

TRANSFER GUIDE

AS Mathematics Suggested Curriculum transferring into BS Physics Computational

Kaskaskia College Courses			
AS Mathematics Suggested Curriculum – 65 hours			
GUID 109-1	First Year College Experience	Elective-3	Fine Arts
ENGL 101-3	English Composition	HLTH 102-3	Human Health & Wellness
ENGL 102-3	English Composition	CITA 110-1	Intro to Word Processing
COMM 103-3	Fundamentals of Speech Comm	MATH 166-5	Calculus & Analytical Geometry I
MATH 136-4	General Statistics	ENGR 201-3	Computer Programming for Engr
PSYH 101-3	Psychology	MATH 236-3	Linear Algebra
Elective-3	Social/Behavioral Science	MATH 267-4	Calculus & Analytical Geometry II
PHLE 120-3	Ethics	MATH 268-4	Calculus & Analytical Geometry III
PHYS 201-5	University Physics I	MATH 269-3	Differential Equations
Elective-3	Biology	PHYS 202-5	University Physics II
Southern Illinois University Carbondale Courses			
BS Physics (PHYS) Computational Specialization – 61 hours			
Supp Skills Req-3	1 Additional Life Science Course	PHYS 420-3	Electricity & Magnetism II
CHEM 200,201,202-5	Intro Chem Prin w/Lab, Wkshp	PHYS 430-3	Quantum Mechanics I
1 Course-3	MATH 405, 407, 450, 455 or 475	PHYS 440-3	Quantum Mechanics II
PHYS 100-1	Undergraduate Seminar	PHYS 445-3	Thermodynamics & Statistical Mechanics
PHYS 206A,206B-2	Problem Solving	PHYS 476C-3	Intro to Computational Physics
PHYS 301-3	Theoretical Methods in Physics	CS 215-4	Discrete Mathematics
PHYS 305,355-4	Modern Physics w/Lab	CS 220-4	Programming with Data Structures
PHYS 310-3	Classical Mechanics	Computatn Elec-7	300/400 level; select from list of approved courses
PHYS 320-3	Electricity & Magnetism I	Electives-4	300/400 level to reach 42 senior hours
Total Hours to Bachelor Degree: 126 Hours			

Salary Range: \$30,000-\$75,000

Possible Careers: Materials Processing Engineer
Optical Physicist/Engineer
Laser Physicist/Engineer
Imaging Scientist

Possible

Graduate Studies: Astronomy
Physics/Applied Physics
Biomedical Engineering
Electrical/Computer Engineering

Questions? Contact Us!

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Baccalaureate Degree Requirements

Each candidate for a bachelor's degree must complete the requirements listed:

Hour Requirements. Student must complete at least 120 semester hrs of credit. Each student must have at least 42 hrs in courses that number 300 or above from a four-year institution.

Residence Requirements. Student must complete the residency requirement by taking a total of 42 semester hrs at SIU Carbondale.

Grade Point Average Requirements. Student must have a C average for all work taken at SIU Carbondale. Some academic programs may require a higher graduating major GPA.

Compact Agreement

SIU Carbondale has recognized Illinois regionally accredited community college transferable baccalaureate-oriented Associate of Arts or Associate of Science degrees under the Compact Agreement since 1970. SIUC will continue to recognize the baccalaureate oriented associate degree (A.A. or A.S. degree) under the Illinois Articulation Initiative as satisfying SIU University Core Curriculum (UCC) requirements. The Associate of Applied Science (A.A.S.), Associate in Engineering Science (A.E.S.), the Associate in General Studies (A.G.S.), and the Associate in Fine Arts (A.F.A.) are not covered under the Compact Agreement and do not carry the same benefits as the A.A. and A.S. degrees.

Saluki Transfer Pathways

[Saluki Transfer Pathways](#) is the university's dual admission program that allows baccalaureate-oriented students at eligible community colleges intending to transfer to SIU Carbondale to benefit from early admission and pre-advisement for a baccalaureate program at SIUC. Saluki Transfer Pathways allows students to be conditionally admitted to SIU Carbondale up to two years in advance of their intended transfer term so they have access to transfer credit evaluation and the university's degree audit system. This allows students to address major specific requirements that may not be automatically fulfilled with the completion of an associate degree. Students apply to Saluki Transfer Pathways by completing the Application for Undergraduate Admission and indicating an interest in the program. To participate, students must have at least two semesters remaining at their community college. Direct questions about the Saluki Transfer Pathways program to transfer@siu.edu.

