

# Mechanical Engineering MS& PHD Program Handbook

# Welcome

Welcome to the Mechanical Engineering Department at the University of Nevada, Las Vegas. The MEG Department is committed to offer strong graduate academic curriculum in all mechanical engineering disciplines at both MS and Ph.D. The educational and research programs of the Department are directed by 19 full-time faculties. Eight of the 19 full-time faculties are Fellows of ASME and others have received various national and international recognition.

One of the advantages of being a Mechanical Engineer is the breadth of employment opportunities that are available upon graduation. The available equipment, excellence in instruction and an emphasis on quality of education will lead the student into positions in many sectors of today's technology.

Mechanical Engineering graduates from UNLV have gone on to rewarding careers with industry, utility companies, consulting engineers and local, state and federal agencies. The long-term outlook for employment of Mechanical Engineers appears to be excellent both regionally and throughout the country.

### Mission Statement(s)

It is the mission of the Department of Mechanical Engineering to prepare students for the lifelong practice of mechanical engineering and related engineering disciplines.

In addition, the department sustains an outstanding academic program, motivating the faculty to attain excellence in research by acquiring external funding and by incorporating students into their research programs.

### Purpose

The purpose of this handbook is to provide program specific information that is not found in the UNLV Graduate Catalog. Students are responsible for understanding and following the policies and procedures delineated in this document and the UNLV Graduate Catalog, as well as the NSHE Code, UNLV Bylaws, and the UNLV Student Conduct Code. Questions about policies should be directed to the Graduate College: valarie.burke@unlv.edu or GradAssociateDean@unlv.edu.

### **Department Graduate Faculty**

A current listing of the graduate faculty can be found in the UNLV Graduate Catalog. Faculty must hold either associate or full graduate faculty status to be involved in graduate education at UNLV. For up to date information regarding graduate faculty status in your department, visit the Graduate Faculty status web page.

## **Program Information**

Graduate Certificate in Nuclear Criticality Safety
Graduate Certificate in Nuclear Safeguards and Security

Master of Science in Aerospace Engineering - Aerospace Engineering

Subplan 1: Non-Thesis
Subplan 2: Thesis

Subplan 3: Integrated BS-MS

### Master of Science - Biomedical Engineering

Subplan 1: Non-Thesis

Subplan 2: Thesis

Subplan 3: Integrated BS-MS

### Master of Science - Materials and Nuclear Engineering

Subplan 1: Non-Thesis

Subplan 2: Thesis

Subplan 3: Integrated BS-MS

### Master of Science in Engineering - Mechanical Engineering

Subplan 1: Non-Thesis

Subplan 2: Thesis

Subplan 3: Integrated BS-MS

# Doctor of Philosophy - Mechanical Engineering

Subplan 1: Post-Master's

Subplan 2: Post-Bachelor's

### **Contact Information**

Mechanical Engineering

Department Chair

Brendan O'Toole, Ph.D., TBE-A 219, brendan.otoole@unlv.edu

Graduate Coordinator

Hui Zhao, Ph.D., SEB 2174, hui.zhao@unlv.edu

Department Main Office

TBE-A 211, jim.boyerjr@unlv.edu, 702-895-1331, 702-895-3936

# **Program Requirements**

Program requirements regarding <u>admission</u>, <u>coursework and culminating experience are found in the graduate catalog</u>.

### **Advisory Committee Guidelines**

A Doctoral Advisory Committee composed of at least five members of the UNLV graduate faculty is to be formed for the student. Three of these faculty members must be from the Department of Mechanical Engineering, the fourth from a relevant supporting field, and a fifth who will serve as the Graduate College Representative.

A thesis committee composed of at least four members of the UNLV graduate faculty is to be formed for the student. Three departmental members must be from the Department of Mechanical Engineering. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines.

### Degree Program Benchmarks

Qualifying exam: Written qualifying examination should be taken by the end of the second semester. They are usually offered in the second half of the semester. The exam is prepared and supervised by

the graduate program committee. Students are expected to pass all three sections to be eligible for Ph.D. candidates in the program. Qualifying exam can be repeated one time only.

Preliminary exam: Students must pass a preliminary exam with a written proposal for the dissertation research, followed by an oral defense of the proposal before the Doctoral Advisory Committee. The Preliminary Exam cannot be taken more than once per semester but may be repeated until passed.

The student is advanced to candidacy for the Ph.D. upon completion of all course work and this Preliminary Exam.

Dissertation Requirements: (1) The student must submit all required forms to the Graduate College and then apply for graduation up to two semesters prior to completing his/her degree requirements.

