Opportunities Week of May 10, 2019

**Fall 2019 Course Offerings in Latin:** Latin is a language for scientists. Latin is an analytical language that is particularly attractive to physicists, biologists and other science majors. Over the course of the past three years, we have taught many science majors who have enjoyed the language because of its logical structure. Many words in science have roots in Latin.

Please see attached file for Fall 2019 offerings

**Summer Offerings in Engineering:** The Materials Science and Chemical Engineering, Mechanical Engineering, Computer Sciences, and Biomedical Engineering departments are all offering non-major courses in Summer 2019. Most of these will fulfill SBC requirements for students.

Please see attached flyers for course listings

**American Liver Foundation Liver Walk:** Join Team HBV at the American Liver Foundation Liver Walk to support patients fighting Liver disease and to raise money for Liver disease research! The mission of the American Liver Foundation is to promote education, advocacy, support services, and research for the prevention, treatment and cure for liver disease. Please join us in participating in this year’s walk and recruit your friends and family to walk with you or support you with a donation. This year, we will be walking with medical students who are in the medical school chapter of Team HBV. They will also be there as mentors who can give advice on getting into medical school.

Event is May 18th at Eisenhower Park - Parking Lot 6, 1899 Park Blvd Westbury, NY 11590.

To donate or join the walk, please see [https://liverlifewalk.org/longisland/support/#stonybrook](https://liverlifewalk.org/longisland/support/#stonybrook)
Summer Session 2019
Earn Up to 18 Credits in 6 Weeks
Satisfy MEC Major or General Education Requirements
www.StonyBrook.edu/summer

Mechanical Engineering Majors & Engineering Electives

MEC 203* (Online)
Engineering Graphics & CAD

MEC 225
Fundamentals of Machining Practices

MEC 262* (Online)
Engineering Dynamics

MEC 363*
Mechanics of Solids

MEC 410* (Online - Extended Session)
Design of Machine Elements

All Undergraduates
Online Courses!

MEC 104 (SBC SNW/TECH Course)
Practical Science of Things

MEC 105 (SBC SNW/TECH Course)
Everyday Science

MEC 280 (SBC STAS Course)
Pollution & Human Health

* Interest in taking these courses during the summer session should be discussed with your advisor.
LATIN 111/591
M/W/F 10am
T/TH 2:30-3:50PM
T/TH 5:30-6:50PM

Latin 251/593- M/F 1-2:20PM
CLS 113- MW 2:30-3:50

Fall 2019 Course Offerings in
LATIN/CLASSICS

Latin is a language for readers. It trains you to read with an analytic eye, to break down words to their simplest forms and then put the pieces back together with greater meaning. It explains those short-italicized phrases that literary critics love to include in their work like “ad hominem” or “a priori.” It contains the origins of our words, something that not only teaches you new words but also deepens your understanding of familiar ones.1

Latin is a language for writers. It teaches you things like what the subjunctive mood is, what a transitive verb is, when to use “whom” or “who.” It will make you learn the rule, and, more importantly, understand the logic behind the rule.

Latin is a language for scientists. Latin is an analytical language that is particularly attractive to physicists, biologists and other science majors. Over the course of the past three years, we have taught many science majors who have enjoyed the language because of its logical structure. Many words in science have roots in Latin.

LAT 111/591- Elementary Latin I
Designed to prepare the beginning student to translate Latin that may be needed for use in undergraduate or graduate study. Focus of the course is on the fundamentals of grammar and techniques of translation.

LAT 251/593: Readings in Latin Literature I
This course serves as an introduction to authentic Latin prose. The students will be introduced to the Roman literature of the Republic and beginning of the Empire. The course includes a brief intensive review of grammar. Additional grammatical constructions will be taught through the literature. The students will read a sampling of several authors including Eutropius, Cornelius Nepos, Caesar, and Sallust

1 Special Thanks to English major and Latin student Jessica Vestuto
SUMMER 2019

COURSE OFFERS

MATERIALS SCIENCE & CHEMICAL ENGINEERING DEPARTMENT

SUMMER -1

CME 201 – SUSTAINABLE ENERGY (DEC:H/SBC:TECH) MW - 5:30-8:55 PM
INSTRUCTOR- WILLIAM CALVO

ESG 111 – PROGRAMMING FOR ENGINEERINGS- MW - 9:30- 12:55 PM
INSTRUCTOR- MAYA KOGA

ESG 198 – ENGINEERING CHEMISTRY- MWTH -6:00-9:05 PM
INSTRUCTOR- ELIZABETH CASEY

ESG 332 – MATERIALS SCIENCE I: STRUCTURE & PROPERTIES
TUTH -1:30-4:55 PM
INSTRUCTOR- T.VENKATESH

SUMMER II

ESG 201 – LEARNING FROM DISASTER (DEC: H/SBC:STAS)
FLEX online offer
INSTRUCTOR- GARY HALADA

ESM 150 – MATERIALS OF THE MODERN WORLD (SBC-TECH)
TUTH -1:30-4:55 PM
INSTRUCTOR – BALAJI RAGHOTHAMACHAR

CME 233 – ETHICS & BUSINESS PRACTICE FOR ENGINEERING
TUTH - 5:30-8:55 PM
INSTRUCTOR – DONNA TUMMINELLO
Earn your SBC: TECH and SNW online this summer with us in 6 weeks
(Summer Session 2: July 8th to August 18th, 2019)

