EST 305 Applications Software for Information Management
Spring 2020 Syllabus

Section 1: Tuesday and Thursday 5 pm – 6:20 pm Technology and Society Life Sciences 022 and Online SBConnect Classroom

INSTRUCTOR:
- Name – Matthew Henigman
- Office – Old Computer Science 1436
- E-mail – matthew.henigman@stonybrook.edu
- Office Hours – Tuesdays 11:30 pm – 1 pm and by Appointment
- Course Website - http://blackboard.stonybrook.edu/

MEETINGS: This course will be taught as a hybrid course with both face to face and online meetings. Most meetings will be via the online SBConnect classroom during regular lecture times. Face to face meetings will be scheduled for exams and group project work. Regular announcements will be posted confirming our meeting location.

DESCRIPTION: Introduction to the role of applications software in various types of organizations with emphasis on methods of formulating the requisite information flows to engender adequate communications, operation, and control. The importance of audit ability, maintainability, and recoverability in systems design is stressed. Provides students with knowledge of basic techniques and elementary skills in representing system structure with application of the principles in practical case studies using spreadsheet and database software. Extensive interaction with applications software reinforces concepts presented.

COURSE GOALS:
- The student will become acquainted with management science methodologies used in quantitative decision-making.
- The student will learn how to apply these methodologies to model, solve and analyze problems encountered in the management of technological systems.
- The student will acquire insights into the interrelationships between information systems and management science.
- The student will develop skills in software development, research, working within a team, and making presentations.

PREREQUISITES:
- EST 100 - Computer Literacy in a Digital Era or
- CSE 101 - Introduction to Computers and Information Technologies
TEXTBOOKS AND SOFTWARE (NEWER EDITIONS ALSO ACCEPTABLE):


Students will use the following software:

- **Microsoft® Excel** with the **Solver Add-In** and **Visual Basic for Applications (VBA)** - to build models and develop the decision support systems.
- **Microsoft® PowerPoint** - to make presentations.
- **Microsoft® Internet Explorer** and other **Microsoft® Office** programs.

COURSE WEB PAGE: You can access class information on-line at [http://blackboard.stonybrook.edu/](http://blackboard.stonybrook.edu/). If you have used Stony Brook’s Blackboard system previously, your login information (NetID and Password) has not changed. If you have never used Stony Brook’s Blackboard system, you may sign into SOLAR for your NetID and to set a secure password.

For help or more information, you can visit [http://it.stonybrook.edu/services/ltl-student-help-desk](http://it.stonybrook.edu/services/ltl-student-help-desk). If you have problems logging in, go to the helpdesk in the Main Library SINC Site or the Union SINC Site. You can also call 631-632-9602 or e-mail helpme@ic.sunysb.edu.

The course website will contain important information and documents. You should visit the site on a daily basis. The Announcements page will indicate the latest additions/updates to the website and where these additions/updates can be found. Project and homework assignments will be posted on the Assignments page. Links to course notes and spreadsheet files will be placed in folders on the Course Documents page. Information about the instructor and teaching assistant will be posted on the Staff Information page. A link to the syllabus will be placed on the Course Information page. You will also be able to check your grades by selecting the Check Grade link on the Student Tools page.

DSS RESOURCES WEBSITE: The DSS Resources website which contains useful information on decision support systems can be found at the following URL: [http://www.dssresources.com/](http://www.dssresources.com/).

EXAMS: There will be a non-cumulative exam. The exam is tentatively scheduled for Tuesday, March 10th, 2020 during the regular class time. Exams are closed book. However, you may bring one 8.5” x 11” sheet of notes to the exam (single sided). This sheet will be collected with your exam. You may also bring a calculator and a ruler or straight edge to the exam. There will be NO makeup exams without (a) advance notice that you will miss the exam, and (b) written documentation explaining the reason for your absence. The instructor will judge the adequacy of the reason, the appropriateness of a make-up exam, and reserves the right to offer the make-up exam orally. Please keep in mind that makeup exams will be considerably more difficult. Missed exams will be assigned a grade of zero.
**HOMEWORK ASSIGNMENTS:** Homework problems will be assigned periodically. These will relate to topics discussed in the lectures and will test your understanding of the material. Solutions to some homework problems will require the use of a computer. Submit your homework solution through the Assignments feature on Blackboard by the start of class on the due date. You may work alone or with one other student. Place the names and student ID numbers of each student clearly at the top of the first page of the solution set (the top of the first worksheet in a spreadsheet file, the first slide in a graphics presentation file, etc.). Homework assignments will be graded on a 10-point scale. Late homework will **NOT** be accepted. A grade of zero will be assigned to missed homework assignments.

**VBA DEVELOPMENT ASSIGNMENTS:** There will be 3 VBA development assignments assigned to establish a deeper understanding of VBA and appropriate coding practice. These assignments also serve as the foundation for the group DSS semester project. Solutions will be submitted in the form of working programs that will be evaluated as such. Submission will be the same as homework assignments. VBA development assignments will be graded on a 10-point scale, for 30 points total, and will count separately from regularly assigned homework.

**SEMESTER PROJECT AND PRESENTATION:** A major part of the course will be the group project. Each project will involve the planning and development of a decision support system. Students will select a project and form groups based on their interests. The semester project will consist of 3 phases.

- **Phase 1: The System Design** - Each group will prepare a system design for the DSS. The design should include the mathematical model, database model, and user interface. The group will submit their system design to the instructor on 4/3.

- **Phase 2: The Prototype DSS** - Each group will prepare a prototype DSS. The prototype should be functional and demonstrate the key features included in the DSS. The group will submit the prototype DSS to the instructor on 4/17.

- **Phase 3: The Completed DSS** – Each group will complete their DSS. The completed DSS should be fully functional, meet all the design specifications, and be easy to use. The system should be responsive to faulty data and present useful and clear output. The group will submit the completed DSS along with any presentation materials to the instructor on 4/24. Formal presentations of the completed DSS will be made to the class starting on 4/28.

**No assignment submissions via email will be accepted unless otherwise specified.**
Grading:

- Semester Project poorest 40%
  - System Design 10%
  - Prototype 10%
  - Completed DSS (w/ presentation) 20%
- Exam and VBA Development poorest 40%
  - Exam 1 20%
  - VBA Development Assignments 20%
- Homework Assignments 20%

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Americans with Disabilities Act:

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: [http://www.sunysb.edu/ehs/fire/disabilities.shtml](http://www.sunysb.edu/ehs/fire/disabilities.shtml).

Academic Integrity:

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at [http://www.stonybrook.edu/uaa/academicjudiciary/](http://www.stonybrook.edu/uaa/academicjudiciary/)
Critical Incident Management:

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.