- (2) The student must submit and successfully defend his/her dissertation by the posted deadline. The defense must be advertised and is open to the public.
- (3) The student must submit his/her approved, properly formatted hard-copy dissertation to the Graduate College, and submit the approved electronic version to ProQuest by the posted deadline.

### **Program Timeline**

Four years for Ph.D. and two years for M.S. are recommended.

### Professional Code of Ethics/Discipline Guidelines

UNLV Graduate College policy regarding academic integrity can be found in the graduate catalog.

### Annual Review Procedures

Each winter break and early spring term, graduate students are **required** to complete the Graduate Student Individual Development Plan (IDP) form. The review covers the prior calendar year and assesses student progress, and it establishes reasonable goals for the year ahead. Reported student data is shared with students' graduate coordinators and advisors to foster opportunities for discussion about students' strengths and weaknesses, accomplishments and next requirements, and mentoring plans so that students know what they need to do in order to progress successfully through their programs in a timely manner. Students who are graduating are also required to complete the form in order to record their achievements since the data is also used to track metrics related to the annual productivity of all students. This survey will be sent by the Graduate College to the student's Rebelmail account. The review covers the prior calendar year and assesses student progress while setting goals for the year ahead.

### **Probation**

If a student fails to successfully progress in their degree program, their department/school will recommend that the student be placed on probation by the Graduate College. Students on probation may be dismissed/separated from their program for failing to successfully meet the conditions of their probation by the deadline provided. Please see the <u>Probation and Separation</u> section of the Graduate Catalog for more information.

# **Discipline Resources**

**Engineering Resources** 

# **University Resources**

### The Grad Academy: Innovative Leadership, Professional, and Career Development

The goal of the Professional Development Academy is to serve as a virtual resource providing support and many professional opportunities to UNLV graduate students. The Academy offers information about events and services such as graduate certificate programs, workshops, training sessions and career services. You can follow Academy activities via social media or look for regular updates on the website.

### Academic Success Center

The goal of the Academic Success Center is to help students do well academically and complete they studies on time. They offer or will refer you to such programs and resources as tutoring, advising, skills testing, career exploration and more. They guide students every step of the way to the many established resources created to ensure they complete their educational goals. Learn more about the programs and services the center currently offers.

### **Alumni Association**

With an alumni base 120,000 strong, the UNLV Alumni Association offers a variety of services and opportunities in support of alumni and their families. UNLV alumni are encouraged to support the values of higher learning through advocacy, involvement, and giving.

#### Commencement Office

Located in the UNLV Office of the Registrar, the commencement office is the last step in the graduation process. Please check with the commencement office for information on the commencement ceremony and your diploma; for all other information about graduate student degree completion and graduation, including thesis/dissertation requirements and doctoral hooding, please contact the Graduate College. It is the students' responsibility to ensure they apply for graduation on time and submit all required forms to the Graduate College. Questions regarding thesis/dissertation should be directed to the Graduate College Student Services Team and questions regarding required forms should be directed to the Graduate College RPC Team

### Office of Diversity Initiatives

The vision of the Office of Diversity Initiatives is to advocate, promote, and support the advancement of equity, inclusiveness, and empowerment of a continuously changing collegiate and global community. The mission of the Office of Diversity Initiatives is to provide leadership and support for UNLV's diversity mission: to nurture equity, diversity, and inclusiveness that promotes respect, support, and empowerment. This Office also handles UNLV Title IX questions, inquiries, and reporting.

### **Disability Resource Center (DRC)**

The DRC is committed to supporting students with disabilities at UNLV through the appropriate use of advocacy, accommodations, and supportive services to ensure access to campus courses, services, and activities. The DRC is the university-designated office that determines and facilitates reasonable accommodations in compliance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Graduate students with disabilities must disclose to the DRC in order to receive appropriate accommodations.

### Office of International Student and Scholars

International Students and Scholars (ISS) ensures compliance with both SEVIS (Student and Exchange Visitor Information System) and federal law, so that the university can continue to be authorized by the U.S. federal government to enroll international students; host and hire international scholars; assist and advise employment eligibility and authorization relating to international students and scholars, and visa, travel, and immigration issues; provide critical and specialized services to the international students and scholars of the UNLV community; and facilitate their transition to the campus and the U.S.

#### Jean Nidetch Women's Center

The Jean Nidetch Women's Center is committed to creating a supportive and inclusive environment for all genders through programming, services, and advocacy for the UNLV community. The Women's Center has informational resources, brochures, and flyers for a variety of on and off campus organizations to help empower and protect yourself, and learn about your options. They also provide free tampons, pads, and condoms.

