

# Master of Science - Materials and Nuclear Engineering

2 Graduate Program Change 2022-23

## I. General Information

The faculty member originating this proposal is to complete sections I and II.

Before starting this form, please review graduate curriculum website on policies and processes: <https://www.unlv.edu/graduatecollege/curriculum>

Click "**validate and launch proposal**" **button below.** Once the pop-up window comes up and displays an error message, click on the "show me" button (on the pop-up). This will highlight in red the required fields of this form. Fill in **ONLY** the red (required) fields.

With all red fields completed, click on the "**validate and launch proposal**" **button** again to launch the proposal. The pop-up this time should not display an error, and will display instead a "**launch proposal**" **button.** Click on the "**launch proposal**" **button** to launch.

**After launch, please fill in all remaining fields in the form to reflect your intended changes, including edits to the schema section of this form (further explained below).**

Department (s) (if Dual or Interdisciplinary please add all departments):\*

Mechanical Engineering

Degree or Certificate Name:\* Master of Science - Materials and Nuclear Engineering

Degree Type:\*

Master of Science

Program Type:\*

Master's

## II. Program Changes

Proposed New CIP Code (if applicable):

Are you changing admission requirements?\*

Yes

No

Are you changing program learning objectives?  Yes  No

If yes, describe changes to learning objectives:

Are you changing course requirements?  Yes  No

Are you changing degree completion requirements?  Yes  No

Are you changing the culminating experience?  Yes (complete the culminating experience section below)  No

Other Changes (e.g. subplan titles,...):  Yes  No

If not a Dual itself, is this program also available as part of a Dual-Degree offering?  Yes  No

## Summary of Changes

**Provide a brief summary of proposed changes:**

We are adding an online subplan to this program to allow working professionals the opportunity to get a graduate degree.

**Provide a rationale for each proposed change:**

The department would like to establish a online subplan to encourage enrollment by professionals at the NNSS (Nevada Nuclear Security Site), Air Force bases in Nevada and at other laboratories and industry, local and nationwide. In particular, the NNSS management asked for opportunities for their employees to obtain advanced degrees in the nuclear field. The MSTs that operates the NNSS has educational benefits for employees paying tuition and providing time (the department has several students from NNSS currently in the nuclear engineering program). The main 'showstopper' problem was to balance the face-to-face graduate classes offered during the workweek and their job responsibilities, especially at the remote site locations (~80 – 100 miles from the campus). The department was even asked to arrange teaching classes on the site with the support from NNSS in the past. The online MSNE subprogram will address and resolve this challenge.

## Office of Online Education

Programs that are 100% online must contact the Office of Online Education (<https://www.unlv.edu/provost/online-education>).

Email: [elizabeth.barrie@unlv.edu](mailto:elizabeth.barrie@unlv.edu)

**What is the current delivery/mode of instruction for this program? \***

- 100% face-to-face courses
- Hybrid (some online courses; some face-to-face courses)
- 100% online courses

**Are you changing the delivery/mode of instruction? (select new mode):\***

- 100% face-to-face courses
- Hybrid (some online courses; some face-to-face courses)
- 100% online courses (contact office of online education)
- No Changes

## Required Additional Documents:

Please attach required documents by navigating to the “attach a file” icon at the right of this form.

Information and forms available at the [Office of the Vice Provost for Academic Programs](#) website.

**If changing to 100% online delivery, please attach the following:**

Assessment Plan - A new assessment plan will be required when adding an exclusively online mode of delivery to a degree and it must be approved by the [Office of Academic Assessment](#), [assessment@unlv.edu](mailto:assessment@unlv.edu),

Dean's memo of support

Teach Out Plan (available at the [Office of the Vice Provost for Academic Programs](#) website).

**If 100% Online, attach the required documents and mark the checkboxes:**

- Assessment Plan
- Dean's memo of support
- Teach Out Plan

## Office of Educational Compliance

Programs that lead to professional licensure or certification must contact the Office of Educational Compliance (<https://www.unlv.edu/provost/ed-compliance>).

