UMass Dartmouth
Physics Minor Recommended Sequence (20 credits)

- **Required**
  - PHY 113
  - PHY 114
  - PHY 115 or 213

- **Three 300+ courses**
  - PHY 300
  - PHY 313
  - PHY 322
  - PHY 341, 342
  - PHY 411, 412
  - PHY 421
  - PHY 441, 442
  - PHY 521
  - PHY 531

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**Freshman**
- **Fall**
  - 17 credits
  - MTH 151 (or 153)
    - Calculus I
    - [4] (Fall/Spring)

- **Spring**
  - 17 credits
  - MTH 152 (or 154)
    - Calculus II
    - [4] (Spring/Fall)

**Sophomore**
- **Fall**
  - 13 credits
  - MTH 211 (or 213)
    - Calculus III
    - [4] (Fall/Spring)

- **Spring**
  - 13 credits
  - PHY 234
    - Intrm Math Phys
    - [3] (Spring)

**Junior**
- **Fall**
  - 15 credits
  - PHY 302
    - Elec Devices
    - [3] (Fall)

- **Spring**
  - 15 credits
  - PHY 341
    - Quantum Mech. I
    - [3] (Spring)

**Senior**
- **Fall**
  - 15 credits
  - PHY 342
    - Quantum Mech. II
    - [3] (Fall)

- **Spring**
  - 15 credits
  - PHY 442
    - Solid State Physics
    - [3] (Spring)

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**Studies Cluster 1E.**

2 University Studies courses must be selected from approved courses in Cluster 3 and 4. These course selections should be discussed with your academic advisor.

3 ENL 101 and ENL 102 satisfy University Studies Cluster 1A & 1B.

4 PHY 114 satisfies University Studies Cluster 2A.

5 PHY 115 satisfies University Studies Cluster 2B.

6 PHY 225 satisfies University Studies Cluster 1C.

7 Taken as a Physics Elective. These courses should be discussed with your academic advisor.

8 A minimum of 6 credits in a second science, mathematics, or engineering. Courses from BIO, BNG, CHM, CIS, CEN, ECE, MNE, MTH, or Astrophysics (PHY 252 & PHY 363) which satisfy the major requirements for that department may be selected. These courses must be approved by your academic advisor.

9 PHY 441 & PHY 442 are offered on an alternating basis.

10 An approved Capstone Study to satisfy University Studies 5A & 5B.

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Pre-requisite — Co-requisite

Revised 04/2020/jw