Opportunities Week of May 4, 2018

**SUNY Field Courses in Belize:** 2 week field courses deliver hands on, practical experience involving students in their career choices. Take two courses and spend four weeks in Belize! Courses include Large Animal Veterinary Practice in the Tropics, Wildlife Health, Ecology and Conservation, Primate Ecology and Conservation, Global Health Biology, Medicine and Public Health in the Tropics, and Health, Belief and Ethnomedicine. Winter session runs December 26-January 7, 2019. For more info, see [www.celabelize.com](http://www.celabelize.com) SUNY students apply online through the International Programs office on the Cortland campus.

**Introduction to Respiratory Care Course:** If you like helping people, have an aptitude for the life sciences, and are interested in a challenging and rewarding career, then check out this course! HAT 210 is being offered this fall semester. The course provides an introduction to the science of respiratory care, sleep technology, and cardiac care, examining current trends in professional practice. This course is open to west campus students, and is encouraged if you are interested in learning more about these career paths! For more info, see attached flyer.

**Speech-Language Pathology Pre-requisite Courses:** The School of Health Technology and Management will be offering speech-language pathology (SLP) pre-requisite courses. These courses are designed for students who are interested in applying for admission to graduate programs in SLP. See attached flyer for more info. Questions can be directed to Dr. Renee Fabus (renee.fabus@stonybrook.edu)

**Reading Day Tutoring:** Residential Tutoring Centers will be offering free walk-in tutoring for all introductory MAT, CHE and PHY courses. Healthy snacks and refreshments, adult zen coloring and make your own stress ball activities will be offered. Tutoring will be in the LDS Center May 7th, 5:00-11:00 PM Please see attached flyer

**Study Abroad in Greece through Old Westbury College:** Ecological Genomics course includes one week at Old Westbury College and three weeks near the Lake of Ioannina, Greece, where you will utilize scientific techniques to characterize an ecosystem by identifying the plant species around the lake and the contamination from farming and the city. Course runs July 13-August 3, 2018. Total cost is $5,400 For more info, see attached flyer or contact Iana Thomas (thomasi@oldwestbury.edu)

**LIU Post MS Biology Program:** LIU Post offers two MS degrees in Biology: (1) Thesis: Research Track: perfect for students interested in academic or private sector careers focused on ecology, conservation, evolution, genetics, or medical research; and (2) Non-Thesis: Professional Track: serving students striving for careers in health-related fields (Medical, PA, Dental, Veterinary, etc.). Enrolled students have the opportunity to TA biology labs and tutor within the Biology Department, with financial support for up to one graduate course per semester, as well as hourly pay. International and US applicants are encouraged and supported. Admission is open and requirements can be found [here](http://www.liup.ac/)

**Department of Materials Science & Chemical Engineering Summer Courses:** These summer courses are offered at or through Stony Brook University (one is on line). These courses would be excellent for students looking for coursework in sustainable energy, MATLAB programming for engineers, materials science and engineering, and coursework which teaches about risk and ethics in engineering. For list of courses being offered, see attached file.
**David F. Ludwig Memorial Student Travel Scholarship:** Up to $1,000 will be awarded each year per applicant conducting and/or presenting research in the field of ecology, pursuing a graduate or undergraduate degree from an accredited US University. **Application deadline is July 1, 2018**
For more info and to apply, see [http://www.aehsfoundation.org/David-F-Ludwig-Travel-Scholarship.aspx](http://www.aehsfoundation.org/David-F-Ludwig-Travel-Scholarship.aspx)

*Disclaimer: Undergraduate Biology does not endorse or take responsibility for any off-campus programs listed in Opportunities emails. While we do our best to vet any opportunity that is shared, please let us know immediately if you are suspicious of any employers/programs.*
Study abroad
3 weeks in Greece  4 credits
Course : Ecological Genomics

Dates: July 13 – August 3 2018
Total costs: $5400
(all included e.g. airfare, program, excursion, housing meals, tuition)

Course description: A one week at OW college and three weeks near the Lake of Ioannina, Greece, where you will utilize scientific techniques to characterize an ecosystem by identifying the plant species around the lake and the contamination they get from both farming and the city. Lodging and meals will be at the University of Ioannina. Excursions to local sites are included.

Information contact: Iana Thomas (thomasi@oldwestbury.edu) in Office of International Enrollment Services (OIES, Campus Center, Room 1-210), 516.628.5025
If you like helping people, have an aptitude for the life sciences, and are interested in a challenging and rewarding career, then check out the following course!

