EPC 14-Day Clock Memo

TO: All Faculty

FROM: Educational Policies Committee SUBJECT: Notice of Curriculum Changes

DATE: November 10, 2025

The 14-day review period begins November 10, 2025 and ends November 24, 2025

This notice of Curriculum Changes is published as required by the EPC Manual, which is located in the Faculty Handbook. The following paragraph may be found in Section III, Part VI, Section 3, "Procedures Governing Revision of Curriculum and Degree Requirements":

F: Faculty members must submit objections to proposals in writing to the Chair of EPC via facgov@plu.edu within 14 days from the date listed on the 14-Day Notice of Curriculum Changes distributed by the EPC. Objections received within this 14-day period will suspend approval, pending resolution of the objections. In the event a dispute cannot be resolved, EPC will make its recommendation to the faculty for action at the next regular faculty meeting.

Complete copies of the proposals may be obtained from the Provost's Office or from Erik Hammerstrom, Chair of the Educational Policies Committee for the 2025-26 academic year.

Curriculum Changes for Review – Summary

- Earth Science & Environmental Studies new degree major*
- **Physics** change course number, title, description; delete course; change prerequisite; add pre/co-requisite

Curriculum Changes for Information Only – Summary

- Business catalog editorial change
- **History –** add Core Element to special topic course correction
- International Honors Program add Core Element to existing course

^{*}Type 3 proposal requiring a vote at Faculty Assembly

Curriculum Changes for Review

Deletions are indicated by blue strikethrough | Additions are indicated in blue bold For conciseness, courses and catalog language sections that are not being changed, are not listed.

EARTH SCIENCE & ENVIRONMENTAL STUDIES

Fall 2026

Type 3 – new degree major*

*Type 3 proposal requiring a vote at Faculty Assembly

Link to BS – Earth and Environmental Science Major

Catalog

Earth Science & Environmental Studies

The major and minor in Earth Science focus on the scientific study of the processes that shape the earth. The program offers courses that explore earth materials and what they can tell us about past climates, tectonic activity, and mountain building. We also study natural hazards and other processes that shape earth's surface and how they affect human societies. The major and minor in Environmental Studies examines the complex relationships between humans and the environment by exploring multiple disciplinary perspectives through elective courses from the Humanities, Natural Sciences, and Social Sciences. A required course in Environmental Justice critically interprets values and assumptions that structure communities and their relationships to the earth's ecosystem with special attention to the history of colonialism and capitalism. In ENVT 350: Environmental Methods of Investigation, students study and apply diverse disciplinary frameworks and methodologies toward an integrated understanding of the local Chambers-Clover Creek Watershed.

Earth Science and Environmental Studies explore how humans interact with Earth. The minor and BA major in Earth Science focuses on the scientific processes shaping our planet, including past climates, tectonic activity, mountain building, and natural hazards. The minor and BA major in Environmental Studies examines human-environment relationships through diverse perspectives, including humanities, natural sciences, social sciences, and environmental justice. Students also learn investigation methods by studying the Chambers-Clover Creek Watershed. The joint Earth and Environmental Science BS major offers robust natural science training while integrating humanities, social sciences, and environmental justice, with students choosing an Earth Science or Environmental Science concentration.

Bachelor of Science Degree

Major in Earth and Environmental Science

76-77 semester hours in Foundation courses and subsequent requirements associated with selection of a concentration in either Earth Science or Environmental Science, completed with a grade of C- or higher and with a cumulative GPA of 2.00 or higher in those courses.

Foundation Courses

 Multidisciplinary Course in Earth and Environmental Science – 4 semester hours

By examining the broad dimensions of environmental studies, these courses present various perspectives that highlight the complex relationships between people and the environment and that transcend the boundaries of any particular discipline. Students select ONE of the following multidisciplinary courses that anchor their understanding of environmental issues.

- ECON 101: Principles of Microeconomics (4)
- ESCI 104: Conservation of Natural Resources (4)
- ESCI 109: Geology of Energy (4)
- RELI 239: Environment and Culture (4)
- 2. Disciplinary Breadth in Earth and Environmental Science

Each course explores the key content, ways of inquiry, conceptual framework, and modes of communication of the discipline. Students take courses from each of three areas of study that provide an in-depth exposure to environmental issues within a discipline.