Email: [leeann.fields@unlv.edu](mailto:leeann.fields@unlv.edu)

**With this change, does this program lead to professional licensure or certification?\***

- Yes (contact office of educational compliance)
- No

## SCHEMA SECTION

**Please edit the schema section after launching the proposal. To launch, please complete all other fields of this form and click "validate and launch" at the bottom. If an error message pops up, please click "show me" and fill in all red (missing) fields in the form and click "validate and launch" again until successfully launched.**

In this section, please use the instructions below to change the graduate catalog display of program requirements: descriptions, admissions, courses, degree completion, graduation, etc.

Please note that the new graduate catalog will display the exact information that you edit in this section.

### INSTRUCTIONS:

1. Click on the "View Curriculum Schema" icon at the bottom of the "Schema Section."
2. If you are only adjusting existing content, click on the respective Core you would like to edit, then make your edits and click on "Save" as you go. If you are deleting a subplan or courses, simply delete the respective Cores or courses and adjust the descriptive content accordingly.

If you are adding new subplans and/or adding or substituting courses, please see the steps below:

**Prior to following the steps below, please open in parallel a structurally similar program from the graduate catalog as a reference ([UNLV Graduate Catalog](#)). You will use this reference to review the sections of a program plan, and have direction on expected content.**

3. Click "Add Core" to create blank "Cores." Create as many Cores as you will need. If unsure, refer to other subplans already in this program or to a reference in the graduate catalog to understand how many Cores you need and their expected content.
4. Click on each Core and rename them following your needs or a catalog reference, clicking on "Save" as you go.
5. Add content to all of the cores by clicking within the field to be edited and clicking "Save" as you go. Please note that course sections require instructions of how the credits must be taken (e.g. "Complete x credits by completing all of the following courses," or "Complete x credits of advisor-approved courses," or "Complete 3 credits of course-x and 6 credits of course-z," etc.).
6. To add courses, click on the "View Curriculum Courses" tab at the top of the schema window below, then click on the "Import Course" button at the bottom of the "View Curriculum Courses" window. Click on the available import catalog (only one will be available), and on the import window, select "filter by prefix." (1) Search for your desired course prefix; (2) then click "search available curriculum; (3) then click on all courses that will be imported. Add courses to proposal by clicking, at the very bottom, on the "Add Courses to Proposal" button. Repeat this process as often as you need until all courses are added to the proposal.
7. For courses that do not exist yet at the time of this proposal: Add the courses into the description box of the respective course section in the following way: "PREFIX - NUMBER - Course name, (credits)."
8. Add the courses into their respective course section by clicking "add course" within each course section.

**QUESTIONS?** Step-by-step guides are available at the [Graduate Curriculum Website](#), and at any time please contact [gradcurriculum@unlv.edu](mailto:gradcurriculum@unlv.edu)

## Plan Description

The Master of Science degree is intended to provide the student with a solid background in either applied nuclear science and engineering, with an emphasis in used fuel management, criticality, or radiation detection, or material science and engineering, with an emphasis in materials performance. The program consists of two master's degree subplans: Materials Engineering and Nuclear Engineering.

The materials engineering subplan consists of a core curriculum in material science, metallurgy, and materials performance, which is to be augmented by advanced level classes in corrosion engineering, physical metallurgy, mechanical metallurgy, mechanics of materials, and nuclear materials.

The nuclear engineering subplan consists of a core curriculum in applied nuclear science and engineering, coupled with advanced classes in the student's sub discipline. The nuclear engineering subplan has an online option.

**For more information about your program including your graduate program handbook and learning outcomes please visit the [Degree Directory](#).**

## Plan Admission Requirements

### [Application deadlines](#)

Applications available on the [UNLV Graduate College website](#).

In addition to the general requirements for admission to the Graduate College, an applicant for the M.S. program must complete the following requirements:

Applicants must complete the on-line process in the Grad Rebel Gateway system.

Mechanical Engineering applicants must provide two additional items while completing the process in the Grad Rebel Gateway system:

A written statement of purpose indicating interests and objectives in working toward a M.S. degree.

Two letters of recommendation using the online recommendation system. There is no specified format.

Each letter should detail the potential of the applicant for success in this M.S. program.

