTO IT Help Desk at 855-278-5080 to walk you through the installation process if desired and let them know that you are trying to install Microsoft Office.

## Required Text and Materials:

There is NO used or Amazon version of these materials - these materials include a single use access code.

At the ASU Bookstore: (Only source for the Hard copy of the textbook)
Hard copy textbook with access to the Course materials (Cyber Security Concepts \& Excel 2016 Analysis Tools (w/MindTap Access) (ASU CUSTOM text).

## OR - (DO NOT purchase BOTH)

The e-text version of the book with the course materials (LMS Integrated SAM 365 \& 2016 Assessments, Training, \& Projects (Access Code)
The publisher, Cengage, also offers a subscription service called Cengage Unlimited that give access to all their textbooks for a fee based on the amount of time you wish to have access to the books.
This option is less expensive and allows printing of selected pages or the entire text.
Should you need additional guidance, please visit www.cengage.com/start-strong (Links to an external site).

Financial Aid students can purchase Cengage Unlimited from the Bookstore.

| Course Outline Topic: | Text | Comments |
| :---: | :---: | :---: |
| Intro to Information Security | Chap 1 Principles of IS |  |
| The Need for Security | Chap 2 Principles of IS |  |
| Spreadsheets | Excel 2016 Modules 1-3 |  |
| Legal, Ethical \& Profess. | Chap 3 Principles of IS | Students will be given <br> weekly homework <br> assignments to <br> complete in SAM and <br> Canvas |
| Visualization | Excel 2016 Module 4 |  |
| Planning for Security | Chap 4 Principles of IS |  |
| Analysis | Excel 2016 Module 5 |  |
| Implementing IS | Chap 10 Principles of IS |  |
| Excel Analysis Project | Canvas Assignment |  |

## Learning Outcomes

At the completion of this course, students will be able to:

- Formulate the application of the ordering of data and fundamental aggregation operations, such as sum, count, average, maximum, minimum
- Understand how decisions can be incorporated in the analysis of data
- Use tools provided in spreadsheets to visualize data in line graphs, bar charts, and clustered bar charts
- Analyze a problem description and formulate a conceptual design that captures the constraints of the analysis
- Apply mapping techniques of conceptual designs to spreadsheets/tables
- Understand the concepts of and need for Information Security
- Understand the ethical and legal issues involving Information Security
- Plan for Information Security in an organization
- Understand implementation issues and requirements of Information Security


## Course Topics, Schedule \& Grading

Activities used for instruction and assessment of learning include: textbook and supplemental readings; individual activities/assignments; and case scenarios.

| ASSESSMENT: All assessed components are individual assignments unless explicitly |
| :--- | :---: |
| noted on the assignment |$|$| Assessed Component | $5 \%$ |
| :--- | :---: |
| Getting Started Quiz and ACO Course Verification | $15 \%$ |
| Projects / Cases | $5 \%$ |
| Trainings / Reviews | $20 \%$ |
| Exams | $10 \%$ |
| Design Solution | $20 \%$ |
| Midterm Exam | $25 \%$ |
| Comprehensive Final Exam | $100 \%$ |
| Total |  |

## Grading

| Grade | Percentage | Grade | Percentage | Grade | Percentage |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A+ | $98-100 \%$ | A |  | A- |  |
| B+ |  | $92<98 \%$ |  | $90<92 \%$ |  |
| C+ | $88<90 \%$ |  | $82<88 \%$ |  | $80<82 \%$ |
| E | $78<80 \%$ |  | $70<78 \%$ |  | $60<70 \%$ |
| $1<60 \%$ | EN- | 0 |  |  |  |

Instructor's Absence Policy: This is an Online course and as such, requires weekly participation by actively engaging in the course. Active engagement is defined as on time submission of weekly assignments.

## Discussion Post Rules:

- Be respectful of others when posting - use good etiquette and appropriate language.
- You may not upload any content to the course discussion boards (or other course assignments) material that is not your original work, unless you first comply with all applicable copyright laws. Any uncited and copied materials will be deleted on the grounds of suspected copyright infringement.