All online!
No test center or on-campus exams

**BME100:**
*Introduction to Biomedical Engineering*

SBC: TECH
3 credits

(Contact the department or instructor if you need to be given permission:
meilin.chan@stonybrook.edu)

Course description on page 2

**BME205:**
*Clinical Challenges of the 21st Century*

SBC: SNW & TECH
3 credits

Course description on page 3
BME100: Introduction to Biomedical Engineering

SBC: TECH
3 credits

• A rigorous introduction to biomedical engineering that provides the historical and social context of BME though contemporary emerging areas within BME. Specific areas covered in depth include: bioelectricity and biosensors (action potentials to signal processing), bioimaging (invasive and non-invasive), genetic engineering (with ethical discussions), and biostatistics. Hands-on computational modeling introduces the physiological concept of positive and negative feedback loops in the body. Emphasis is placed on ways engineers view the living system by using design based approaches and computation.

• Prerequisites: BME major or BNG minor or departmental consent

All online!
No test center or on-campus exams
(Summer Session 2: July 8th to August 18th, 2019)
BME205: Clinical Challenges of the 21st Century

SBC: SNW & TECH
3 credits

All online!
No test center or on-campus exams
(Summer Session 2: July 8th to August 18th, 2019)

• Technology used by current medical practice, focusing on weekly topics associated with a specific disease state. Technology used to diagnose and treat these disease states will be rigorously examined. Weekly topics will include: cancer, cardiovascular disease, Alzheimer's, obesity, diabetes, osteoporosis, osteoarthritis, and organ transplant. Key disease states will be presented in physiological and cellular depth. This course may not be taken for major credit.
Computer Science Undergrad Online Courses in Summer 2019

Courses are open to Non-Computer Science majors. The introductory courses fulfill SBC TECH requirements.

**CSE101: Introduction to Computers** (Session 2 Extended) (Course number: 64094)
Introduces central ideas of computing and computer science, instills practices of computational thinking, and engages students in the creative aspects of the field. Also introduces appropriate computing technology as a means for solving computational problems and exploring creative endeavors. Requires some programming.
SBC: TECH
Undergraduate: 3 credits
Instructor: Kevin McDonnell

**CSE114: Introduction to Object-Oriented Programming** (Session 1 Extended) (Course number: 64222)
An introduction to procedural and object-oriented programming methodology. Topics include program structure, conditional and iterative programming, procedures, arrays and records, object classes, encapsulation, information hiding, inheritance, polymorphism, file I/O, and exceptions. Includes required laboratory.
SBC: TECH
Undergraduate: 4 credits
Instructor: Kevin McDonnell

**CSE 190: Python in Practice** (Session 2) (Course number: 65958)
Introduces programming concepts using the Python language to beginners of programming. Suitable for non-majors and pre-majors. Covers basic software development in Python including principles of developing long lasting programs, such as quality, reliability, speed, maintainability and usability of Python programs. Technical issues covered: variables, data types, and expressions; conditional and iterative statements; functions; lists; classes and objects. Includes programming assignments of an interdisciplinary nature.
SBC: TECH
Undergraduate: 3 credits
Instructor: Paul Fodor

**CSE 191: Applied JavaScript** (Session 1) (Course number: 65959)
Introduces front-end Web standards like HTML, CSS, and JSON, and how to program in JavaScript to build dynamic Web pages. Students will learn the basics of the JavaScript programming language and will learn by example how JavaScript can be employed by Web pages to do things like update Web content and style, render scenes, respond to events, and integrate dynamic multimedia into pages. Students will also be introduced to uses of JavaScript on the Web, including commonly used frameworks for both front-end and back-end purposes. This online course will use example-based learning where students will be given sample projects with partial implementations that they will update and deploy during lecture to demonstrate understanding of the given topic. Students will leave the course with an understanding of how such Web pages are constructed and work.
SBC: TECH
Undergraduate: 3 credits
Instructor: Richard McKenna

**CSE 192: 3D Character Design and Production** (Session 2) (Course number: 65960)
This course covers design principles and production techniques for developing 3d characters for animation and video games. Keyframe animation and inverse kinematics will be covered.
SBC: TECH
Undergraduate: 3 credits
Instructor: Anthony Scarlatos

**CSE 351: Introduction to Data Science** (Session 1) (Course number: 65987)
This multidisciplinary course introduces both theoretical concepts and practical approaches to extract knowledge from data. Topics include linear algebra, probability, statistics, machine learning, and programming. Using large data sets collected from real-world problems in areas of science, technology, and medicine, we introduce how to preprocess data, identify the best model that describes the data, make predictions, evaluate the results, and finally report the results using proper visualization methods. This course also teaches state-of-the-art tools for data analysis, such as Python and its scientific libraries.
Undergraduate: 3 credits
Prerequisite: CSE 214 or CSE 260; AMS 310; Or, equivalent
Instructor: Martin Radfar