The applicant must have a bachelor's degree in engineering or a closely related discipline. Admitted students with non-engineering backgrounds will be required to complete a set of courses that will assure successful completion of the M.S. specialization and qualify the

ensure successful completion of the final specialization and qualify the student to sit for the Fundamentals of Engineering (FE) exam. The

Graduate Program Committee or Graduate Coordinator will specify a list of required undergraduate courses that must be completed within the first year. These courses are in addition to those required for the graduate degree.

The applicant must submit an official copy of the Graduate Record Examination (GRE) test scores. The GRE university code for UNLV is 4861. The Mechanical Engineering Department code is 1502. The preferred score is at or above 70 percentile range in the quantitative reasoning section. The Graduate Program Committee can modify this requirement if necessary. The GRE requirement is waived for students participating in the Integrated BS-MS subplan.

The GPC will examine the applicant's academic record and will make the final determination of the applicant's admissibility to the M.S. program. In general, a minimum post-baccalaureate GPA of 3.00 on a 4.00 scale or equivalent is required for admission in addition to a GPA of 3.00 on a 4.00 scale or equivalent in all engineering courses.

All domestic and international applicants must review and follow the [Graduate College Admission and Registration Requirements](#).

The Integrated BS-MS degree program is designed to provide high-achieving UNLV Mechanical Engineering undergraduate students with the opportunity to take graduate courses that can count toward both the B.S. and M.S. ME degree programs at UNLV. This will hopefully encourage them to continue with a graduate degree by reducing the time needed for degree completion. Up to nine credits of approved graduate-level course work can be taken as technical electives for the grade of B or better during the senior year and those credits will be waived for the graduate degree. The GRE requirement is waived for students participating in the Integrated BS-MS subplan. The following conditions are needed to enroll in the Integrated BS-MS program:

A minimum of two semesters of full-time enrollment in B.S. of Mechanical Engineering program is required.

Applications are normally submitted with two semesters remaining in the senior year.

A minimum of 90 credits of course work applicable to the B.S. of Mechanical Engineering degree with a cumulative GPA of 3.3 or higher must be completed before beginning the joint degree program.

Student has to choose the thesis option.

*Students are accepted into a degree program as described in the Graduate Catalog. The faculty and corresponding sub-disciplines and sub-plans within the described programs are subject to change at any time.*

## Plan Requirements

See Subplan Requirements below.

[Subplan 1: Non-Thesis](#)

[Subplan 2: Thesis](#)

[Subplan 3: Integrated BS-MS](#)

Subplan 4: Nuclear Engineering - Online

## Subplan 1 Requirements: Non-Thesis

Total Credits Required: 30

## Course Requirements

### Required Courses - Credits: 9

Select one of the following specializations and complete three courses:

**[Before]** *Materials Engineering*

ME 622 - Nanomaterials for Energy Applications

ME 630 Corrosion Engineering	3
ME 646 Composite Materials	3
ME 695 Special Topics in Engineering	1-4
ME 732 Mechanical Metallurgy	3
ME 734 Fracture of Engineering Materials	3
ME 741 Energy and Variational Methods in Applied Mechanics I	3

**[Before]**

*Nuclear Engineering*

ME 655 Fundamentals of Nuclear Engineering	3
ME 706 Convective Heat Transfer	3
ME 754 Introduction to Nuclear Criticality Safety	3
ME 755 Nuclear Criticality Safety Engineering	3
ME 756 Monte Carlo Methods in Nuclear Engineering	3
ME 757 Radiation Monitoring and Safeguards Systems	3
ME 758 Accelerator Applications in Nuclear Engineering	3
ME 760 Waste Management And The Nuclear Fuel Cycle	3

fuel cycle	
ME 762 Nuclear Power Engineering	3
ME 763 Nuclear Reactor Analysis	3
[After]	
PHYS 631 Nuclear and Elementary Particle Physics	3
[After] Or	
RDCH 701 Applied Nuclear Physics	3

### Electives - Credits: 18

Complete 18 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

### Suggested Electives for Materials Engineering subplan

ME 650 Physical Metallurgy	3
ME 670 Experimental Mechanics of Materials	3
ME 742 Energy and Variational Methods in Applied Mechanics II	3

### Suggested Electives for Nuclear Engineering subplan

ME 615 Design of Thermal Systems	3
ME 702 Computational Fluid Dynamics	3
ME 705 Conduction Heat Transfer	3
ME 707 Radiation Heat Transfer	3
ME 708 Convective Boiling and Condensation	3
ME 711 Advanced Thermodynamics	3

### Design Project - Credits: 3

ME 796 Design Project in Mechanical Engineering	1 – 3
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### Degree Requirements

Requires 30 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses, and 15 credits must be in

engineering.