A. The Environment and Science – 28 semester hours

These courses emphasize the understanding of scientific knowledge that underpins environmental issues. The interpretation and presentation of data along with concepts of science are stressed.

Students select ONE of the following mathematical courses that prepare them for the quantitative nature of the field.

- MATH 145: Statistics for Biologists (4)
- MATH 151: Calculus I (4)
- STAT 231: Introductory Statistics (4)

- STAT 232: Introductory Statistics for Psychology Majors, Pre-req: PSYC 101 (4)
- MATH/STAT 242: Introduction to Mathematical Statistics, Pre-req: MATH 151 (4)
- SOCI 301: Quantitative Research Methods, Pre-req: SOCI 101 or CRIM 102 (4)

Students must complete 24 semester hours from the following introductory sequences:

- BIOL 225: Molecules, Cells, and Organisms (4)
- BIOL 226: Genes, Evolution, Diversity, and Ecology (4)
- CHEM 115: General Chemistry I (4)
- CHEM 116: General Chemistry II (4)
- ONE course from: ESCI 102, 103, 104, 106, 107, or 109 (4)
- ESCI 201: Geologic Principles (4)
- PHYS 125/135 (5) or PHYS 153/163 (5)
- PHYS 126/136 (5) or PHYS 154/164 (5)
- DATA 133: Introduction to Data Science I (4)
- DATA 233: Introduction to Data Science II (4)

Earth Science Concentration must complete ESCI 201.

- B. The Environment and Society 4 semester hours
 These courses focus on the understanding of the institutions within which environmental decisions are made and investigate the implementation and implications of environmental decisions. They also consider how human communities have shaped and been shaped by their environment and how these relationships have changed over time. Students select ONE course from the following:
 - ANTH 368: Edible Landscapes, The Foraging Spectrum (4)
 - ECON 311: Natural Resources Economics, Pre-reg: ECON 101 (4)
 - ECON 313: Environmental Economics, Pre-reg: ECON 101 (4)
 - HIST 351: History of the Western and Pacific Northwest U.S., Pre-req: Sophomore status (4)
 - HIST 370: Environmental History of the US, Pre-req: Sophomore status (4)
 - POLS 346: Environmental Politics and Policy (4)

C. The Environment and Sensibility – 4 semester hours

These courses examine the ways in which nature shapes and is shaped by human

consciousness and perception. The courses critically interpret the values and assumptions that structure human communities and their relationships with the earth's ecosystems. Students select ONE course from the following:

- ENGL 234: Environmental Literature (4)
- ENGL 394: Studies in Literature and the Environment (4)
- PHIL 226: Environmental Ethics (4)
- PHIL 327: Environmental Philosophy (4)
- RELI 236: Native American Religious Traditions (4)

3. Environmental Justice – 4 semester hours

These courses examine intersections between environmental degradation and structural discrimination and how Indigenous and/or minoritized communities live in and experience these intersections. The courses critically interpret values and assumptions that structure human communities and their relationships to the earth's ecosystem with special attention to the history of colonialism and capitalism, questions of racism, sexism, xenophobia, and/or speciesism, the exclusions of minoritized communities from environmentalist movements and the survivance and resistance of such communities at these intersections. Students select ONE course from the following:

- NAIS 244: Environmental Justice and Indigenous People (4)
- RELI 365: Climate Justice (4)
- RELI 397: Indigenous Religions and Cultures of the Pacific Northwest (4)

A. Interdisciplinary Advanced Courses in Earth and Environmental Science – 4 semester hours

Each student will complete synthesis courses that integrate methods and content of various academic perspectives to develop approaches to complex environmental challenges. The courses serve to raise questions, create products, or produce explanations that cannot be addressed within the framework of a particular discipline.

• ESCI/ENVT 499A/B: Capstone: Senior Project (4)

Concentrations - must complete one of Earth Science or Environmental Science

Earth Science Concentration

29 semester hours beyond the Foundation courses (see listing above)

