

UO Knight Campus Graduate Internship Program: Materials Science Tracks Student Handbook

The Knight Campus Graduate Internship Program is part of the **Phil and Penny Knight Campus for Accelerating Scientific Impact**, an initiative designed to fast-track scientific discoveries into innovations, products, or cures to improve the quality of life for people in Oregon and throughout the world ([U](#)). The vision of the Knight Campus is to shorten the timeline between discovery and societal impact through world-class research, training, and entrepreneurship in a nimble scientific enterprise.

The Knight Campus formerly had two academic programs: a joint Bioengineering PhD Program with OSU and the Graduate Internship Program. The Graduate Internship Program, or Internship Program for short, has launched the careers of over 1000 students with Master of Science degrees in Chemistry, Physics, and Biology within five tracks. Due to the similar timelines and requirements, this handbook covers the materials science tracks within the Internship Program:

- Polymer Science
- Semiconductor & Photovoltaic Device Processing
- Optical Materials & Devices
- Molecular Sensors & Biotechnology

The Bioinformatics and Genomics Track has a separate handbook.

The intent of this handbook is to ensure students within the Internship Program have a clear understanding of program policies and expectations.

Program Overview

With a rich 23-year history, the mission of the Internship Program is to train students in the real-world knowledge and skills necessary to be successful both in Industry and the sector lab environment. We believe a master's degree program should both provide rigorous academic training and help students land a job and prepare for a successful career in science and engineering. The Internship Program begins summer term with accelerated coursework in one of 4 materials science tracks.

In the core courses, students learn the technical and professional skills necessary to solve problems in applied science with an emphasis on a particular industrial sector. In addition to core courses, students are required to take elective credits in their major.

Students also have access to coursework in professional development. Professional development topics include interviewing, networking and job hunting – skills that enable students to successfully land jobs and chart a path to a rewarding career in science.

Internships allow students to apply their professional skills in real time and take them to the next level. Internships are paid and last 9 months. Though internships are not guaranteed,

historically close to 99% of students complete internships.

Coursework Credits

There are **54** total credits required to complete a degree for each track – 24 coursework credits (the equivalent of six 4-credit classes) and 30 internship credits (10 credits per quarter for 3 quarters). Table 1 has a breakdown of overall credit requirements.

Students are required to demonstrate satisfactory academic progress in all core courses (*see GPA requirements*).

Table 1. Coursework requirements.

	Credit Breakdown
Core Course Credits (Graded)	16
Elective Credits (Graded)	8
Internship Credits (Pass/No Pass)	30
Total	54

Elective Courses

In addition to core courses, students have 8 elective course credits (graded) within the major to complete.

Professional Development

The program offers several opt-in activities to promote the professional development and visibility of its students to internship partners. These activities are available to students enrolled in *Professional Communication in Science* (CH610). The elective is Pass/No Pass. Opt-in activities may have additional requirements defined in the syllabus such as satisfactory course attendance, active participation and good standing with the Internship Program. Examples of opt-in activities include guest seminars, one-on-one professional development mentoring, inclusion meetings, mock interviews, networking events and virtual and in-person introductions to corporate partners.

Partner-facing events (i.e., in-person and virtual introductions) have 3 additional requirements:

- Good academic standing (≥ 3.00 GPA)
- No grades of “Incomplete”
- No infractions of the UO Student Conduct Code
<https://studentlife.uoregon.edu/conduct>
- Permission for program staff to serve as references via UO’s Student Reference Request Form: <https://registrar.uoregon.edu/files/pdf/StudentReferenceRequestForm.pdf>

If a student fails to meet any of these requirements but would like to be considered for future professional development activities, a plan detailing necessary remediation actions and timeline to meet professional conduct standards may be created with the program director and when necessary, additional staff or faculty. Upon successful completion of the remediation plan, a student may be eligible to participate in extracurricular professional development activities.

Internships

Students participating in the *Professional Communication in Science* elective and who are in good standing may submit resumes for consideration by partner companies and can network and interview with partners who are seeking interns. The program facilitates both virtual and in-person networking opportunities with corporate partners. Students may also seek internships outside the program's partner network. Track directors can provide guidance as to whether an outside opportunity will qualify for internship credit.

Internship start dates vary, as these are determined by the company. Winter term internships typically begin in January.

While interning, students typically enroll for **10 internship credits per term**. Students should consult with their track director if an internship starts midway through a term or if the student is employed less than 35 hours per week to ensure they enroll in the correct number of internship credits.

Internship Papers

To document successful progression of technical knowledge, either a research paper summarizing internship projects or a technical literature review relevant to the internship is submitted each term a student is registered for internship credit. Term paper requirements are provided by the instructor of record (typically the track director) for internship credits. Internship credits are taken Pass/No Pass. Failure to meet term paper requirements may lead to a "No Pass" for the term. Papers that describe work conducted during an internship may have to be approved by the company's legal department prior to submission. Students should be proactive in understanding the timeline for managerial approval and consult with the instructor if an issue arises.

