

REPORT TO THE UNIVERSITY SENATE

TO: University Senate

FROM: Dennis N. Assanis, Provost and Senior Vice President for Academic Affairs

DATE: October 5, 2015

Establishment of a Department of Civil Engineering at Stony Brook University

Following the guidelines for the creation of new academic departments, and with the unanimous support from the University Senate, Stony Brook University has established a Department of Civil Engineering, effective July 1, 2015. An independent Department of Civil Engineering was needed in order to attract top students, recruit and retain the best faculty, and effectively engage with industry, government, funding agencies and donors. Department status was also needed to demonstrate our commitment to civil engineering, which will be an important element in the successful accreditation of the undergraduate program by ABET. Civil engineering is essential to a comprehensive college of engineering at a research university. In fact, 19 of the top 20 public research universities have strong departments of civil engineering. The Department of Civil Engineering at Stony Brook University is the only one on Long Island, public or private, and only the second department at a public university in New York City. Furthermore, the only other comprehensive (B.E./B.S. to Ph.D.) Department of Civil Engineering in the SUNY system is housed at the University of Buffalo. Therefore, the newly-created Department of Civil Engineering at Stony Brook University will be the only SUNY program on Long Island, and the only SUNY program close to New York City and the eastern and southern regions of New York.

Furthermore, there is a critical need for new civil engineers in the state of New York and nationally, as well as a crucial need to improve the sustainability and resiliency of our infrastructure systems. The National Academy of Engineers has identified a number of “grand challenges” for engineering, two of which fall squarely within the field of civil engineering, namely to “restore and improve urban infrastructure” and to “provide access to clean water.” Civil engineering at Stony Brook is capitalizing on these research needs by establishing strength in the core areas of structural, geotechnical, transportation, and environmental engineering and by creating synergies and collaborations around integrative research themes, such as molecular science and engineering, resiliency and sustainability, and coastal engineering. Furthermore, civil engineering has been identified as an area of “high need” by the State of New York, indicating that increases in workforce are needed in the this area in order to meet employer demand. This designation is consistent with national trends as well. The United States Bureau of Labor (USBOL) predicts that civil engineering will be the second fastest growing field of engineering over the next ten years, estimating that there will be a 20 percent increase in job growth in civil engineering through 2022.

The Director of the Civil Engineering Program, Harold Walker, Professor of Civil Engineering, has been appointed to serve as the Founding Chair of Stony Brook’s new Department of Civil Engineering, effective July 1, 2015. Harold received his B.S. from California Polytechnic State

University, and an M.S. and Ph.D. from the University of California, Irvine, in Environmental Engineering. Prior to joining the Stony Brook faculty in 2012, he has served as the Director of the Ohio Water Resources Center (2006-2012) and a Professor of Civil, Environmental and Geodetic Engineering (1996-2012) at Ohio State University. Dr. Walker's research focuses on understanding surface chemical processes in natural and engineered systems, with an emphasis on clean water. His current areas of research include: predicting the fate and transport of manufactured nanomaterials, cyanotoxins, and other "emerging" contaminants in groundwater, lakes, oceans, and water treatment plants; developing novel membrane treatment systems and membrane cleaning approaches; determining the vulnerability of the public to cyanotoxins in finished drinking water; and understanding the environmental implications of energy extraction and electricity production. His research has been sponsored by a number of agencies, including the NSF, USGS, NOAA, USEPA, as well as a host of state and local sources.

Dr. Fotis Sotiropoulos Selected as the Next Dean of Stony Brook University's College of Engineering and Applied Sciences (CEAS)

After a competitive national search, Dr. Fotis Sotiropoulos has been selected as the next Dean of Stony Brook University's College of Engineering and Applied Sciences (CEAS), effective October 15, 2015. Dr. Sotiropoulos' selection as Dean of the College of Engineering and Applied Sciences was made under the direction of co-chairs Joseph Mitchell, Chair of Applied Mathematics and Statistics, and Wendy Tang, Associate Provost for Online Education and Associate Chair of Electrical and Computer Engineering, and with the participation of a dedicated search committee. The search process was assisted by the executive search firm Russell Reynolds Associates.