Students must make satisfactory progress toward degree completion as defined below::

File an approved degree program before the completion of nine credits of coursework.

Complete at least six credits of the approved program per calendar year.

Maintain a grade point average (GPA) of 3.00 on a 4.00 scale with no grades below C. Grades of C- or below are not acceptable.

Students must comply with Graduate College policy. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College.

## Graduation Requirements

The student must submit all required forms to the Graduate College as well as apply for graduation up to two semesters prior to completing their degree requirements.

Successfully complete a design project.

## Subplan 2 Requirements: Thesis

Total Credits Required: 30

## Course Requirements

### Required Courses - Credits: 9

Select one of the following specializations and complete three courses:

[Before]

*Materials Engineering*

ME 622 – Nanomaterials for Energy Application

<b>ME 630 Corrosion Engineering</b>	<b>3</b>
<b>ME 646 Composite Materials</b>	<b>3</b>
<b>ME 695 Special Topics in Engineering</b>	<b>1-4</b>
<b>ME 732 Mechanical Metallurgy</b>	<b>3</b>
<b>ME 734 Fracture of Engineering Materials</b>	<b>3</b>
<b>ME 741 Energy and Variational Methods in Applied Mechanics I</b>	<b>3</b>
[After]	
<i><b>Nuclear Engineering</b></i>	
<b>ME 655 Fundamentals of Nuclear Engineering</b>	<b>3</b>
<b>ME 706 Convective Heat Transfer</b>	<b>3</b>
<b>ME 754 Introduction to Nuclear Criticality Safety</b>	<b>3</b>
<b>ME 755 Nuclear Criticality Safety Engineering</b>	<b>3</b>
<b>ME 756 Monte Carlo Methods in Nuclear Engineering</b>	<b>3</b>
<b>ME 757 Radiation Monitoring and Safeguards Systems</b>	<b>3</b>
<b>ME 758 Accelerator Applications in Nuclear Engineering</b>	<b>3</b>
<b>ME 760 Waste Management And The Nuclear Fuel Cycle</b>	<b>3</b>
<b>ME 762 Nuclear Power Engineering</b>	<b>3</b>
<b>ME 763 Nuclear Reactor Analysis</b>	<b>3</b>
[After]	
<b>PHYS 631 Nuclear and Elementary Particle Physics</b>	<b>3</b>
[After] Or	
<b>RDCH 701 Applied Nuclear Physics</b>	<b>3</b>

### **Electives - Credits: 15**

Complete 15 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

### **Suggested Electives for Materials Engineering subplan**

<b>ME 650 Physical Metallurgy</b>	<b>3</b>
<b>ME 670 Experimental Mechanics of Materials</b>	<b>3</b>
<b>ME 742 Energy and Variational Methods in Applied Mechanics II</b>	<b>3</b>

### **Suggested Electives for Nuclear Engineering subplan**

<b>ME 615 Design of Thermal Systems</b>	<b>3</b>
<b>ME 702 Computational Fluid Dynamics</b>	<b>3</b>
<b>ME 705 Conduction Heat Transfer</b>	<b>3</b>
<b>ME 707 Radiation Heat Transfer</b>	<b>3</b>
<b>ME 708 Convective Boiling and Condensation</b>	<b>3</b>
<b>ME 711 Advanced Thermodynamics</b>	<b>3</b>

## **Thesis - Credits: 6**

<b>ME 797 Thesis in Mechanical Engineering</b>	<b>3 – 6</b>
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## **Degree Requirements**

Requires 24 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 30 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.

Students must make satisfactory progress toward degree completion as defined below:

File an approved degree program before the completion of nine credits of coursework.

Complete at least six credits of the approved program per calendar year.

Maintain a grade point average (GPA) of 3.00 on a 4.00 scale with no grades below C. Grades of C- or below are not acceptable.