#### The Intersection

The Intersection is a one-stop resource for UNLV's highly diverse student body — a comprehensive multicultural center grounded in the academic life of our students. As an intersecting campus resource, the Intersection helps ensure students, particularly first-generation and students of color, successfully navigate their academic careers. Here, all members of campus can discuss their differences, discover their similarities, and build a shared sense of belonging.

### **UNLV** Libraries

UNLV Libraries has always been more than books; they are about encouraging students and creating quality programs that elevate growth and learning. Please visit their website for important information about the services they offer to graduate students.

### Graduate & Professional Student Association (GPSA)

The Graduate & Professional Student Association serves all currently enrolled University of Nevada, Las Vegas graduate and professional students. The GPSA maintains the Graduate Student Commons located in the Lied Library room 2141 and Gateway Building PDAC Room. The facility a working office equipped with a copier, fax, flatbed scanners, color laser printer, office supplies, and computers with printers and a small kitchen area.

The GPSA is the graduate student governance body at UNLV; the GPSA Council consists of one graduate student representative from each graduate department, and they meet monthly. The GPSA also provides volunteer opportunities, sponsors social events, and supports graduate student research through the graduate research and travel grants program.

#### Office of Student Conduct

The Office of Student Conduct is a student-centered, service-oriented office located within the Division of Student Affairs. The Office of Student Conduct collaborates with the UNLV community to provide an inclusive system through enforcement of the *UNLV Student Code of Conduct* by:

- Promoting awareness of student rights and responsibilities;
- Establishing accountability for student choices;
- Creating opportunities for involvement in the process; and
- Striving to uphold the values and ethics that advance the common good.

#### Military and Veteran Services Center

The Military and Veteran Service Center is staffed with veterans and veteran education benefits- experienced staff to assist more than 1,800 veterans, dependents, active duty service members, National Guard members, and reservists attending UNLV. Their mission is to develop a welcoming, veteran-friendly campus environment that fosters academic and personal success.

### The Financial Aid & Scholarships Office

The Financial Aid & Scholarships Office supports higher-education access and persistence by providing financial aid to eligible students. The office partners with student organizations, the UNLV Foundation, the Graduate College, and other external constituents to provide financial aid learning opportunities and scholarship support for graduate students.

### **Writing Center**

This is a free service to UNLV students to help you with any writing project, from papers to creative writing, to resumes, and we can work with you at any stage of the writing process. The center can help you brainstorm, make an outline, work on your drafts, or just be a soundboard for your ideas. The center staff can assist you in person, or via the Online Writing Lab (OWL) page.

# **University Policies and Procedures**

Graduate students are responsible for knowing and acting in accordance with UNLV Policies and Procedures. To view the most commonly referenced campus policies and procedures, you can refer to the <a href="Graduate Student Handbook">Graduate Student Handbook</a>, and following websites:

- Academic Integrity
- Activation for Military Service
- Change of Address
- FERPA/Privacy Rights
- Health Insurance Mandatory
- Jean Clery Campus Safety and Security Report
- Proof of Immunization
- Policies and Procedures on the Protection of Research Subjects
- Rebelmail Policy
- Student Conduct Code
- Student Computer Use Policy
- <u>Title IX</u>

UNLV does not discriminate in its employment practices or in its educational programs or activities, including admissions, on the basis of sex/gender pursuant to Title IX, or on the basis of any other legally protected category as is set forth in NSHE Handbook Title 4, Chapter 8, Section 13. Reports of discriminatory misconduct, questions regarding Title IX, and/or concerns about noncompliance with Title IX or any other anti-discrimination laws or policies should be directed to UNLV's Title IX Coordinator Michelle Sposito.

The Title IX Coordinator can be reached through the online reporting form at <u>Title IX Reporting Form</u>, by email at <u>titleixcoordinator@unlv.edu</u>, by phone at (702) 895-4055, by mail at 4505 S. Maryland Parkway, Box 451062, Las Vegas, NV, 89154-1062, or in person at Frank and Estella Beam Hall (BEH), Room 555.

To ensure compliance with Graduate College policies and procedures, please review the relevant sections of the Graduate Catalog:

- Academic Calendar
- Academic Policies
- Admission and Registration Information
- Degree Progression Policies & Procedures

In addition, the **Graduate College website** contains additional information regarding policies and procedures.

Nothing in this handbook supersedes any NSHE, UNLV, or Graduate College policy.

# **Handbook Information**

Last revised	Revised by	Changes summary