

# ME - 729 - Advanced Robotics

2 Graduate Course 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.**

Department:\*

Mechanical Engineering

Current Prefix:\*

ME

Current Number:\* 729

Long Course Name:\* Advanced Robotics

Short Course Name  
25 chars. limit  
(leave blank if not  
changing course  
name):

Summary of  
Proposed Changes  
(please check boxes  
for each change):\*

- Prefix
- Course Number
- Name
- Description
- Credits/Grading
- PreReqs/CoReqs
- Instructional Mode
- Cross-listing / Combination

Other changes (e.g. Service Learning, Fees, ...)

**Describe the changes and the rationale for each change:\***

Change the prerequisite from "graduate status or consent of instructor" to "B+ or higher in ME 425/625 or consent of instructor".

Students don't have necessary backgrounds in the topics of ME 729 without taking ME 425/625 Robotics. By taking ME 425/625, students can accelerate learning in ME 729. ME 425/625 is offered in Fall semesters and ME 729 is offered in Spring semesters. So this ensures annual ME 729 offering.

**Effective Term and Year:\***

Fall 2022

## Changing the Catalog Description:

avoid the use of the words *student*, *course*, and *covers*.

incomplete sentences are ok.

avoid repeating the course title.

use of an active voice, e.g. explores, investigates,...

50 words limit.

**Catalog Description 50 words limit (read guidelines above):\***

In-depth study of advanced automation concepts and robotic manipulators. Topics including 3-D kinematics, trajectory generation, compliance analysis, dynamic control of robotics along with concept of assembly operations and machine vision.

**Is this course a culminating experience?\***

Yes  No

**If Yes, to which programs?**

## IMPACT REPORT

**Run an Impact Report** by clicking on "run impact report" at the top of this form.

Copy & Paste the entire impact report into the box below.

Please comment on the results of the impact report in the comments box below.

Impact Report (copy and paste here):\*

# Impact Report for ME 729

Source: 2022-2023 - Working Graduate Catalog	
Programs	Master of Science in Aerospace Engineering
	Master of Science in Engineering - Mechanical Engineering

Comments on Impact Report (or add "no impact" if applicable):\*

No impact.

## Program Changes Needed?

If program changes are needed as a result of this course change, a **separate program change proposal must be submitted.**

Please describe below your plan for program changes related to this proposal.

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

Please describe your plan for program changes, if any, as a result of this proposed course change:\*

N/A

## CROSS-LISTING OR COMBINING COURSES

300- or 400-level courses may be cross-listed with 500-level courses; 400-level courses may also be cross-listed to 600-level courses. Courses that are at the 700 level and above may not be cross-listed with undergraduate courses.

Select one of the options:\*

- Same As= e.g. Undergraduate: same content and same career (UG/UG). Graduate: Same/similar course content and same career (Grad/Grad)
- Cross-listing= Cross-listed courses contain the same or similar content and may be in different programs (e.g. WMST 621 & SOC 621) or different careers (e.g. BIOL 467 & BIOL 667 or PSC 722 & PHIL 728)
- Not Cross-Listed or Same As

List cross-listing courses (or type "none"):

none

## CROSS-LISTING RATIONALE

Please answer the following questions in the "rationale" field below:

What aspect of graduate preparation is met via this course that goes beyond the undergraduate program?

What common aspects are offered in the cross-listings and what grad level pieces are not?

What would be beneficial in offering the cross-listed courses from a graduate education perspective?

Cross-listing or  
Combining  
Rationale:

## Service Learning Designation

Are you adding a  
Service-Learning  
designation to this  
course?\*

Yes  No

### If the Service-Learning designation is being added to this course:

An accessible syllabus in Word or PDF format must accompany this form.

Graduate syllabi must meet the minimum criteria as required by the Provost's office (See Semester Memo under Executive Vice President and Provost Policies and Forms <https://www.unlv.edu/policies/current-policies>). Graduate courses that are linked to undergraduate courses (300/500 and 400/600 level joint courses) must clearly state in the syllabus how the class experience and expectations are different for graduate students, what additional requirements students enrolled in the graduate level course must fulfill, and how the grading scale will be applied to graduate students.

Please attach a current accessible syllabus by navigating to the "attach a file" icon at the right of this form.

Information about Service-Learning is available [here](#). Faculty can visit the [faculty Service-Learning page](#) as well as the [UNLV Guide for Service Learning](#) for additional information.

If adding Service-  
Learning  
designation, an  
accessible syllabus  
is attached:

Attached

## II. Course Change Information

### Prefix and Number Change

Current Prefix

and/or Number:

New Prefix and/or  
Number:

### Credit change

Fixed/Variable  
Credits:  Fixed  Variable

If fixed, enter number of credits. If variable, enter minimum and maximum credits (E.g., 1-3).