Students must comply with Graduate College policy. If progress is not satisfactory, probation and separation may result, in accordance with the rules of the Graduate College.

The student must identify a Thesis Advisor within the first semester of joining the program. The student, in consultation with their Advisor, will form a Thesis Committee that includes at least four members:

One Thesis Advisor. A student may have two co-Advisors but they count as one committee member.

Two Mechanical Engineering Department faculty members.

One Graduate College representative. The student, in consultation with their Advisor, is responsible for inviting a committee member from within the university but outside the Mechanical Engineering Department. This person is responsible for ensuring consistency and

fairness throughout the UNLV graduate programs.

## Graduation Requirements

The student must submit all required forms to the Graduate College as well as apply for graduation up to two semesters prior to completing their degree requirements.

The student must submit and successfully defend their thesis by the posted deadline. The defense must be advertised and is open to the public.

After the thesis defense, the student must electronically submit a properly formatted pdf copy of their thesis to the Graduate College for format check. Once the thesis format has been approved by the Graduate College, the student will submit the approved electronic version to ProQuest. Deadlines for thesis defenses, format check submissions, and the final ProQuest submission can be found [here](#).

## Subplan 3 Requirements: Integrated BS-MS

Total Credits Required: 21-27

Students admitted into this subplan have taken 3, 6 or 9 credits of graduate level courses that were applied toward their B.S. degree in Mechanical Engineering at UNLV. These credits reduce the total needed to complete the M.S. degree.

## Course Requirements

### Required Courses - Credits: 9

Select one of the following specializations and complete three courses:

~~[Before]~~ *Materials Engineering*

ME 622 - Nanomaterials for Energy Applications

ME 630 Corrosion Engineering	3
ME 646 Composite Materials	3
ME 695 Special Topics in Engineering	1-4

<b>ME 732 Mechanical Metallurgy</b>	<b>3</b>
<b>ME 734 Fracture of Engineering Materials</b>	<b>3</b>
<b>ME 741 Energy and Variational Methods in Applied Mechanics I</b> [Before]	<b>3</b>
<i>Nuclear Engineering</i>	
<b>ME 655 Fundamentals of Nuclear Engineering</b>	<b>3</b>
<b>ME 754 Introduction to Nuclear Criticality Safety</b>	<b>3</b>
<b>ME 706 Convective Heat Transfer</b>	<b>3</b>
<b>ME 755 Nuclear Criticality Safety Engineering</b>	<b>3</b>
<b>ME 756 Monte Carlo Methods in Nuclear Engineering</b>	<b>3</b>
<b>ME 757 Radiation Monitoring and Safeguards Systems</b>	<b>3</b>
<b>ME 758 Accelerator Applications in Nuclear Engineering</b>	<b>3</b>
<b>ME 760 Waste Management And The Nuclear Fuel Cycle</b>	<b>3</b>
<b>ME 762 Nuclear Power Engineering</b>	<b>3</b>
<b>ME 763 Nuclear Reactor Analysis</b> [After]	<b>3</b>
<b>PHYS 631 Nuclear and Elementary Particle Physics</b> [After] Or	<b>3</b>
<b>RDCH 701 Applied Nuclear Physics</b>	<b>3</b>

### **Electives - Credits: 6-12**

Complete 6-12 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

### **Suggested Electives for Materials Engineering subplan**

<b>ME 615 Design of Thermal Systems</b>	<b>3</b>
<b>ME 650 Physical Metallurgy</b>	<b>3</b>
<b>ME 670 Experimental Mechanics of Materials</b>	<b>3</b>
<b>ME 742 Energy and Variational Methods in Applied Mechanics II</b>	<b>3</b>

### **Suggested Electives for Nuclear Engineering subplan**

<b>ME 615 Design of Thermal Systems</b>	<b>3</b>
<b>ME 702 Computational Fluid Dynamics</b>	<b>3</b>

<b>ME 705 Conduction Heat Transfer</b>	<b>3</b>
<b>ME 707 Radiation Heat Transfer</b>	<b>3</b>
<b>ME 708 Convective Boiling and Condensation</b>	<b>3</b>
<b>ME 711 Advanced Thermodynamics</b>	<b>3</b>

## **Thesis - Credits: 6**

<b>ME 797 Thesis in Mechanical Engineering</b>	<b>3 – 6</b>
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## **Degree Requirements**

Total credits required depends on the total number of approved graduate-level course work taken as technical electives (with a grade of B or better) during the senior year.

