## Physics (B.S.)

2023-2024 catalog

Student Name:

ID Number:

**Major Requirements** Title **Term Completed/Planned** Grade Credit Course # 5 PHY121 and 121L: General Physics I (NSM-L) 5 PHY122 and 122L: General Physics II (NSM-L) 5 PHY245 and 245L: Modern Physics 5 PHY261 and 261L: Electronics 4 **Classical Mechanics** PHY351 4 PHY365 **Electricity and Magnetism** 2 PHY395 Comprehensive Laboratory I 2 PHY396 Comprehensive Laboratory II 2 PHY484 **Quantum Mechanics Supplement** 4 CHM368 Physical Chemistry: Microscopic Theory 5 CHM115 and 115L: General Chemistry I (NSM-L) 5 CHM116 and 116L: General Chemistry II (NSM L) 4 MAT145 and 145L: Calculus I (NSM) 4 MAT146 and 146L: Calculus II (NSM) 4 MAT255 Multivariable Calculus Complete one (1) of PHY327 or MAT369 5 PHY327 and 327L: Special Functions of Mathematical Physics Modeling and Differential Equations in Biological and Natural Sciences 4 **MAT369** Complete at least eight (8) elective credits, including at least 4 credits in physics, chosen from: PHY317 and 317L: Biophysics 5 5 BIO473 and 473L: Physiology of Humans and Other Animals 5 BIO475 and 475L: Neurobiology 4 CHM362 Physical Chemistry: Macroscopic Theory 2 CHM430 Advanced Thermodynamic and Separation Lab 2 CHM450 Advanced Spectroscopy and Computational Chemistry Lab 4 CHM481 Instrumental Analysis 4 CHM482 Advanced Inorganic Chemistry 4 CSC371 **Computer Organization** 4 CSC431 Introduction to A I Robotics 4 DST334 Statistical Modeling Modeling and Differential Equations in Biological and Natural Sciences (if not 4 **MAT369** used in place of PHY327 above) Δ **MAT455** Numerical Mathematics and Computation Complete one (1) Speaking skill course, chosen from: COM111 Public Speaking (HUM) 4 4 Scientific and Technical Public Speaking (HUM) COM115 2 **MAT201 Communicating Mathematics** 4 HON130 Liberating Letters (HUM)

Abbreviation Key: ML = Modern Language; SC = Signature Curriculum; EM = Engaging Minneapolis; AE = Augsburg Experience; KC = Senior Keystone Course; NSM = Natural Science & Mathematics - no lab; NSM-L = Natural Science & Mathematics-with lab; SBS = Social & Behavioral Science; FA = Fine Arts; HUM = Humanities

Student's Signature

Advisor's Printed Name

Signature

Date

Advisor(s): By signing, you indicate you have verified the accuracy of the information above. Faculty advisors must initial next to each course substitution/waiver and sign this form.



Date