Number of Credits:

Course Repeatability

Can students repeat  
this course?  Yes  No

If yes, insert  
maximum credits  
students can earn  
(blank=unlimited):

### Grading Change

Grading System:  Letter Grade  
 S/U  
 S/F (will count towards GPA)  
 S/X/F for Thesis/Dissertation

Does this course  
have any non-credit  
components?  Yes  No

If yes, indicate  
component(s):  Clinical  
 Discussion  
 Field Studies  
 Independent Study  
 Internship  
 Laboratory  
 Lecture  
 Practicum  
 Research  
 Seminar  
 Supervision  
 Thesis Research  
 Dissertation Research

### Requisite Change (if any)

Graduate standing is the default prerequisite for all graduate-level courses.

**Prerequisites:** B+ or higher in ME 425/625 or consent of instructor

**Corequisites -  
course(s) that must  
be taken  
concurrently:**

**Is this course  
change connected to  
differential fees?\***  Yes  
 No

**If yes, explain:**

**Indicate the  
instructional modes  
that should be  
available for  
scheduling:**

- In Person Supplemental Web
- Field Study
- Hybrid
- Independent Study
- Web-based
- Web-based w/ on/off campus meeting
- Other

**If other instructional  
mode, please  
describe and  
explain:**

### "Notes" information

Previous catalogs offered a field called "notes" with some course information. This "notes" section is being eliminated. Any information in that section will not be displayed in future catalogs.

**Notes:**

**Acknowledgement:\***  I acknowledge that notes will not appear in the new catalog

## III. Evaluation of Library Resources

Indicate library resources that will be needed as a result of changes to this course (if applicable).

**Will this course**  Yes  No

change require  
changes to library  
resources?\*

Core Journals:

Core Books:

Electronic  
Resources:



**\*This section is completed by the librarian\***


Level of support the  
Library can provide:

Library Comments:

## 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)


## IV. 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.

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:** approved

**Result of vote (Number of yes/no/abstention votes):** 13 (yes)-0 (no)


**Manner of vote (online, in-person, etc.):** remote meeting


## V. 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.
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:** 9/21

**Result of vote (Number of yes/no/abstention votes):** 4-0

**Manner of vote (online, in-person, etc.):** online

### VI. Graduate College and Registrar Use Only

**PS Processing Notes:** Remove prereq descriptions in the MyUNLV catalog description. Will need to build a new ERG code (00698 is attached to 25 other courses).

**PS Processing Date:**

**Initials:**

**Aalog Processing Notes:**

**Aalog Processing Date:**

**Initials:**

## Comments for ME - 729 - Advanced Robotics

<b>Curriculog</b>	10/19/2021 4:52 pm <a href="#">Reply</a>
James Navalta has approved this proposal on behalf of Graduate Course Review Committee. See <a href="#">Graduate Course Review Committee 10-13-2021</a> for more information.	
<b>Curriculog</b>	9/20/2021 9:51 am <a href="#">Reply</a>
Mohamed Trabia has approved this proposal on School/College Associate Dean/ Dean.	
<b>Curriculog</b>	9/17/2021 9:14 am <a href="#">Reply</a>
Melissa Morris has approved this proposal on School/College Committee.	
<b>Curriculog</b>	8/31/2021 9:13 am <a href="#">Reply</a>
Mechanical Chair has approved this proposal on Department Chair.	
<b>Curriculog</b>	8/30/2021 2:49 pm <a href="#">Reply</a>
Mechanical Graduate Coordinator has approved this proposal on Graduate Coordinator.	
<b>Curriculog</b>	8/30/2021 9:26 am <a href="#">Reply</a>
Graduate Curriculum has approved this proposal on Technical Review.	
<b>Curriculog</b>	8/27/2021 12:06 pm <a href="#">Reply</a>
Hui Zhao has approved this proposal on Originator.	
<b>Curriculog</b>	8/27/2021 12:04 pm <a href="#">Reply</a>
Hui Zhao has launched this proposal.	
<b>Curriculog</b>	8/27/2021 11:46 am <a href="#">Reply</a>
Hui Zhao imported from the map 2022-2023 - Working Graduate Catalog into the following proposal fields: I.General Information: Department;, I.General Information: Current Prefix;, I.General Information: Current Number;, I.General Information: Long Course Name;, I.General Information: Catalog Description 50 words limit (read guidelines above);, II. Course Change Information: Prerequisites;, II. Course Change Information: Corequisites - course(s) that must be taken concurrently;, II. Course Change Information: Notes:.	