Requires 15-21 credits of approved graduate courses plus six credits of work associated with the master's level thesis, for a total of 21-27 credits. At least 15 credits must be earned from 700-level courses, and at least 15 credits must be in engineering. The final examination will include a defense of thesis.

Students must make satisfactory progress toward degree completion as defined below:

File an approved degree program before the completion of nine credits of coursework.

Complete at least six credits of the approved program per calendar year.

Maintain a grade point average (GPA) of 3.00 on a 4.00 scale with no grades below C. Grades of C- or below are not acceptable.

Only those courses in which a student received a grade of C or better may be used for graduate credit. Students must comply with Graduate College policy.

The student must identify a Thesis Advisor within the first semester of joining the program. The student, in consultation with their Advisor, will form a Thesis Committee that includes at least four members:

One Thesis Advisor. A student may have two co-Advisors but they count as one committee member.

Two Mechanical Engineering Department faculty members.

One Graduate College representative. The student, in consultation with their Advisor, is responsible for inviting a committee member from within the university but outside the Mechanical Engineering Department. This

outside the Mechanical Engineering Department. This

person is responsible for ensuring consistency and fairness throughout the UNLV graduate programs.

## Graduation Requirements

The student must submit all required forms to the Graduate College as well as apply for graduation up to two semesters prior to completing their degree requirements.

The student must submit and successfully defend their thesis by the posted deadline. The defense must be advertised and is open to the public.

After the thesis defense, the student must electronically submit a properly formatted pdf copy of their thesis to the Graduate College for format check. Once the thesis format has been approved by the Graduate College, the student will submit the approved electronic version to ProQuest. Deadlines for thesis defenses, format check submissions, and the final ProQuest submission can be found [here](#).

## Subplan 4 Requirements: Nuclear Engineering - Online

Total Credits Required: 30

## Course Requirements

### Required Courses – Credits: 21

Complete 21 credits from the list below:

<b>ME 655 Fundamentals of Nuclear Engineering</b>	<b>3</b>
<b>ME 754 Introduction to Nuclear Criticality Safety</b>	<b>3</b>
<b>ME 755 Nuclear Criticality Safety Engineering</b>	<b>3</b>
<b>ME 756 Monte Carlo Methods in Nuclear Engineering</b>	<b>3</b>
<b>ME 757 Radiation Monitoring and Safeguards Systems</b>	<b>3</b>

<b>ME 758 Accelerator Applications in Nuclear Engineering</b>	<b>3</b>
<b>ME 760 Waste Management And The Nuclear Fuel Cycle</b>	<b>3</b>
<b>[Before]ME 761 – Probabilistic Risk Assessment</b>	<b>3</b>
<b>ME 762 Nuclear Power Engineering</b>	<b>3</b>
<b>ME 763 Nuclear Reactor Analysis</b>	<b>3</b>

### **Elective Courses – Credits: 6**

Complete 6 credits of elective coursework from within the College of Engineering. Courses from outside the College of Engineering may be taken with advisor approval.

### **Design Project – Credits: 3**

<b>ME 796 Design Project in Mechanical Engineering</b>	<b>1 – 3</b>
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### **Degree Requirements**

Requires 30 credits of approved graduate courses. At least 18 credits must be earned from 700-level courses and 15 credits must be in engineering.

Students must make satisfactory progress toward degree completion as defined below:

File an approved degree program before the completion of nine credits of coursework.

Complete at least six credits of the approved program per calendar year.

Maintain a grade point average (GPA) of 3.00 on a 4.00 scale with no grades below C. Grades of C- or below are not acceptable.

Students must comply with Graduate College policy. If progress is not satisfactory, probation and separation may result, in accordance with the policies of the Graduate College.

Courses numbered below 600 do not count toward the credits required for the M.S. degree.

## Graduation Requirements

The student must submit all required forms to the Graduate College as well as apply for graduation up to two semesters prior to completing their degree requirements.

