

**Physics Content Mastery**

**Double Degree or Master of Science**

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| **Name:**   |  | **Date:** |  |

The purpose of this form is to demonstrate competence in the field Physics. Students are required to complete **at least 48 credits** of content mastery courses. To complete the form, list courses taken; include the planned terms for courses not taken. A University Honors course can be substituted for the corresponding course. If you have questions how the courses fit within your major, please contact your program advisor. Submit the completed form with your application.

The suggested courses help students prepare for the NES *Physics* exam required for teaching endorsement in Physics.
<http://www.orela.nesinc.com/Content/Docs/NES_Framework_308.pdf>

A cumulative 3.0 GPA is preferred on all required courses. Grades below C- are not accepted. All content mastery courses must be taken on an A-F basis; no P/N or S/U grades can be accepted for content mastery courses.

If you have questions about this form, please contact Carol McKiel at carol.mckiel@oregonstate.edu

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| **Content**  | **Examples of OSU courses** | **Course Designator & Number** | **Credits** | **Term/Year** | **Grade** |
| **Physics Sequence****15 credits** | PH 211\*/221, 212\*/222, 213\*/223  |  |  |  |  |
| **Paradigms in Physics\*\*****Select a minimum of 12 credits** | PH 422, 423, 424, 425, 426, 427 |  |  |  |  |
| **Modern Physics Electives****Select a minimum of 3 credits** | PH 315, 335, 411, 415, 465, 481PH/ECE 482, 483 |  |  |  |  |
| **Chemistry Sequence****15 credits** | CH 231\*/261\*, 232\*/262\*, 233\*/263\* |  |  |  |  |
| **Science Education****3 credits** | SED 413(or take SED516 during the program) |  |  |  |  |

\*\*The Paradigms series of course is unique to OSU. If you received a degree from another institution these courses equate to 12 quarter credits of a mixture of advanced physics and modern physics courses.

**Note:** A degree in engineering is largely sufficient for acceptance into the program. Most engineers will be required to take course work in thermodynamics and modern physics (e.g. PH 314 if not part of an undergraduate degree).