- ESCI 401 (1)
- Approved Field Experience OR ENVT 350: Environmental Methods of Investigation (4)
- 24 semester hours of electives from the list below. At least 16 hours must be from ESCI
 - BIOL 352: Comparative Anatomy (4)
 - BIOL 354: Natural History of Vertebrates (4)
 - CHEM 320: Analytical Chemistry (4)
 - CHEM 331/333: Organic Chemistry I (5)
 - o CHEM 332/334 or 336: Organic Chemistry II (5)
 - ESCI 325: Structural Geology (4)
 - ESCI 327: Stratigraphy and Sedimentation (4)
 - ESCI 331: Maps: Computer-aided Mapping and Analysis (4)
 - ESCI 332: Geomorphology (4)
 - ESCI 336: Geochemistry (4)
 - ESCI 342: Climate and Earth System (4)
 - ESCI 345: Tectonic Petrology (4)
 - MATH/STAT 348: Statistical Computing and Consulting (4)
 - MATH/STAT 442: Statistical Modeling (4)
 - NSCI 350: STEM Education Partnership (4)

Environmental Science Concentration

28 semester hours beyond the Foundation courses (see listing above)

- 4 additional Environment and Society hours from a second department (see above in 2B)
- 4 additional Environment and Sensibility hours from a second department (see above in 2C)
- ENVT 350: Environmental Methods of Investigation (4)
- 16 semester hours of electives, with no more than 8 semester hours from a single department.
- BIOL 367: Conservation Biology & Management (4)
- BIOL 368: Ecology (4)

- BIOL 363: Tropical Marine Ecology (4)
- BIOL 369: Marine Biology (4)
- CHEM 320: Analytical Chemistry (4)
- CHEM 331/333: Organic Chemistry I (5)
- CHEM 332/334 or 336: Organic Chemistry II (5)
- ESCI 331: Maps: Computer-aided Mapping and Analysis (4)
- ESCI 332: Geomorphology (4)
- ESCI 342: Climate and Earth System (4)
- MATH/STAT 348: Statistical Computing and Consulting (4)
- MATH/STAT 442: Statistical Modeling (4)
- NSCI 350: STEM Education Partnership (4)

Bachelor of Arts Degree

Major in Earth Science

34 33 semester hours in the following earth science courses, plus 4 semester hours in supporting courses

The bachelor of arts degree is the minimum preparation for the field and is best combined with other degree programs, such as another major or minor. Students interested in Earth Science and completing a bachelor of arts in education often combine it with this degree.

Required: ESCI 201, 401, 498, 499, 499A, 499B

- 8 semester hours from: ESCI 102, 103, 104, 105, 106, 107, or 109
- 16 semester hours from: ESCI 325, 327, 331, 332, 336, 345, or 387/388/389
- Required supporting non-earth science course: CHEM 104 or CHEM 115
- Recommended: Geologic Field Experience
- Course selections should reflect a student's interests and are discussed with an advisor
- All courses taken for the major must be completed with a grade of C- or higher

Courses

Earth Science (ESCI) - Undergraduate Courses

ESCI 498 499A: Seminar

Discussion of professional papers and introduction to directed research for the Capstone project. Required of all majors in their senior year. December graduates should complete the sequence (ESCI 498-499 499A-499B) in their final full year. Prerequisite: at least 8 semester hours of 300-level or above courses in earth science. Pass/Fail. (1)

ESCI 499B: Capstone: Senior Seminar - SR

Culminating experience applying geological methods and theory through original literature or field or laboratory research under the guidance of a faculty mentor, with written and oral presentation of results. Required of all majors in their senior year. Prerequisite: ESCI 498 499A. (4) (3)

PHYSICS Fall 2026

Type 2 – change course number, title, description; delete course; change pre-requisite; add pre/co-requisite

Catalog

Bachelor of Arts Degree
Major in Physics
48 47 semester hours

- PHYS 153, 154, 163, 164, 223, 499A, 499B 499
- **Plus:** three courses in physics or engineering from:
 - o PHYS 310, 331, 336, 401
 - o ENGR 240, 333, 334, 355
 - PHYS 354 or MATH 351
 - CHEM 341 or CHEM 342 or MATH 331 or 356 may be counted as a substitution for one course
- Required supporting courses: MATH 151, 152, 253; CSCI 144 or DATA 133; ENGR 131

Bachelor of Science Degree Major in Physics

64 63 semester hours

PHYS 153, 154, 163, 164, 223, 310, 331, 332, 336, 354, 401, 499A, 499B
 499

- ENGR 333
- Strongly Recommended: ENGR 355
- CHEM 341 or PHYS 221 may be substituted for ENGR 333
- CHEM 342 may be substituted for PHYS 401
- MATH 351 may be substituted for PHYS 354
- Required supporting courses:
 - o CHEM 115; MATH 151, 152, 253; DATA 133 or CSCI 144

