

Exchange pathways between U of T ECE and National Tsing Hua University (NTHU) in Taiwan

Information Session

February 3, 2026



The Edward S. Rogers Sr. Department
of Electrical & Computer Engineering
UNIVERSITY OF TORONTO

Today's Agenda

- Welcome (12:10-12:15): Professor Will Cluett
- The Value of an Academic Exchange (12:15-12:25): Dean Chris Yip
- The Exchange Pathway for ECE students to NTHU (12:25-12:40): Professors Wai Tung Ng and Olivier Trescases
- Discussion and Q&A (12:40-1:00)



Our Objective

- Create exchange pathways for U of T ECE students to spend a semester at NTHU in Taiwan and earn their certificate in **Semiconductor Engineering with Taiwan Innovations (SETI)**
- Encourage students to do their exchange in the Winter semester of 3rd Year (3S) because:
 - it would allow these students to consider taking up a research internship at NTHU following 3S, and/or
 - it would allow these students to consider taking up a PEY internship in Taiwan following 3S.



National Tsing Hua University

- Established in Beijing in 1911 as “Tsing Hua Academy”
- In 1956, National Tsing Hua University was re-established at its present location in Hsinchu, Taiwan
- NTHU is a comprehensive research university offering a full range of degree programs in science, technology, engineering, humanities, social sciences, and management
- NTHU consistently ranks as one of the premier universities in Asia



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SETI Certificate Program at NTHU

- The NTHU objective is:

To equip students with knowledge of Taiwan's advancements in semiconductor and engineering industries while fostering a comprehensive perspective on its society, economic development, and global influence.

- We view this as a laudable goal for our students going on exchange at NTHU



SETI Certificate Program Requirements

- Students must complete at least **five courses** from the designated modules (Semiconductor Technology and Engineering Module & Liberal Arts, Politics, Economics, and Language Module), totaling more than 15 credits.
- Among these, at least **three courses** must be from the Semiconductor Technology and Engineering Module, and at least **two courses** from the Liberal Arts, Politics, Economics, and Language Module.



Our approach to helping students go on exchange at NTHU

- Keep the goal of meeting the NTHU certificate program requirements “top of mind”
- Identify courses in 3F to help students prepare for the certificate program
- Curate a list of technical courses offered at NTHU that would be of interest to ECE students
- Help students to select courses for the balance of their program in 4th year



How to prepare to go on exchange at NTHU

To be well prepared for this exchange opportunity, U of T's ECE Department strongly recommends that students take the following kernel courses in 3F:

- **ECE335: Introduction to Electronic Devices**

and at least one of:

- **ECE331: Analog Electronics**
- **ECE334: Digital Electronics**



Curated list of courses (based on 2025-26)

The Department has reviewed the SETI course list and is recommending that students consider taking their three technical courses from this list:

- **Semiconductor Nanolithography**
- **Analysis and Design of Microwave Circuits (recommend taking ECE320 in 3F)**
- **Nanotechnology and its applications**
- **Micro and Nano Fabrication Technology**
- **Opto Electronics (recommend taking ECE318 in 3F)**
- **Silicone Processing Technology for Microelectronics**



What about 4th year?

- The six technical courses listed above are all eligible as technical elective transfer credits in Areas 1 and 3
- In general, students may select courses of interest that satisfy the SETI certificate program requirements and final approval will be provided by ECE's Associate Chair, Undergraduate
- When selecting courses to take at NTHU, guidance will also be provided by the Department on selection of 4th year courses to help ensure a coherent program



Next steps for interested 2nd year students

- Students interested in going on an academic exchange in 3S of 2026-27 need to complete an on-line application through U of T's Learning & Safety Abroad website by **April 8, 2026**
- U of T's Centre for International Experience (CIE) will notify students of the nomination decision and give instructions on how to apply to the host institution in June 2026
- Students will have 7 – 10 business days to accept or decline the nomination



Next steps continued...

Students who are accepting the nomination must:

- ✓ Complete the application for NTHU as soon as possible but no later than mid-October
 - ✓ Start working on U of T Safety Abroad requirements and complete them by Dec 2026 - Jan 2027
 - ✓ Obtain NTHU course approvals from U of T's ECE Associate Chair, Undergraduate
- As soon as an admission letter is received from NTHU, students will apply for a visa



Discussion and Q&A



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