

APPLIED PHYSICS MAJOR
Program Tracking Sheet
 Effective for students entering AY 2024-2025

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|----------|------------------------|
| Name: | Class Year: |
| Advisor: | 2 nd Major: |

NOTES: Minimum total academic credit = 15 units
 Residency Req.: Min. of 8 units must be completed at WPI

HUMANITIES AND ARTS (2 units)

All 5 HUA courses must be completed before beginning the Inquiry Seminar or Practicum.

Depth Component

Students must complete at least three thematically-related courses prior to the culminating Inquiry Seminar or Practicum in the same thematic area. At least one of the three courses should be at the 2000-level or above.

| | Course | Term | Grade | Units |
|---|--------------------|------|-------|-------|
| 1 | | | | 1/3 |
| 2 | | | | 1/3 |
| 3 | | | | 1/3 |
| 4 | HU 3900 or HU 3910 | | | 1/3 |

Breadth Component

Students must take at least one course outside the grouping in which they complete their depth component. To identify breadth, courses are grouped in the following manner.

- i. art/art history, drama/theatre, and music (AR, EN/TH, MU);
- ii. foreign languages (AB, CN, EN, GN, SP);
- iii. literature and writing rhetoric (EN, WR, RH);
- iv. history and international studies (HI, HU, INTL);
- v. philosophy and religion (PY, RE).

Exception: May take all six courses in a foreign language

| | | | | |
|----------------------------|--|--|--|-----|
| 5 | | | | 1/3 |
| Humanities Elective | | | | |
| 6 | | | | 1/3 |

WELLNESS AND PHYSICAL EDUCATION (4 WPE classes = 1/3 unit)

| | | | | |
|---|--|--|--|------|
| 7 | | | | 1/12 |
| | | | | 1/12 |
| | | | | 1/12 |
| | | | | 1/12 |

SOCIAL SCIENCE (2/3 unit) ECON, ENV, GOV, PSY, SD, SOC, SS, STS, DEV, and ID2050

| | | | | |
|---|--|--|--|-----|
| 8 | | | | 1/3 |
| 9 | | | | 1/3 |

THE INTERACTIVE QUALIFYING PROJECT (1 unit)

| | | | | |
|----|--|--|--|-----|
| 10 | | | | 1/3 |
| 11 | | | | 1/3 |
| 12 | | | | 1/3 |

FREE ELECTIVES (1 unit)

| | | | | |
|----|--|--|--|-----|
| 13 | | | | 1/3 |
| 14 | | | | 1/3 |
| 15 | | | | 1/3 |

MATHEMATICS (3 units)

Mathematics must include at least 2/3 unit of mathematics at the level of MA 3000 or higher

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|----|-----------------------------------|--|--|-----|
| 16 | MA 1021 (Calc 1) | | | 1/3 |
| 17 | MA 1022 (Calc 2) | | | 1/3 |
| 18 | MA 1023 (Calc 3) | | | 1/3 |
| 19 | MA 1024 (Calc 4) | | | 1/3 |
| 20 | MA 2051 (Diff Eqs) | | | 1/3 |
| 21 | MA 2071 (Lin Alg) | | | 1/3 |
| 22 | MA 2251 (Vector/Tensor Calculus) | | | 1/3 |
| 23 | MA 4451 (Boundary Value Problems) | | | 1/3 |
| 24 | | | | 1/3 |

PHYSICS (5 units, includes MQP)

ES 3001 and CH 3510 count as physics courses

| | | | | |
|----|-----------------------------------|--|--|-----|
| 25 | PH 1110/1111 (Mechanics) | | | 1/3 |
| 26 | PH 1120/1121 (E&M) | | | 1/3 |
| 27 | PH 1130 (Modern Physics) | | | 1/3 |
| 28 | PH 1140 (Oscillations and Waves) | | | 1/3 |
| 29 | Mechanics: | | | 1/3 |
| 30 | Electromagnetism: | | | 1/3 |
| 31 | Experimental Physics: | | | 1/3 |
| 32 | Quantum Mechanics: | | | 1/3 |
| 33 | Thermals and statistical physics: | | | 1/3 |
| 34 | | | | 1/3 |
| 35 | | | | 1/3 |
| 36 | | | | 1/3 |

MAJOR QUALIFYING PROJECT (3/3 unit)

| | | | | |
|----|--|--|--|-----|
| 37 | | | | 1/3 |
| 38 | | | | 1/3 |
| 39 | | | | 1/3 |

APPLIED FOCUS or MINOR (2 units)

The Applied Focus requirement is satisfied by completing a minor in a department other than physics or by completing a coherent group of at least two units of courses in an applied field. The 2-unit program must be formulated prior to the student's final year of study by the student in consultation with his/her academic advisor and approved by the Physics Department Undergraduate Curriculum Committee.

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|----|--|--|--|-----|
| 40 | | | | 1/3 |
| 41 | | | | 1/3 |
| 42 | | | | 1/3 |
| 43 | | | | 1/3 |
| 44 | | | | 1/3 |
| 45 | | | | 1/3 |

Physics Courses must include at least 1/3 unit from each of the five principal areas of physics: mechanics, experimental physics, electromagnetism, quantum mechanics, and thermal statistical physics.

This core distribution requirement is satisfied by successfully completing at least one course from each of the following five sets of courses: PH 2201 or 2202 (mechanics); PH 2651 or 2601 (experimental physics); PH 2301 or 3301 (electromagnetism); PH 3401 or 3402 (quantum mechanics); ES 3001, CH 3510, PH 2101 or PH 3206 (thermal and statistical physics); or other courses approved by the department Program Review Committee following petition by the student.