Typical B.S. Physics Major Program Schedule

- First Year: PHYS 153, 163; MATH 151, 152
- **Sophomore Year:** PHYS 154, 164, 223, 354; MATH 253
- Junior Year: PHYS 310, 331, 336; CHEM 115; DATA 133 or CSCI 144
- Senior Year: ENGR 333, PHYS 332, 401, 499A, 499B 499

Bachelor of Science Degree - Applied Physics Major

70 69 semester hours

Also available is a major in applied physics, which includes a substantial selection of courses from engineering to provide a challenging and highly versatile degree. Applied physics can lead to research or advanced study in such areas as robotics—with application in space exploration or joint and limb prosthetics; growth of single-crystal metals, which would be thousands of times stronger than the best steels now available; mechanics of material failure, such as metal fatigue and fracture; turbulence in fluid flow; photovoltaic cell research for solar energy development; or applications of fluid flow and thermodynamics to the study of planetary atmospheres and ocean currents. While many applied physics graduates pursue professional careers in industry immediately after graduation from PLU, the program also provides excellent preparation for graduate study in nearly all fields of engineering.

- PHYS 153, 154, 163, 164, 223, 310, 331, 354, 499A, 499B
- ENGR 131, 334
- Plus: four courses, one of which must be upper division, selected from:
 - o CSCI 302
 - ENGR 240, 333
 - Strongly Recommended: ENGR 355
 - MATH 331, MATH/STAT 242
 - PHYS 221, 332, 336, 401
 - CHEM 341 may be substituted for ENGR 333
 - CHEM 342 may be substituted for PHYS 401
 - MATH 351 may be substituted for PHYS 354

Required supporting courses:

o CHEM 115; DATA 133 or CSCI 144; MATH 151, 152, 253

Typical Applied Physics Program Schedule

• First Year: PHYS 153, 163; ENGR 131; MATH 151, 152

• **Sophomore Year:** PHYS 154, 164, 221, 223, 354; MATH 253

Junior Year: ENGR 333; PHYS 310; CHEM 115; DATA 133 or CSCI 144

• Senior Year: PHYS 331, 499A, 499B 499; ENGR 240, 334, 355

Courses

PHYS 223: Elementary Modern Physics

An introduction to the fundamental concepts that form the basis of special relativity and quantum mechanics. Topics may include time dilation, length contraction, four-momentum, wave interference and diffraction, wave-particle duality, and the modeling of bound systems. Prerequisites: PHYS 154 with a C- or higher and MATH 253 with a C- or higher. (4)

PHYS 332: Electromagnetic Waves and Physical Optics Oscillations, Waves, and Optics

Proceeding from Maxwell's equations, the generation and propagation of electromagnetic waves is developed with particular emphasis on their application to physical optics. Prerequisite: PHYS 331 with a C- or higher. (4)

An introduction to oscillations and waves in their mechanical and electrical realizations. Methods for solving ordinary and partial differential equations and vector calculus will be discussed as relevant. In the final part of the course, applications of electromagnetic waves to physical optics will be discussed. Prerequisites: PHYS 154 with a C- or higher. Prerequisite or corequisite: MATH 253. (4)

PHYS 499A 499: Capstone: Senior Seminar I - SR

Professional development, exploring career paths, case studies in ethics, literature review, experimental design, and the research process. With 499B meets Meets the senior seminar/project requirement. Prerequisites: PHYS 223 with a C- or higher; two upper-division courses in physics, one of which may be taken concurrently with 499A 499. (1)

PHYS 499B: Capstone: Senior Seminar II - SR

Continuation of PHYS 499A with emphasis on design and implementation of a project under the guidance of the physics staff. With PHYS 499A meets the senior seminar/project requirement. Prerequisite: PHYS 499A with a C- or higher. (1)

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BUSINESS Fall 2026

Type 1 - catalog editorial change

Catalog

M.B.A. (Business Administration) Degree Requirements 36 semester hours; 44 semester hours with emphasis

