

Engineering – Mechatronic (B.S.)

Code: BS-ENGMCT

Time Period: Continuous

Form E – Revise Program/Degree/Major/Minor

1 Today's Date:

09/14/2026

2 Your Email:

bbernard@highpoint.edu

3 Please list the appropriate school to oversee this proposal

Engineering

4 When should this proposal take effect?

Please input Semester and Year. E.g. Fall 2027

Fall 2027

5 Please select the revision type (select all that apply)

☐

Program

☐

Degree

☒

Major

☐

Minor

6 Please select which revision you are requesting:

☐

Total Credit Hours

☒

Required & Elective Courses

☒

Learning Outcomes

☐

Other

7 Please provide a summary of the proposed revision. (Suggested word count is 200 words)

1. Remove MME1010 Engineering Graphics as a required course
2. Change from Required "MME1005 Introduction to Engineering Design" to Required "MME1005 Engineering Design I or ECE1012 Introduction to Engineering Design and CAD/CAM". (MME1005 has a separate proposal to have its name changed)
3. Fix Typo in Bulletin. Add MME2014 as a required course (Currently called Engineering Ethics, being renamed to Ethical Systems Thinking).
4. Change from Required MTH2150 to Required MTH 2410.
5. Remove Required MME2300 Strength of Materials and CSC 4210 Operating Systems
6. Add Required CSC 2710 Advanced Data Structures and Algorithm Development and CSC 3710 Internet of Things

8 Please describe the rationale for the requested revision:

1. Previously, MME freshman took 4 courses worth 3cr, 2cr, 3cr, and 2cr. These will be consolidated into 3 courses of 4cr, 4cr, and 2cr. MME1010 Engineering Graphics is the course being removed from required course list. Content is not being removed, just merged into MME1005 and MME1015 which will have their credit hours adjusted up to 4cr. Total credit hours for the degree will not change. It is administratively difficult to arrange student schedules and faculty schedules with courses worth 3cr, 2cr, 3cr, 2cr, when nearly all other university courses are 4cr. Shifting to 2 standard 4cr courses plus a 2cr course (which can be added to any normal 16cr course load to make an acceptable 18cr) is easier for students and faculty. The content is mostly the same, just rearranged and slightly modernized, so pedagogically there is also improvement.
2. Allowing students to take ECE1012 instead of MME1005 makes it easier for an undecided student who starts in Electrical Engineering to change majors to Mechatronics Engineering without having to repeat this introductory course in the new department.
3. MME2014 is already required and shows up in Student Planning as required, but is not listed as required in the Undergraduate Bulletin. Adding this requirement to the bulletin is simply a typo fix since it should have already been listed.
4. Math department is phasing out MTH2150 Math Methods for Engineers II, so we swap this requirement to its replacement MTH2410 Calculus III.
5. The degree already requires a large number of credits. To add 2 new priority courses, 2 others must be removed to make room. These two courses are the lowest priority courses in the current degree plan. They aren't bad courses, just others are more important.
6. CSC 3710 Internet of Things is a perfect culminating course for a Mechatronics degree that is modern and interdisciplinary. CSC 2710 is a required prerequisite course.

There is no change to number of credits in the degree.

9 Is there any additional information you would like to share with the Registrar's Office?

no

10 Change in Required & Elective Courses (Required)

Required Course Prefix and Number

MME 1010 - Remove

Is this required course new or existing?

Existing

Required Course Prefix and Number

MME 2014 - This is already required, just adding to bulletin to fix typo

Is this required course new or existing?

Existing

Required Course Prefix and Number

MTH2410 (replaces MTH2150)

Is this required course new or existing?

Required Course Prefix and Number

CSC 2710 (replaces MME2300)

Is this required course new or existing?

Existing

Required Course Prefix and Number

CSC 3710 (replaces CSC 4210)

Is this required course new or existing?