Successfully complete a design project.

## Plan Graduation Requirements

*Refer to your subplan for Graduation Requirements.*

[Subplan 1: Non-Thesis](#)

[Subplan 2: Thesis](#)

[Subplan 3: Integrated BS-MS](#)

*Subplan 4: Nuclear Engineering Online*

## Advising and Culminating Experience

With these changes, will students in this program need a Grad Advisory Committee (GAC) formed?

- Yes  
 No

If yes, please list the applicable subplans that will need a GAC:

With these changes, will students be assigned a faculty advisory prior to GAC formation?

- Yes  
 No

If yes, please list the applicable subplans that will need an advisor:

Comments:

For Master's program only: With these changes, does this

- Yes  
 No

program require a prospectus form?

If yes, please list applicable subplans:

With these changes, will the culminating experience be a course?  Yes  No

If yes, please provide course prefix, number and name:

With these changes, describe the culminating experience (requirements, if applicable-which subplans will need GACs, forms, etc.):

The [Degrees Directory](#) provides current and consistent degree information. Submission of this form indicates acknowledgment and understanding that every department is responsible creating and maintaining accurate and updated program information on the UNLV Degrees Directory.

If new courses are added as placeholders within this proposal, new courses must be created using a Course Create form simultaneously to the process of this proposal.

**Degrees Directory Program Entry:**  Check this box to acknowledge the above statement.

**Changes will be applicable to:**  Current Students  New Students  Both Current and New Students

**If applicable to current students, changes are:**  Mandatory  Optional

**If mandatory:**  If mandatory, I confirm that all students will be notified in writing of these changes as approved by the graduate college  Not Mandatory

**Effective Date:**

## READY TO SUBMIT?

After making all your intended changes, please follow these steps:

1. Finish the launch of your proposal by clicking the decisions icon  located to the right of the form. This will display a new decision/approval field on the top right.
2. Click on "approve", add an optional comment if necessary, and then click on the "Make My Decision" button at the bottom to move the proposal forward to the next step. You will see a notification indicating that the proposal has moved forward. You will not be able to edit after moving the proposal forward.
3. Please note that it is your responsibility as the proposer to see that the proposal is reviewed and receives all necessary approvals. Please be encouraged to reach out to reviewers on each step, if necessary.
4. You can check the status of the proposal by clicking on the workflow status icon  to verify that the proposal has gone to the next step.

The workflow status icon  will also show you the current step of the proposal at any given time, and who are the reviewers at that step.

QUESTIONS? contact [gradcurriculum@unlv.edu](mailto:gradcurriculum@unlv.edu)

### III. Department Vote Information

Note: This section is to be filled out by the Department Chair on behalf of the department committee.

(The role has been assigned to the corresponding person on this step. If incorrect, please notify [gradcurriculum@unlv.edu](mailto:gradcurriculum@unlv.edu)).

1. Review the proposal. Discuss and make appropriate revisions.
2. Fill in vote information in the fields below, along with the approval. If Dual or Interdisciplinary: add votes from all departments/colleges involved
3. Then approve/reject by clicking the decisions icon  located to the right of the form. This will display a new decision/approval field on the top right. Click on "approve", add an optional comment if necessary, and then click on the "Make My Decision" button at the bottom to move the proposal forward to the next step. You will see a notification indicating that the proposal has moved forward. You will not be able to edit after moving the proposal forward.

The workflow status icon  will also show you the current step of the proposal at any given time, and who are the reviewers at that step.

If there were any modifications to the proposal, please enter them in the comments box below:

**Comments:**

**Date faculty voted on proposal:** 10/22/2021

**Result of vote:** 19-0

**Manner of vote:** online

#### IV. College Vote Information

**Note:** This section is to be filled out by the Academic Associate Dean on behalf of the college/school committee.

(The role has been assigned to the corresponding person on this step. If incorrect, please notify [gradcurriculum@unlv.edu](mailto:gradcurriculum@unlv.edu)).