DegreeWorks

DegreeWorks is an easy-to-use, online degree audit tool specifically designed for students. Once admitted to SIU Carbondale, you can use it monitor your progress toward your degree in [Salukinet](#).

Saluki Transfer Estimator Portal (STEP)

The [Saluki Transfer Estimator Portal](#) (STEP) is a web-based tool that integrates institutional course equivalency and degree audit data to provide an unofficial credit estimation and a more seamless transfer process. STEP gives transfer students a clear roadmap for timely degree completion by providing key information about how transfer credits apply to your intended program at SIU.

PROGRAM ARTICULATION DEGREE PLAN					
Kaskaskia College 2024-2025			Southern Illinois University Carbondale		
AS Mathematics Suggested Curriculum - 65 hours			BS Physics (PHYS) Computational Physics Specialization - 120 hours		
		Hrs	University Core Curriculum (UCC) - 39 hrs *		Hrs
			UNIV 101	Saluki Success	NA
COMM 103	Fundamentals of Speech Comm	3	CMST 101	Intro to Oral Communication	T
ENGL 101	English Composition	3	ENGL 101	English Composition I	T
ENGL 102	English Composition	3	ENGL 102	English Composition II	T
MATH 136	General Statistics	4	MATH 282	Intro to Statistics	T
PSYH 101	Psychology	3	PSYC 102	Intro to Psychology	T
	Social/Behavioral Science	3	SOCIAL SCIENCE	See SIUC Transfer Equivalency Guide	T
PHLE 120	Ethics	3	PHIL 104	Ethics	T
			HUMANITIES		NA
PHYS 201	University Physics I	5	PHYS 205A -and- 255A	University Physics w/Lab	T
	Biology	3	LIFE SCIENCE	See SIUC Transfer Equivalency Guide	T
	Fine Arts	3	FINE ARTS	See SIUC Transfer Equivalency Guide	T
HLTH 102	Human Health & Wellness	3	PH 101	Foundations of Human Health	T
			MULTICULTURAL		NA
		36			0
			*An AS from a regionally accredited Illinois community college satisfies UCC requirements		
Program Requirements			Program Requirements		
GUID 109	First Year College Experience	1	Any unarticulated courses will be used to satisfy general elective credit		
CITA 110	Intro to Word Processing	1			
ENGR 201	Computer Programming for Enginee	3	CS 202	Intro to Computer Science	T
MATH 166	Calculus & Analytical Geometry I	5	MATH 150	Calculus I	T
MATH 236	Linear Algebra	3	MATH 221	Intro to Linear Algebra	T
MATH 267	Calculus & Analytical Geometry II	4	MATH 250	Calculus II	T
MATH 268	Calculus & Analytical Geometry III	4	MATH 251	Calculus III	T
MATH 269	Differential Equations	3	MATH 305	Intro to Differential Equations	T
PHYS 202	University Physics II	5	PHYS 205B -and- 255B	University Physics w/Lab	T
		29			
			Supportive Skills Requirement	Select 1 additional Life Science course	3
			CHEM 200, 201 -and- 202	Intro to Chemical Principles w/Lab & Workshop	5
			Select 1 Course:	MATH 405, 407, 450, 455 -or- 475	3
			CS 215	Discrete Mathematics	4
			CS 220	Programming with Data Structures	4
			PHYS 100	Undergraduate Seminar	1
			PHYS 206A -and- 206B	Problem Solving	2
			PHYS 301	Theoretical Methods in Physics	3
			PHYS 305 -and- 355	Modern Physics w/Lab	4
			PHYS 310	Classical Mechanics	3
			PHYS 320	Electricity & Magnetism I	3
			PHYS 420	Electricity & Magnetism II	3
			PHYS 430	Quantum Mechanics I	3
			PHYS 440	Quantum Mechanics II	3
			PHYS 445	Thermodynamics & Statistical Mechanics	3
			PHYS 476C	Intro to Computational Physics	3
			Computational Physics Electives	Choose a minimum of 7 hrs from: CS 475; PHYS 390, 424, 425, 428, 431, 432, 458, 470, 476B, 476M, 476Q, 490	7
			Electives	300/400 level to reach 42 senior institution hours	4
					61
Total semester hrs completed with AS degree:		65	Total semester hrs completed with BS degree:		61
			Total semester hrs to BS degree:		126
<i>Degree Plan updated on 7/31/24 by SG</i>					