Registration

To register for core courses and internship credits via DuckWeb, students will need course registration numbers (CRNs). CRNs for summer and fall courses and internship credits will be sent by email each term. Some courses may not be listed in the general course list for the university and cannot be found by searching the class list online. Instead, students should input the CRN and the information associated with the course will auto-populate.

Students must be registered by the end of the first week of classes each term to remain in good standing.

Tuition & Fees

Tuition for Core Courses, Internship Credits, Professional Development, and UO Electives

Tuition for core courses, internship credits, professional development, and UO electives that fulfill degree requirements will be offered at a rate of \$600/credit through Spring 2024. Tuition typically increases by 3% in the summer term. Credits offered through the Internship Program are the same rate for resident and non-resident students.

Tuition must be paid in full before a student can register for the following term. *Students must be registered before the term deadline set by the university to be in good standing with the program.* For a full list of registration and drop/add dates, refer to the academic calendars: <https://registrar.uoregon.edu/calendars/academic/five-year>.

Note: Students who have financial aid awards will not receive their awards until their registration is processed.

Fees

Students pay standard student fees when enrolled for *on-campus* courses. Students pay *reduced* fees for terms in which they are exclusively enrolled in *off-campus* courses (e.g., internship credits). Internship credits for internships hosted at the UO are required to pay on-campus fee rates.

Matriculation Fee: All new students are charged a one-time matriculation fee the term they enter the UO (currently \$490.70 - this is subject to change).

A description of the fees and the standard cost for each term can be found at: <https://registrar.uoregon.edu/tuition-fees/graduate>. Be sure to select *Graduate (Knight Campus Internship Program)* and *2023-24* from the dropdown menus to see the correct tuition/fees.

Note: When enrolled in off-campus credit, you will be billed the full fee amount and then credited the difference. You should see both charges in DuckWeb.

Financial Aid

For information about financial aid, please contact the aid office at <http://financialaid.uoregon.edu> or 1-800-760-6953 / 541-346-3221.

Safety

Safety should be thought of in relation to the self, colleagues, lab mates and equipment. A large part of the training in this program is how to be an effective scientist while preventing avoidable problems. Making technical mistakes is part of the learning process; however, students will be taught basic and advanced best practices over the course of the program to minimize mistakes.

The program includes extensive laboratory components. Each track has domain-specific tools and occupational hazards students should be aware of, in addition to safety practices. If a student feels uncomfortable or inadequately trained to handle an occupational hazard or lab task, the student should immediately consult with an instructor and/or teaching assistant for proper training.

Books

Books are loaned to students during summer term. Track directors will coordinate the expected return date. Please report loss or damage to the track director.

ID Cards

Students can request an ID card from UO Card Office in the student union. As of June 1, 2020, all photos must be submitted online. After submitting your photo, please monitor your email for confirmation that your photo has been accepted. Full and up to date information can be found at <https://emu.uoregon.edu/card>.

GPA Requirements

Students must have a cumulative GPA of 3.00 or above. Please note that some internships require a higher GPA.

Grades below a C- do not count for graduate credit but *are* used to calculate overall GPA. If a student's GPA drops below a 3.00 at any time during graduate study, or if a student accumulates more than 5 credits of N or F grades (regardless of GPA), it is considered unsatisfactory and the student may be disqualified, terminating the student's degree program.

Removal of Incompletes

The University has recently revised their policy on the grade of "Incomplete (I)".

"A grade of "I" (**Incomplete**) represents an agreement between an instructor and a student to extend the deadline for coursework completion. Incompletes shall be granted when the instructor determines that the student meets all the [criteria for incomplete]."

Be sure to read the University of Oregon policy: <https://registrar.uoregon.edu/current-students/incomplete-policy>

Student Conduct

The UO Student Conduct Code applies to all students in the program. Students will be asked to confirm they have read and understood the Student Conduct Code before the first week of classes. The full conduct code may be found at: <https://studentlife.uoregon.edu/conduct>.

Accessibility

The UO strives to create inclusive and accessible learning environments. Please notify a program staff member if there are aspects of the program design that result in accessibility-

related barriers to participation. For more information, please contact the Accessible Education Center in 360 Oregon Hall, (541) 346-1155 or uoaec@uoregon.edu.

Recording Restrictions

To protect privacy and freedom of expression, students may not record classes, meetings or events without advance written consent of the instructor, staff or classmate leading the class, meeting or event. If permissible, recordings may only be used by the student for study purposes and may not be distributed. If a student has received permission, other students in the session will be notified in advance. Failure to comply with this policy is considered a violation of the student conduct code and may result in disciplinary action.