**HAT 210 Introduction to Respiratory Care**

This course provides an introduction to the science of respiratory care, sleep technology, and cardiac care, examining current trends in professional practice. Each student will have the opportunity to research and present a topic concerning the contemporary practice of a respiratory therapist, polysomnographic technologist, or a cardiovascular technologist. This course is specifically designed for lower-division four year respiratory care and polysomnographic technology majors. This course is not eligible for the G/P/NC option. It is open to west campus students. The class number for Fall 2018 is 95378.

The course is offered from 1 to 2 pm on Thursdays in the Respiratory Care Teaching Laboratories (HSC Level 2, Room 464) during the both the Fall and Spring semesters. Academic advisement will be provided for students seeking admission.

Register today to learn more about these professions

And, don’t forget to ask about the freshman declared major option! Freshmen can be automatically admitted into the Respiratory Care or Polysomnographic Technology program by declaring one of these majors.

Call us at (631) 444-3180 for more information or to schedule an appointment

RESPIRATORY CARE • SLEEP TECHNOLOGY • CARDIAC CARE
The School of Health Technology and Management offers speech-language pathology (SLP) pre-requisite courses. These courses are designed for students who are interested in applying for admission to graduate programs in SLP.

<table>
<thead>
<tr>
<th>Schedule of Courses for Summer 2018 and Winter 2019</th>
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<tbody>
<tr>
<td>Summer Session I 2018</td>
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<tr>
<td>HAS 311: Speech and Language Development (online)</td>
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<tr>
<td>Summer Session II 2018</td>
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<tr>
<td>HAS 312: Anatomy and Physiology of the Speech, Language and Hearing Mechanism (online)</td>
</tr>
<tr>
<td>Winter Session 2019</td>
</tr>
<tr>
<td>HAS 313: Speech Science</td>
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<tr>
<td>To Be Determined</td>
</tr>
<tr>
<td>HAS 310: Applied Phonetics of English</td>
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</tbody>
</table>

How do I enroll in these courses?

**SBU Students:** Register via Solar - https://it.stonybrook.edu/services/solar.

**Non-SBU Students:** Apply through the School of Health Technology and Management (SHTM) for non-matriculated status. Contact Dr. Renee Fabus at renee.fabus@stonybrook.edu

For more information or additional questions contact:

Renee Fabus, Ph.D., CCC-SLP, TSHH
Associate Professor
Associate Dean for Research - SHTM
Chair of Proposed Speech-Language Pathology Graduate Program
Phone number: (631) 638 - 0502
Email address: renee.fabus@stonybrook.edu
Website: https://healthtechnology.stonybrookmedicine.edu/news/speech_language_pathology
Reading Day Tutoring

Presented by the Residential Tutoring Centers

LDS Center • May 7
5:00 – 11:00 PM
Healthy Snacks & Refreshments
Adult Zen Coloring
Make Your Own Stress Ball

Free Walk - In Tutoring for all Introductory MAT, CHE & PHY Courses
MATERIALS SCIENCE & CHEMICAL ENGINEERING DEPARTMENT
SUMMER 2018 OFFERS:

SUMMER-I

CME 201: Sustainable Energy - Evaluating the Options
SUMMER –I MW 5:30PM -8:55PM
INSTRUCTOR: WILLIAM CALVO
STAS COURSE- OPEN TO ALL MAJORS
DESCRIPTION: Assessment of current and future energy delivery systems; extraction, conversion, and end-use will be discussed with the emphasis on meeting 21st Century regional and global energy needs in a sustainable manner. Different renewable and conventional energy technologies will be examined and analyzed and their attributes (both positive and negative) described within a framework that takes into account the technical, economic, social, political and environmental objectives associated with a sustainable energy policy. Case studies of specific applications of sustainable energy to societal needs will be analyzed and discussed.
3 credits

ESG 111: Programming for Engineers
SUMMER –I MW 9:30 AM -12:55PM
INSTRUCTOR: MAYA KOGA
Learn MATLAB coding: Made easy for students in various majors (engineering, science, business, economics etc.) without knowledge of advanced computer programming.
DESCRIPTION: Introduces computer programming techniques for engineering students who have not completed any programming courses prior. Students learn the basics of programming in general and programming MATLAB in particular. This is designed for students to become comfortable enough to continue learning MATLAB and other programming languages on their own.
Pre- or Co-requisites: AMS 151 or MAT 125 or 131 or 141; PHY 125/133 or 131/133 or 141 (Note for non-SBU students: This is Calc I plus the first year physics with lab)
3 credits

