

UNIVERSITY OF MISSOURI- ST. LOUIS
AND
ST. LOUIS COMMUNITY COLLEGE

ASSOCIATE IN ARTS IN GENERAL TRANSFER SERVICES leading to a BACHELOR OF SCIENCE in

PHYSICS: ASTROPHYSICS

FIRST SEMESTER

SLCC Course (Hours)

*MTH 185 Precalculus (5)
ENG 101 College Composition I (3)
State Requirement/Social Science (3)
IDS 101 Cornerstone (3)
PE Activity (1)

UMSL Equivalent

Math 1030 & 1035
Englsh 1100
Gen Ed
Gen Ed Elective
Free Elective

SECOND SEMESTER

SLCC Course (Hours)

MTH 210 Analytic Geom.& Calc.I(5)
Humanities (3)
COM 101 Oral Communication I (3)
CHM 105 General Chemistry I (5)
PE Activity (1)

UMSL Equivalent

Math 1800
Gen Ed
Commun 1040
Chem 1111

Semester Hours: (15)

Semester Hours: (17)

THIRD SEMESTER

SLCC Course (Hours)

PHY 122 Engineering Physics I (5)
MTH 220 Analytic Geo.& Calc.II (5)
**Social Science (3)
Humanities (3)

UMSL Equivalent

Physcs 2111
Math 1900
Cultural Diversity
Gen Ed

FOURTH SEMESTER

SLCC Course (Hours)

PHY 223 Engineering Physics II (5)
MTH 220 Analytic Geo.& Calc.III(5)
Social Science (3)
IDS 201 Capstone (4)

UMSL Equivalent

Physcs 2112
Math 2000
Gen Ed
Gen Ed Elective

Semester Hours: (16)

Semester Hours: (17)

FIFTH SEMESTER

UMSL Course (Hours)

ENGLSH 3100 Advanced Expository Writing (3)
PHYSCS 1099 Windows on Physics (1)
PHYSCS 3200 Math. Methods of Theoretical Physics (3)
PHYSCS 3231 Introduction to Modern Physics I (3)
MATH 2020 Differential Equations (3)
ASTRON 1050 Introduction to Astronomy I (3)

SIXTH SEMESTER

UMSL Course (Hours)

PHYSCS 3221 Mechanics (3)
PHYSCS 3223 Electricity & Magnetism (3)
ASTRON 1051 Introduction to Astronomy II (3)
ASTRON 4301 Astrophysics (3)
CMP SC 1250 Introduction to Computing (3)

Semester Hours: (16)

Semester Hours: (15)

SEVENTH SEMESTER

UMSL Course (Hours)

PHYSCS 4331 Introduction to Quantum Mechanics (3)
MATH 2450 Elementary Linear Algebra (3)
MATH 4030 Applied Mathematics I (3) **or**
MATH 4230 Numerical Analysis I (3)
ASTRON 4322 Observational Astronomy (4)

EIGHTH SEMESTER

UMSL Course (Hours)

PHYSCS 4341 Thermal and Statistical Physics (3)
PHYSCS 4323 Modern Optics (3)
Physics Elective above 4300 (3)

Semester Hours: (13)

Semester Hours: (9)

DEGREE NOTES:

* Students begin their Math sequence based on their results on the SLCC Math Placement Test.

** St. Louis Community College social science courses that also fulfill University of Missouri- St. Louis cultural diversity requirement are ANT 102, ANT 201, ANT 202, ANT 203, ANT 205, ANT 206, ANT 207, GEG 100, HST 130, HST 131, HST 201, HST 205, PHL 103, POL SCI 204, and PSY 217.

There are 4 degree options for the Bachelor of Science in Physics; General Physics, Astrophysics (as shown above), Engineering Physics, and Medical Physics, as well as an Optical Physics option that allows students to complete their Bachelor of Science in Physics and Doctor of Optometry in seven years. Selection of a degree option is to be done under the guidance of a faculty advisor in the University of Missouri- St. Louis Physics department.

A minimum of 120 hours is required for the Bachelor of Science in Physics.

Free Elective hours do not count towards the total required for graduation at the University of Missouri- St. Louis.

Students completing a degree from a Missouri community college that includes a CBHE approved general education core will be allowed transfer credit of more than 64 hours only if the additional lower division credits are applicable to the baccalaureate degree or are prerequisites for upper division courses in the major.

A maximum of 60 hours may transfer without the completion of a degree including a CBHE approved general education core.

Please seek advisement from your SLCC Academic Advisor for assurance of Associates degree completion.

IT IS IMPORTANT TO CONTACT AN UMSL TRANSFER COORDINATOR EACH SEMESTER:

SLCC- Florissant Valley

Maya Scruggs, UMSL Transfer Coordinator: First Floor Administration Bldg., (314) 513-4260.

SLCC- Forest Park

Maya Scruggs, UMSL Transfer Coordinator: Student Center E228, (314) 644-9729.

SLCC- Meramec

Krystal Lang, UMSL Transfer Coordinator: Counseling & Advising, 201 Clark Hall, (314) 984-7575.

For additional information contact Tapei Cheng in the University of Missouri- St. Louis Physics Department: 503J Benton Hall, (314) 516-5931, tpcheng@umsl.edu.