

Notes:

A B average or higher in all courses taken for the Minor is required for the completion of the Minor.

Co-directors: Dr. Gary Halada, Dr. Mary Frame-McMahon, Dr. Chad Korach, Dr. David Ferguson

For more information, contact:

Professor Gary P. Halada
Department of Materials Science
and Engineering
Stony Brook University
Stony Brook, New York 11794-2275
ghalada@notes.cc.sunysb.edu



Participating Departments at Stony Brook University include:

- Materials Science and Engineering
- Biomedical Engineering
- Mechanical Engineering
- Technology and Society
- Physics and Astronomy

Undergraduate majors from all Departments are welcome to take part in the NTS program. Please contact Professor Halada or one of the co-directors to discuss admittance to and participation in the Minor.

<http://www.sunysb.edu/nanotech>

New: See our Nanotechnology blog at <http://facultycenter.cc.stonybrook.edu/nanotechnology/>

“Nanotechnology Studies” also has a group on linkedin.com – come join us!



Minor in Nanotechnology Studies (NTS)

How you can learn about the exciting emerging field of nanotechnology at Stony Brook University – the new innovative, interdisciplinary, research-intensive Minor.

Supported by a grant from the National Science Foundation, program in Nanotechnology Undergraduate Education (NUE)



Minor in Nanotechnology Studies (NTS)

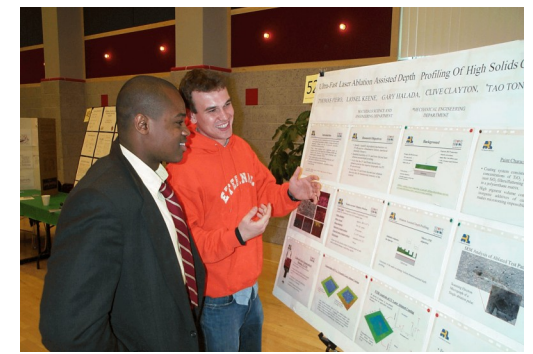
The Program: The Minor in Nanotechnology Studies (NTS) is an interdisciplinary, research-intensive program intended for students in majors from the College of Engineering and Applied Sciences or the College of Arts and Sciences who want to learn about the emerging field of nanotechnology. The coursework in the Minor will provide a broad background in the science, design, manufacture, and societal, health and environmental impacts of nanomaterials and nanoscale structures and their applications in engineering and health-related areas.

Multidisciplinary Research: The inclusion of a minimum of two semesters of research in the students' own major areas, as well as choice of technical electives, will allow for integration into current interests and disciplines, and will provide knowledge and skills valuable to students planning to seek employment or graduate studies in fields related to the engineering, business, policy or broader impact of nanotechnology.

Admittance: Admittance to the Minor will require the approval of the NTS faculty committee, following review of student performance in the 213 class and other relevant coursework.

Required Courses:

- **ESM 213 or BME 213 or MEC 213 or EST 213: Studies in Nanotechnology** — 3 credits, taught in the Fall semester each year **by a team of faculty from Materials Science, Biomedical Engineering, Mechanical Engineering, and Technology and Society**, plus outside speakers in health, business and environmental fields.
- **Two semesters** (or research equivalent to 6 credits) of **independent research** (499 or 488), co-advised by a faculty member from the student's major program and also a second faculty advisor from the NTS program committee. Students' primary research advisor may also be external (e.g. Brookhaven National Laboratory).
- **Two Technical Electives** (see list provided)
- **ESM 400 or BME 400 or MEC 400 or EST 400: Research and Nanotechnology** — a 3-credit course offered in the Spring semester each year in which students **prepare a journal-quality manuscript describing their research, a professional**

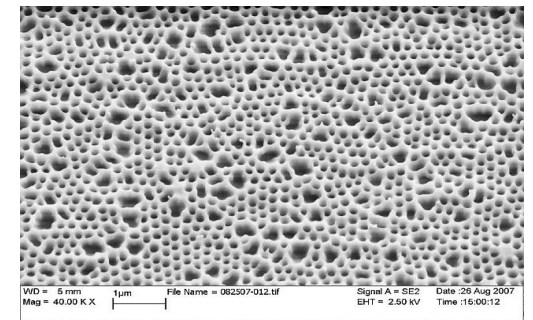


Symposium for Undergraduate research and Creative Activity (URECA)

Technical Electives:

- BME 381: Nanofabrication in Biomedical Applications
- ESE 231: Introduction to Semiconductor Devices
- ESM 212: Environmental Materials Engineering
- ESG 339: Thin Film Processing
- CHE/ESM 378: Materials Chemistry
- PHY 472: Solid State Physics
- MEC 470: Introduction to Tribology
- EST 391: Technology Assessment
- BUS 353: Entrepreneurship

Other technical electives may be substituted with the permission of the co-directors of the Minor.



Undergraduates created this imprint of nanostructure from a cicada wing in a polymer coating using a nanopress.