Program Probationary Warnings and Dismissal

Students who fail to meet department, program, or university requirements, or fail to make satisfactory progress toward the MS degree, are subject to probationary warnings and/or dismissal.

In consultation with the Faculty Advisory Committee (FAC), program staff will establish whether a probationary warning or immediate dismissal is warranted. The FAC is a group of UO faculty who ensure program alignment with broader departmental and university goals and initiatives.

If a warning is issued, the student will be placed on probation and the FAC will establish actions required for the student to be re-instated to good standing. Failure to meet the necessary requirements outlined by the FAC within the established timeframe will result in dismissal from the program. Serious infractions may lead to immediate dismissal without going through a probationary period.

Advising

General course requirements and advising are provided by track directors (*other core staff may also serve as resources if necessary*):

- *Polymer Science, Casey Check*
- *Molecular Sensors & Biotechnology, Jess Lohrman*
- *Optical Materials & Devices, Fuding Lin*
- *Semiconductor & Photovoltaic Device Processing, Fuding Lin (interim director)*

Given the interdisciplinary nature of the material science tracks, if a student has interest in broadening their skill set to other disciplines, they are encouraged to reach out to that track director.

Graduation Requirements

To graduate, students must *APPLY to the Graduate School in the first two weeks of the term in which all required credits are completed*. The application and deadlines can be found on the graduate school website: <http://gradschool.uoregon.edu/>.

To ensure eligibility to graduate, please review the following graduate school requirements:

1. Continuous Enrollment Requirement.

Graduate students are required to be continuously enrolled for a minimum of 3 graduate credits until all requirements have been completed (excluding summer term).

For any term (except summer) in which a student is not enrolled for **UO credit**, a leave of absence request is required by the grad school: <https://gradschool.uoregon.edu/policies-procedures/leave>. For example, if a student enrolls at another university while not enrolled for internship credit.

2. Waiver of Enrollment in Term of Completion.

The UO requires registration in the term a degree is awarded. If a student is not enrolled at the UO in the term of completion, students should submit a *General Petition* with the grad school requesting a “waiver of enrollment in the term of completion,” and explain why they are not enrolled at the UO. There is a \$15 fee for the general petition (subject to change).

<http://gradschool.uoregon.edu/current-students/academic-forms>

3. Beware of the 7-year time-to-completion limit

The graduate school requires graduate students to complete their degree within seven years, beginning with the term of admission.

4. Degree Requirements

Degree requirements are based on the program, departmental and university requirements for the year the student enrolled in the Internship Program.

Notify Lynde Ritzow (lynde@uoregon.edu) that you have applied to graduate.

Graduation Ceremonies:

To participate in **graduation ceremonies**, notify:

Chemistry: Leah O’Brien, leaho@uoregon.edu

Physics: Judi McDonald, judimac@uoregon.edu

Students are advised to consult the graduate school website for a complete description of university requirements for the master’s degree: gradschool.uoregon.edu

Appendix 1. Course curriculum for the 2023 cohort of the Knight Campus Graduate Internship Program materials science tracks. Note that electives are not included.

Track	# Credits	Course #	Course Description	Term Offered
Semiconductor & Photovoltaic Device Processing	4	CH667M/PHYS667M	Semiconductor Device Physics	Summer 2023
	4	CH678M/PHYS678M	Semiconductor Processing & Characterization	Summer 2023
	4	CH610/PHYS610	Intro to Semiconductor Processing & Device Charact. Lab	Summer 2023
	2	CH610	Device Processing & Characterization Lab - I	Summer 2023
	2	CH610	Device Processing & Characterization Lab - II	Fall 2023
Molecular Sensors & Biotechnology	4	CH610	Chemical Analysis and Signal Transduction	Summer 2023
	4	CH610	Synthetic Methods in Chemical Biology	Summer 2023
	4	CH610	Chemical Biology	Fall 2023
	4	CH610	Molecular Sensors Immersion Lab - II	Fall 2023
Polymer Science	4	CH667	Polymers: Synthesis, Characterization, Processing	Summer 2023
	4	CH669	Polymer Thermal and Mechanical Characterization	Summer 2023
	4	CH668	Polymer Molecular and Rheological Characterization & Processing	Summer 2023
	4	CH610	Industrial Polymer Projects Lab - II	Fall 2023
Optical Materials and Devices	4	PHYS626	Physical Optics w/ Labs	Summer 2023
	4	PHYS627	Optical Materials and Devices	Summer 2023
	4	PHYS610	Advanced Projects Lab	Summer 2023
	2	PHYS610	Laser and Nonlinear Optics	Summer 2023
	2	PHYS610	Optical Modeling with OpticStudio	Fall 2023