## Course/Instructor Evaluation

The course/instructor evaluation for this course will be conducted online 7-10 days before the last official day of classes of each semester or summer session. Your response(s) to the course/instructor are anonymous and will not be returned to your instructor until after grades have been submitted. The use of a course/instructor evaluation is an important process that allows our college to (1) help faculty improve their instruction, (2) help administrators evaluate instructional quality, (3) ensure high standards of teaching, and (4) ultimately improve instruction and student learning over time. Completion of the evaluation is not required for you to pass this class and will not affect your grade, but your cooperation and participation in this process is critical. About two weeks before the class finishes, watch for an e-mail with "NCIAS Course/Instructor Evaluation" in the subject heading. The email will be sent to your official ASU e-mail address.

## Withdrawals: It is the student's responsibility to be aware of their registration status.

Withdrawals pertaining to students enrolled in MAT 117 or MAT 142: please note that instructors may choose to drop a student from this course if the student appears on the grade roster and does not attend class the first week of the semester; however, students should be aware that non-attendance may not automatically result in their being dropped from the course. Therefore, if a student does not attend class during the first week or for any extended period of time during the semester, they should not presume that they are no longer registered.

Withdrawals pertaining to students enrolled in all other courses: Students should be aware that non-attendance will NOT automatically result in their being dropped from the course. Therefore, if a student does not attend class during the first week or for any extended period of time during the semester, they should not presume that they are no longer registered.

## It is the student's responsibility to be aware of their registration status

## Please note the following dates:

| Session Date \& Deadlines | Session A <br> 01/07/2019- <br> 02/26/2019 | Session B <br> 03/11/2019- <br> 04/26/2019 | Session C <br> 01/07/2019 - 04/26/2019 <br> (Final Exams 04/29/2019 - <br> 05/04/2019) |
| :--- | :---: | :---: | :---: |
| Classes Begin | January 7, 2019 | March 11, 2019 | January 7, 2019 |

Any withdrawal transaction must be completed by the deadline date in accordance to the appropriate session at the registrar's office. If not, you will still be officially enrolled and you will receive a grade based on your work completed.
*As part of a complete session withdrawal a student must withdraw from all classes in a session. Beginning the first day of classes, undergraduate students are required to work with a Student Retention Coordinator to facilitate the withdrawal process. Please refer to http://students.asu.edu/StudentRetention

For additional information about ASU's withdrawal policy and the possible consequences of withdrawing from a class, contact Registration Services or your academic counselor.

## Students are responsible for their registration status!

The Grade of Incomplete: A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents a student who is doing acceptable work from completing a small percentage of the course requirements at the end of the semester. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed. A grade of incomplete will NOT be awarded unless there is documented evidence of extreme personal or immediate family hardship. Changes in work hours, child-care emergencies, or other similar personal problems will not be approved as reasons for awarding incompletes. The Director of the School of Mathematical and Natural Sciences must approve all incomplete grade requests.

Assessments: Please be aware that student scores on exams or other graded work may be used for assessment of program goals of degrees offered by the School of Mathematical and Natural Sciences.

Reasonable Accommodations for Students with Disabilities: The Disability Resource Center (DRC) provides information and services to students with any documented disability who are attending ASU West. Individualized program strategies and recommendations are available for each student as well as current information regarding community resources. Students also may have access to specialized equipment and supportive services and should contact the instructor for accommodations that are necessary for course completion.

## Academic Integrity and Code of Conduct:

As defined in the ASU Student Academic Integrity Policy: http://provost.asu.edu/academicintegrity.
Each student has an obligation to act with honesty and integrity, and to respect the rights of others in carrying out all academic assignments. A student may be found to have violated this obligation and to have engaged in academic dishonesty if during or in connection with any academic evaluation, he or she:
$>$ Engages in any form of academic deceit;
> Refers to materials or sources or employs devices (e.g., audio recorders, crib sheets, calculators, solution manuals, or commercial research services) not authorized by the instructor for use during the academic evaluation;
> Possesses, buys, sells, obtains, or uses, without appropriate authorization, a copy of any materials intended to be used for academic evaluation in advance of its administration;
> Acts as a substitute for another person in any academic evaluation;
> Uses a substitute in any academic evaluation;
> Depends on the aid of others to the extent that the work is not representative of the student's abilities, knowing or having good reason to believe that this aid is not authorized by the instructor;
> Provides inappropriate aid to another person, knowing or having good reason to believe the aid is not authorized by the instructor;
$>$ Engages in plagiarism;
P Permits his or her work to be submitted by another person without the instructor's authorization; or
> Attempts to influence or change any academic evaluation or record for reasons having no relevance to class achievement.