Fotis Sotiropoulos is the James L. Record Professor of Civil, Environmental and Geo-Engineering, and the Director of the St. Anthony Falls Laboratory, at the University of Minnesota, Twin Cities (UMN). Before his appointment at the UMN, Sotiropoulos was on the faculty of the School of Civil and Environmental Engineering, with a joint appointment in the G. W. Woodruff School of Mechanical Engineering, at the Georgia Institute of Technology. Dr. Sotiropoulos received his Ph.D. degree in Aerospace Engineering from the University of Cincinnati and his MS, also in the same field, from Pennsylvania State University. Dr. Sotiropoulos' research focuses on simulation-based engineering science for fluid mechanics problems in renewable energy, environmental, biological, and cardiovascular applications. Funded by the National Science Foundation, the Department of Energy, the National Institutes of Health, the Sandia National Laboratories, private industry, and other state and federal agencies, over the last ten years, Sotiropoulos has raised over \$17M in externally-sponsored funds for research, as well as \$17M in research facility development and renovation. He has authored over 160 peer reviewed journal papers and book chapters. Sotiropoulos is a Fellow of the American Physical Society (APS), has twice won the APS Division of Fluid Dynamics Gallery of Fluid Motion (2009, 2011), and is a recipient of a Career Award from the National Science Foundation. Please visit <http://goo.gl/y50BJI> to link to the full press release on this announcement.

Margaret Anne Schedel Appointed Director of Stony Brook University's Consortium for Digital Arts, Culture, and Technology (cDACT)

Margaret Anne Schedel has been appointed as the next Director of Stony Brook University's Consortium for Digital Arts, Culture, and Technology (cDACT), effective November 1, 2015. She is a composer and cellist specializing in the creation and performance of interactive media whose works have been performed throughout the United States and abroad. Meg is an Associate Professor of Music at Stony Brook University and serves as Co-Director of Computer Music. She is also the President of the Arts and Sciences Senate. This year, she will be a panelist on Human Computer Interaction at CS Tech Day and will give a talk entitled "The Data Sensorium: Multimodal Exploration of Scientific Data Sets" as part of the lecture series for the Institute for Advanced Computational Science. One of her audio installations will also be on display in the 2015 Faculty Exhibition at the Paul W. Zuccaire Gallery. While working towards a DMA in music composition at the University of Cincinnati's College Conservatory of Music, her interactive multimedia opera, *A King Listens*, premiered at the Cincinnati Contemporary Arts Center and was profiled by apple.com. Her research focuses on computer recognition of gesture in music, the sustainability of technology in art, and sonification of data. She serves on the boards of 60x60 and the International Computer Music Association, is a joint author of Cambridge University Press's *Electronic Music* and is a regional editor for *Organised Sound*.

Stony Brook University's cDACT initiative emphasizes critical thinking and hands-on experimentation, while employing methodologies and tools from the arts, sciences, and humanities. The core faculty, along with over fifty affiliate faculty, comprise theorists, researchers, and practitioners with a wide range of disciplinary backgrounds. As technologies continue to transform both our experience and understanding of the world and our interaction with it, cDACT offers a unique environment for exploring the cultural, aesthetic, philosophical and historical issues that arise at the intersection of computation and the arts.

Eng Kion Tan Appointed Director of Stony Brook University's Confucius Institute

Eng Kion Tan has been appointed Director of Stony Brook University's Confucius Institute, effective February 26, 2015. E.K. Tan is Associate Professor of Comparative Literature and Cultural Studies in the Department of Cultural Analysis and Theory. He received his Ph.D. in Comparative Literature from the University of Illinois at Urbana-Champaign in October 2007. His areas of interest include Modern Chinese and Sinophone Literature, Cinema, and Culture, Comparative Literature, Southeast Asian studies, Diaspora studies, and theories of Cultural Translation, Postcolonialism, Globalization, Transnationalism, and Cinema. His first book, *Rethinking Chineseness: Transnational Sinophone Identities in the Nanyang Literary World*, examines the relationship between the Nanyang Chinese, their original homelands (Borneo, Malaysia and Singapore), and their imaginary homeland (China) through the works of writers such as Kuo Pao Kun, Zhang Guixing, and Vyvyan Loh. The manuscript identifies the methods with which these writers have reclaimed a sense of belonging to their homelands by destabilizing the notion of Chineseness. His next project, *Queer Homecoming in Sinophone Visual Culture*, proposes the concept of "queer homecoming" as a critical intervention to the normative patrilineal kinship structure in Sinophone societies defined by traditional family values, such as those of Confucianism. Queer homecoming as intervention enables the

articulations of alternative kinship structures in mainstream cultural expressions to destabilize the fixity of the myth of consanguinity among Sinophone communities.