Existing

11 Change in Required & Elective Courses (Elective)

Elective Course Prefix and Number

ECE1012 - add elective (MME1005 or ECE1012)

Is this elective course new or existing?

Existing

Elective Course Prefix and Number

MME1005 - change from required to elective (MME1005 or ECE1012)

Is this elective course new or existing?

- 12 Please upload a file showing the current course requirements (preferably from the Undergraduate Bulletin)

To upload, please select the *add a new document* link to upload your files. Once uploaded, please select the files within the dropdown menu.

[Mechatronics-CurrentRequirements.pdf](#)

- 13 Please list the current program learning outcomes:

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. communicate effectively with a range of audiences.
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.

- 14 Please list the revised program learning outcomes:

1. identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

3. communicate effectively with a range of audiences.
4. recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. acquire and apply new knowledge as needed, using appropriate learning strategies.
8. concurrently develop and integrate hardware and software components to create practical value in mechatronic systems.

15 Describe the rationale for revising the program learning outcomes:

Previously, all engineering majors have the same 7 SLOs. These are required by our external accreditor ABET. We were told, that for SACS-COC reasons, we are now required to add an 8th SLO so that each major will not have identical SLOs, they must each be distinct. If we must add an SLO, 'concurrently develop hardware and software' will complement the others.

16 Does this revision affect other programs / degrees / majors / minors? If so, which ones?

no

17 List any academic divisions, University officers, or other stakeholders are involved in, or affected by, this proposal?

n/a

18 Please attach documentation showing support from key stakeholders, if any.

To upload, please select the *add a new document* link to upload your files. Once uploaded, please select the files within the dropdown menu.

No document was selected.

- 19 Does this revision require a transition plan? If yes, please detail the transition plan below.

no

- 20 Are there any revisions to the assessment strategy of the program / degree / major / minor? If so, please detail the revisions to the assessment strategy below.

The department began assessing the 8th SLO in 2025-2026 in preparation for the SACS visit. This change will just update the undergraduate bulletin to the SLOs already being assessed in practice. No additional changes to assessment strategy required.

- 21 Please attach any final supporting documents for this proposed revision.

To upload, please select the *add a new document* link to upload your files. Once uploaded, please select the files within the dropdown menu.

No document was selected.

Department Chair Feedback

- 1 Feedback/Comments
Please provide any feedback or comments for the proposer.

- 2 Today's Date:

09/15/2026

1 What is your decision regarding this Course Revision form? (Please select a radial button below and also choose the corresponding workflow action on the bottom of this form)

- ☐ Inter-Collegiate : General Education
- ☐ Inter-Collegiate : Honors Council
- ☐ Inter-Collegiate : Non-General Education
- ☐ Inter-Collegiate : Study Abroad
- ☐ Inter-Collegiate : Service Learning
- ☒ Intra-Collegiate
- ☐ Small Change

2 Feedback/Comments

Please provide any feedback or comments for the proposer.

3 Today's Date:

09/15/2026

Intra-Collegiate : School EPC Feedback (FOR CHAIR ONLY)

1 **COMMITTEE MEMBERS:** Please review the form. Once your review is complete, click "Continue Later" at the bottom of the page or "Exit" at the top right of the screen. Do not enter comments or submit the form.

CHAIR: At the committee meeting, present this form and enter the committee's comments into the comment box below, then click "Submit."

[1] Discussion was had regarding the credit hour adjustments/totals (e.g. 3+2+3+2 -> 4+4+2). Supplementary information provided by one committee member was able to resolve the question/concern.

[2] There was some confusion with the formatting of the form itself (items #10 and #11 "Required" vs "Elective" changes with regard to the addition of elective ECE 1012). After some discussion, we believe we understand the intended meaning (consistent with the context provided by the proposer).

[3] A question/concern was raised about removing CSC 4210 OS from mechatronics and adding CSC 2710 Algo and CSC 3710 IoT. After some additional consultation with CS faculty, the question/concern was resolved.

2 Today's Date:

09/29/2026