1. Review the proposal. Discuss and make appropriate revisions.
2. Fill in vote information in the fields below, along with the approval. If Dual or Interdisciplinary: add votes from all departments/colleges involved
3. Then approve/reject by clicking the decisions icon  located to the right of the form. This will display a new decision/approval field on the top right. Click on "approve", add an optional comment if necessary, and then click on the "Make My Decision" button at the bottom to move the proposal forward to the next step. You will see a notification indicating that the proposal has moved forward. You will not be able to edit after moving the proposal forward.

The workflow status icon  will also show you the current step of the proposal at any given time, and who are the reviewers at that step.

**Date faculty voted on proposal:** 12/10/21

**Result of vote:** 4/0/0

**Manner of vote:** online

#### V. Graduate College Use Only - Code Request Items

**Note:** This section is for graduate college use only.

**Academic Organization:**

**Academic Program Code:**

**Academic Plan Code:**

**Plan Description (30  
chars):**

**Transcript  
Description:**

**Subplan Code:**

**Subplan Description:**

**Subplan Type:**  Track  
 Concentration  
 Option/Dual  
 Embedded/Track

**Subplan on  
Transcript?**  YES  NO

**Effective Date and  
First Term Valid:**

**Length / Avg. Time to  
Degree:**

**CIP code and title:**

**Other Codes Needed:**

**Description /  
implementation field  
(do not edit)**

## Comments for Master of Science - Materials and Nuclear Engineering

<b>Curriculog</b>	3/2/2022 4:22 pm <a href="#">Reply</a>
Emily Lin has approved this proposal on Graduate College Dean.	
<b>Gregory Moody</b>	3/2/2022 1:33 pm <a href="#">Reply</a>
Assessment plan approved on Feb 9, 2022. Moves out of prior contingency approval from last meeting. 12-0 in support. WebEx meeting held Feb 1, 2022	
<b>Curriculog</b>	3/2/2022 1:33 pm <a href="#">Reply</a>
Gregory Moody has approved this proposal on Graduate Programs Committee.	
<b>Curriculog</b>	3/2/2022 1:14 pm <a href="#">Reply</a>
Graduate Curriculum has approved this proposal on Graduate Programs Committee.	
<b>Curriculog</b>	2/24/2022 11:11 am <a href="#">Reply</a>
System Administrator Graduate Curriculum has rejected a request for this proposal.	
<b>Gregory Moody</b>	2/2/2022 12:59 pm <a href="#">Reply</a>
Program requires these approvals before full approval is granted. 1. Assessment plan must be approved. 2. Office of online Education must approve entire program and with identify verification process of the program	
<b>Curriculog</b>	2/2/2022 12:59 pm <a href="#">Reply</a>
Gregory Moody has requested a hold on this proposal.	
<b>Curriculog</b>	12/13/2021 3:46 pm <a href="#">Reply</a>
Mohamed Trabia has approved this proposal on School/College Associate Dean/ Dean.	
<b>Melissa Morris</b>	12/12/2021 1:26 pm <a href="#">Reply</a>
approved via email vote on 12/10/21	
<b>Curriculog</b>	12/12/2021 1:26 pm <a href="#">Reply</a>
Melissa Morris has approved this proposal on School/College Committee.	

**Curriculog**

11/18/2021 5:59 pm [Reply](#)

Mechanical Chair has approved this proposal on Department Chair.

**Curriculog**

11/18/2021 2:58 pm [Reply](#)

Mechanical Graduate Coordinator has approved this proposal on Graduate Coordinator.

**Curriculog**

11/17/2021 11:49 am [Reply](#)

Graduate Curriculum has approved this proposal on Technical Review.

**Curriculog**

10/28/2021 3:49 pm [Reply](#)

Hui Zhao has approved this proposal on Originator.

**Curriculog**

10/28/2021 3:49 pm [Reply](#)

Hui Zhao has launched this proposal.

**Curriculog**

10/28/2021 3:37 pm [Reply](#)

Hui Zhao imported from the map 2022-2023 - Working Graduate Catalog into the following proposal fields: I. General Information: Department (s) (if Dual or Interdisciplinary please add all departments);, I. General Information: Degree or Certificate Name; , I. General Information: Degree Type; , I. General Information: Program Type; , II. Program Changes: Proposed Curriculum; , V. Graduate College Use Only - Code Request Items: Description / implementation field (do not edit).