Established in November 2008, the Confucius Institute at Stony Brook University (CISBU) is an educational partnership between Stony Brook University and China's Office of Chinese Language Council International, or Hanban. The Confucius Institute also maintains a partnership with its Chinese affiliate, Zhongnan University of Economics and Law (ZUEL), in Wuhan, China. The Confucius Institute serves as a resource for Stony Brook University and the surrounding community by enhancing the community's understanding of Chinese language and culture. In addition, CISBU seeks to strengthen cultural and educational exchanges between China and the United States.

2015-2016 SBU Online Learning Development Initiative (S-BOLD)

The President and Provost of Stony Brook University, in support of the continuing evolution of educational excellence for our students and the world, established the Stony Brook Online Learning Development Initiative (S-BOLD) in 2014-2015, funded initially for four years at a level of \$250,000 per year. The goals of the initiative are to: leverage online channels and technology to enhance and support SBU's educational mission; improve the quality, flexibility and accessibility of SBU education to better serve the needs of residential, commuter and nontraditional students; become a leader in pedagogical innovation to enhance teaching and learning outcomes; and enhance SBU's brand and global reach. The initiative seeks new and innovative proposals to develop both online and blended-learning courses and/or tools that offer special opportunities for learners at Stony Brook University and beyond. This year's call will focus on two categories: large courses with projected enrollment of at least 200 students and those with interactive/hands-on/collaborative/experiential learning components. A successful proposal must have significant curricular impact and advance understanding of effective practices for online learning. In 2015-2016, the initiative will continue to give preference to proposals that address time-to-graduation and graduation rates which will be in place by fall 2016, spring 2017, or summer 2017. Foundational courses that lead to degree completion and efforts that increase timely success in such courses are particularly sought.

Awards will be made at three levels in order to encourage small (up to \$10,000), medium (\$10,000-25,000), and large (\$25,000-50,000) projects. There is no fixed ratio of the different levels and categories of awards. Letters of intent are due Friday, Oct 30, 2015, with feedback provided on LOI's selected for proposal development by Friday, Dec 4, 2015. Full proposals will be due by Friday, February 12, 2016, and award announcements made mid-April, 2016. For additional information on the preparation of the LOI and proposal, as well as on the review process, please contact Wendy Tang, the Associate Provost for Online Education, at wendy.tang@stonybrook.edu or 631 632-7012.

Call for Nominations for the 2015-2016 Chancellor's Awards for Excellence

The Office of the Provost is pleased to announce the 2015-2016 call for nominations for the Chancellor's Awards for Excellence. The Chancellor's Awards for Excellence are System-level honors conferred to acknowledge and provide system-wide recognition for consistently superior professional achievement and to encourage the ongoing pursuit of excellence. These

programs underscore SUNY's commitment to sustaining intellectual vibrancy, advancing the boundaries of knowledge, providing the highest quality of instruction, and serving the public good. Through these awards, SUNY publicly proclaims its pride in the accomplishment and personal dedication of its instructional faculty, librarians and professional staff across its campuses. The awards provide SUNY-wide recognition in five categories: Faculty Service, Librarianship, Professional Service, Scholarship and Creative Activities, and Teaching.

The nomination form and complete guidelines for preparing the nomination files are located at: <http://www.stonybrook.edu/commcms/provost/resources/nominations.html>. The nomination form only must be submitted electronically no later than Thursday, October 15, 2015. The completed nomination file must be received by Maureen Wozniak in the Provost's Office no later than Thursday, November 19, 2015.