Students are not required to have an area of emphasis

M.B.A. 36 semester hours

- BMBA 509: Global Business Perspectives (4)
- BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)
- BMBA 511: Accounting for Decision Making (4)
- BMBA 513: Marketing Management (4)
- BMBA 515: Organizations, Leadership and Change Management (4)
- BMBA 517: Understanding & Managing Financial Resources (4)
- BMBA 521: Supply Chain and Information Management (4)
- BMBA 522: Quantitative and Managerial Decision Analysis (4)
- BMBA 523: Business Strategy and Innovation Management (4)

M.B.A. (Management Science & Quantitative Methods) Degree Requirements

44 semester hours; 52 semester hours with emphasis

Students are not required to have an area of emphasis

- BMBA 504: Quantitative Methods for Decision Making (4)
- BMBA 509: Global Business Perspectives (4)
- BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)
- BMBA 511: Accounting for Decision Making (4)
- **BMBA 513: Marketing Management (4)**

- BMBA 515: Organizations, Leadership and Change Management (4)
- BMBA 517: Understanding & Managing Financial Resources(4)
- BMBA 521: Supply Chain and Information Management (4)
- BMBA 522: Quantitative and Managerial Decision Analysis (4)
- BMBA 523: Business Strategy and Innovation Management (4)
- BMBA 526: Big Data and Decision Analytics (4)

M.B.A. Emphasis Areas Healthcare Management Emphasis 8 semester hours

- BMBA 560: Managing Health Care Enterprises (4)
- And 4 semester hours from the following:
 - BMBA 577: Project Management (4)
 - Approved BMBA 587/588/589: Special Topics (1 to 4)
 - o BMBA 596: Internship (1 to 4)

Entrepreneurship and Closely-Held Enterprises Emphasis 8 semester hours

- BMBA 550: Leading Family and Closely-Held Enterprises (4)
- And 4 semester hours from the following:
- MBA 577: Project Management (4)
- Approved BMBA 587/588/589: Special Topics (1 to 4)
- BMBA 595: Internship (1 to 4)

Technology and Innovation Management Emphasis (TIM)8 semester hours

- BMBA 570: Management and Marketing of Technology (4)
- And 4 semester hours from the following:
- BMBA 577: Project Management (4)
- Approved BMBA 587/588/589: Special Topics (1 to 4)
- BMBA 595: Internship (1 to 4)
- Supply Chain Management Emphasis
 8 semester hours
- BMBA 561: Advanced Supply Chain Management (4)
- And 4 semester hours from the following:
- BMBA 577: Project Management (4)

- Approved BMBA 587/588/589 Special Topics (1 to 4)
- BMBA 595: Internship (1 to 4)

M.B.A. (Management Science & Quantitative Methods) Degree Requirements

44 semester hours

- BMBA 504: Quantitative Methods for Decision Making (4)
- BMBA 509: Global Business Perspectives (4)
- BMBA 510: Legal, Ethical and Social Responsibilities of Business (4)
- BMBA 511: Accounting for Decision Making (4)
- BMBA 513: Marketing Management (4)
- BMBA 515: Organizations, Leadership and Change Management (4)
- BMBA 517: Understanding & Managing Financial Resources (4)
- BMBA 521: Supply Chain and Information Management (4)
- BMBA 522: Quantitative and Managerial Decision Analysis (4)
- BMBA 523: Business Strategy and Innovation Management (4)
- BMBA 526: Big Data and Decision Analytics (4)

HISTORY

Type 1 – add Core Element to Special Topics course

Spring 2026

Course

HIST 288 : Special Topics in European History

To provide undergraduate students with new, one-time, and developing courses not yet available in the regular curriculum. The title will be listed on the student term-based record as ST: followed by the specific title designated by the academic unit. (1 to 4)

Correction--This was published on the October 17, 2025 14-day clock.

The Core Curriculum Committee grants a one time approval for the Core element "IT" to be added to HIST 288 Special Topics (*Italian Renaissance*), to be taught in J-Term 2026 Spring 2026.

INTERNATIONAL HONORS PROGRAM

Type 1 – add Core Element to existing course

IHON 259: The Natural World - H2

This course utilizes a multidisciplinary approach to explore the natural world around and within us and to provide expression of our human inclination to order what we see and to think in quantitative terms. Topics will vary by instructor and term but each section of the course will draw from one of the following disciplines: biology, chemistry, computer science and computer engineering, geosciences, mathematics, or physics. (4)

NOTE:

The Core Curriculum Committee grants approval to add the VW Core element when taught as Genetic Engineering in Global Agriculture, effective Fall 2026.