ESG 332: Materials Science I: Structure and Properties of Materials
SUMMER-I TUTH 1:30PM-4:55PM
INSTRUCTOR: T.VENKATESH
DESCRIPTION: A study of the relationship between the structure and properties of engineering materials and the principles by which materials' properties are controlled. The structure and structural imperfections in simple crystalline materials and the role that these factors play in defining electrical conductivity, chemical reactivity, strength, and ductility are considered. The molecular structure of polymers is discussed and related to the behavior of plastics, rubbers, and synthetic fibers. The principles of phase equilibria and phase transformation in multicomponent systems are developed. These principles are applied to the control of the properties of semiconductors, commercial plastics, and engineering alloys by thermochemical treatment. Corrosion, oxidation, and other deterioration processes are interpreted through the interaction of materials with their environment.
Prerequisites: CHE 131 and CHE 133 (or Mechanical Engineering majors may use MEC 301 as a co-requisite). (Note for non-SBU students: This is just first college semester chemistry plus lab.)
3 credits

ESM 150: Materials of the Modern World
SUMMER II -TUTH 1:30-4:55PM
INSTRUCTOR: BALAJI RAGHOTHAMACHAR
DATES: 7/9/2018 - 8/18/2018

SUMMER-II
DEC/SBC COURSE - FOR ALL MAJORS

DESCRIPTION: Many of the technologies we rely on in our everyday lives - e.g. bridges, buildings, and other infrastructure, computers and modern electronics, energy efficient means of transportation, among many others - have only been made possible through the development and implementation of cutting-edge materials. Materials science principles will be introduced in the context of modern-day engineering applications. An overview of materials structure and its implications for engineering properties will be discussed and connected to real-world technologies through case studies. Design, selection, and problem solving techniques in material science will be demonstrated through problem sets and an interactive materials design project. Note: This course may not be used by ESG majors as a substitute for ESG 332.

Prerequisite: Level 3 or higher on the mathematics placement examination.

3 credits

ESG 332: Materials Science I: Structure and Properties of Materials
SUMMER II - TUTH 9:30-12:55PM
DATES: 7/9/2018 – 8/18/2018
INSTRUCTOR: CLIVE CLAYTON

DESCRIPTION: A study of the relationship between the structure and properties of engineering materials and the principles by which materials' properties are controlled. The structure and structural imperfections in simple crystalline materials and the role that these factors play in defining electrical conductivity, chemical reactivity, strength, and ductility are considered. The molecular structure of polymers is discussed and related to the behavior of plastics, rubbers, and synthetic fibers. The principles of phase equilibria and phase transformation in multicomponent systems are developed. These principles are applied to the control of the properties of semiconductors, commercial plastics, and engineering alloys by thermochemical treatment. Corrosion, oxidation, and other deterioration processes are interpreted through the interaction of materials with their environment.

Prerequisites: CHE 131 and CHE 133 (or Mechanical Engineering majors may use MEC 301 as a corequisite). (Note for non-SBU students: This is just first college semester chemistry plus lab.)

3 credits

ESG 201 (Online): Learning from Engineering Disaster
SUMMER II – ANYTIME
INSTRUCTOR: GARY HALADA

DESCRIPTION: The role of the engineer is to respond to a need by building or creating something along a certain set of guidelines (or specifications) which performs a given function. Just as importantly, that device, plan or creation should perform its function without fail. Everything, however, does eventually fail and, in some cases, fails with catastrophic results. Through discussion and analysis of engineering disasters from nuclear meltdowns to lost spacecraft to stock market crashes, this course will focus on how modern engineers learn from their mistakes in order to create designs that decrease the chance and severity of failure. (Additional info: The course also discusses the role of engineering ethics and Value Sensitive Design in reducing the likelihood of failure, as well as introduction to the theory of probabilistic risk assessment and complex systems.)

Prerequisite: one D.E.C. E or SNW course (For students outside Stony Brook, this means at least one course in the physical sciences or engineering, basically....)

3 credits

CME 233: Ethics and Business Practices for Engineers
SUMMER II - TUTH 5:30-8:55PM
INSTRUCTOR: DONNA TUMMINELLO

DESCRIPTION: Critical business concepts as they relate to engineering practices. Survey of general business environment and business functions, with an emphasis on ethics and law, economics, finance, and marketing. Project management of cost, risk and alternatives.

3 credits