Laufer Center Distinguished Seminar Lecture

Please save the dates for the Laufer Center Distinguished Seminar lecturer, David Botstein, who will give two lectures, both at 2:30 p.m. in the Laufer Center, Lecture Hall 101. On Thursday, October 15, 2015, he will give a talk entitled "Evolution and Cancer," and on Friday, October 16, 2015, he will speak on "Understanding Cellular Stress Response at the System Level in Yeast." David Botstein is one of the world's leading geneticists, and is Calico's Chief Scientific Officer. Prior to his appointment with Calico, Botstein was at Princeton University, where he was Director of the Lewis-Sigler Institute from 2003-2013, and where he remains the Anthony B. Evnin Professor of Genomics. He has taught at MIT (1967-1987), became Vice President at Genentech (1987-1990), and then Chairman of Genetics at Stanford (1990-2003). He was elected to the National Academy of Sciences in 1981 and the Institute of Medicine in 1993. Among his awards are the Eli Lilly Award (1978), Genetics Society Medal (1988), American Society for Human Genetics Allen Award (1989), Rosenstiel Award (1992), Gruber Prize in Genetics (2003), Albany Medical Center Prize (2010), Dan David Prize (2012), and Breakthrough Prize in Life Sciences (2013). Dr. Botstein co-founded the *Saccharomyces* Genome Database and first applied DNA microarray technology to study genome-wide gene expression. He devised a way to systematically map the human genome using DNA polymorphisms. This became a cornerstone of the new science of genomics, for which he was recently awarded the Breakthrough Prize.

Fall 2015 Provost's Lecture Series

On Thursday, October 8, 2015 at 4:00 p.m. in the Simons Center Auditorium, Room 103, Josh Levs will present a lecture entitled "The Myth of the Modern Dad: What the New York Times, Pew Research, and Everyone Else Got Wrong." Josh Levs is an investigative journalist, expert on issues facing modern families, and author of *All In: How Our Work-First Culture Fails Dads, Families, and Businesses—And How We Can Fix It Together*. After 20 years of reporting for NPR and CNN, Levs, a father of three, focuses his book on dispelling myths about today's dads and moms, and explaining the necessity of new policies such as paid family leave. Levs has received six Peabody Awards and two Edward R. Murrow Awards. A scholarship was awarded in his name at his alma mater, Yale University, and he was named Journalist of the Year by the Atlanta Press Club. This lecture is co-sponsored with the Center for the Study of Men and Masculinities.

On Friday, October 16, 2015 at 12:00 p.m. in the Wang Center, Lecture Hall 2, we will host a lecture by Carl F. Hobert entitled “Raising Global IQ.” Since 2008, he has served as the Faculty Director of the Global Literacy Institute at Boston University. Hobert received a B.A. in French and Political Science, and an M.A. in Spanish, from Middlebury College. He also received an M.A. in International Conflict Resolution Education from Tufts University’s Fletcher School of Law and Diplomacy. In this lecture, he will discuss how this generation of college students is increasingly interested in learning about international crises, from the war in Syria to global warming and beyond. But in order to teach students how to devise solutions to these often complex problems, he argues that they need both in-class and in-the-field experience. Hobert explores how he does this effectively in his “Educating Global Citizens” course. In this seminar, Hobert uses what he calls the “Intellectual Outward Bound case study approach” to conflict resolution in order to teach students how to play roles on many different sides of conflicts in order to raise their Global IQ, and to hone their personal conflict analysis, management and prevention skills. This lecture is co-sponsored with the Department of Linguistics.

On Monday, October 26, 2015 at 4:00 p.m. in the Wang Center, Lecture Hall 2, we will host the presentation of the Rohlf Medal to Benedikt Hallgrímsson. The Rohlf Medal was established in 2006 by the family and friends of F. James Rohlf to mark his 70th birthday. He has been a longtime Stony Brook University faculty member and is currently Emeritus Distinguished Professor in the Department of Ecology and Evolution, and Research Professor in the Department of Anthropology. Recipients of the Rohlf Medal are recognized for excellence in their body of work on the development of new morphometric methods or for their applications in the biomedical sciences, including evolutionary biology, population biology, physical anthropology, and medicine. Benedikt Hallgrímsson will also give a talk entitled “Morphometrics and the Middle-Out Approach to Complex Traits.” He is a Professor of Cell Biology and Anatomy at the University of Calgary's Alberta Children's Hospital Research Institute and the McCaig Institute for Bone and Joint Health. Benedikt Hallgrímsson is a biological anthropologist and evolutionary biologist who combines developmental genetics and bioinformatics with 3D imaging and morphometrics to address the developmental basis, as well as evolutionary significance, of phenotypic variation and variability. His work has focused on the mammalian craniofacial complex, craniofacial dysmorphology in humans, and skeletal biology and disease, and has employed both experimental and comparative approaches. This event is co-sponsored by the Rohlf Medal Fund and the Department of Ecology and Evolution.