ACO194 follows the ASU Academic Integrity Policy in the administration of all course examinations and assignments. Violations of the University Academic Integrity policy will not be ignored. Penalties include reduced or no credit for submitted work, a failing grade in the class, a note on your official transcript that shows you were punished for cheating, suspension, expulsion and revocation of already awarded degrees. The university requires that the implementation of
any of these penalties for violations of the academic integrity policy be reported to the Dean's office. The Integrity Policy defines the process to be used if the student wishes to appeal this action.

In ACO194 you are expected to follow the ASU Student Code of Conduct (http://students.asu.edu/srr/code) especially when communicating with your peers, instructors, and teaching assistants. Violations of the student code of conduct may result in withdrawal from the class.

## Absence Policies:

In addition to the instructor's general policy on absences and missed work, excused absences and conditions for making up work include "Accommodation of Religious Practices" (https://www.asu.edu/aad/manuals/acd/acd30404.html) and "Missed Classes Due to University-Sanctioned Activities"
(https://www.asu.edu/aad/manuals/acd/acd304-02.html). Students must notify their instructors of these absences as early as possible in the semester.

Missed Work/Exam Make-up Policy: Due dates for assignments and exam dates are not flexible. Late work will not be accepted, and missed exams cannot be made up, without prior approval of the instructor and without appropriate documentation of a medical or other emergency. The instructor has the right to deduct $10 \%$ of the value of the assignment, per day, for any late work or exams that are accepted. The instructor also may add additional provisions to this policy as dictated by course requirements.

Final Exam Make-up Policy: The final exam schedule listed in the Schedule of Classes will be strictly followed. Exceptions to the schedule and requests for make-up examinations can be granted only by the director of the School of Mathematical and Natural Sciences for one of the following reasons:

1) religious observances
2) the student has more than three exams scheduled on the same day
3) two finals are scheduled to occur at the same time

Make-up exams will NOT be given for reasons of non refundable airline tickets, vacation plans, work schedules, weddings, family reunions, or other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

If there is a last-minute personal or medical emergency, the student may receive a grade of Incomplete and makeup the final within one calendar month. The student must provide written documentation and be passing the class at the time to receive an Incomplete. A signed "Request for Grade of Incomplete" must be submitted by the student and approved by the student's instructor and the Director of the School of Mathematical and Natural Sciences.

Please be aware that student scores on exams or other graded work may be used for assessment of program goals of degrees offered by the School of Mathematical and Natural Sciences.

## The instructor reserves the right to make changes to this syllabus as needed

If you find it necessary to leave a note for this instructor, please contact the administrative reception desk of the School of Mathematical and Natural Sciences located at CLCC II 265

## Title IX:

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs

## Recording of Lectures:

Our aim is to create a learning environment where all feel free to contribute; thus any recording of class sessions is prohibited (with the exception of those who have a DRC-approved accommodation), and no one should post any verbatim accounts of class discussion or say anything that could identify a class member on social media without the express permission of the course instructor.

## Policy against Threatening Behavior:

In the classroom and out students are required to conduct themselves in a manner that promotes an environment that is safe and conducive to learning and conducting other university-related business. All incidents and allegations of violent or threatening conduct by an ASU student will be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. Such incidents will be dealt with in accordance with the policies and procedures described in Section 104-02 of the Student Services Manual (http://www.asu.edu/aad/manuals/ssm/ssm10402.html).

## Potentially Offensive Content:

A notification such as the following should be included in the syllabus if appropriate for the class in question.
If you find any of the content of his class offensive, please bring your concerns to the instructor immediately.

## Power Outage:

In the event of a campus power outage or other event affecting the ability of the University to deliver classes, any decision to cancel classes will be announced using the ASU emergency notification system. For this reason, it is imperative that students register with the ASU emergency notification system at: https://cfo.asu.edu/emergencyalert. In cases in which a limited number of buildings are affected, students should check the university website and/or call the School office at (602) 543-6050.

## Emergency Evacuation Plan:

Students should be aware of the evacuation route posted on the exit door of each classroom. Students who cannot walk down stairs should notify the instructor as early in the course as possible so the instructor can provide information regarding the location of the designated meeting area on each upper floor of the building (marked with a blue sign that states Emergency Evacuation Response Area).

