2004 – 05 Catalog (11-02-04)

Freshman Year	**F**	**S**
Chem 112*, 112L, General Chemistry I and Associated Lab	4	
Chem 114*, General Chemistry II		3
GE 121, Engineering Design Graphics I	1	
GE 122, Engineering Design Graphics II **or** GE 123, Computer Aided Drawing		1
Engl 101*, Composition I	3	
Math 123*, Calculus I	4	
Math 125, Calculus II.		4
Phys 211**, 211L, University Physics I and associated Lab		4
SpCm 101-101A*, Fundamentals of Speech and Lab		3
Gen Ed Social Science* (Catalog p35) (G)	3	
	15	15

Sophomore Year	**F**	**S**
Engl 201*, Composition II, or Engl 379, Technical Communications		3
CSc 150, or CSc 213, or CSc 218 a programming language		3
EE 220, 220L, Circuits I and associated Lab	4	
EE 221, 221L, Circuits II and associated Lab		4
Math 225, Calculus III	4	
Math 321, Differential Equations		3
Phys 213, 213L, University Physics II and associated Lab	4	
Gen Ed Humanities and Fine Arts* (Catalog p36)	3	
Gen Ed Humanities and Fine Arts* (Catalog p36-37) (G)	3	
Gen Ed Social Science* (Catalog p35)		3
	18	16

Junior Year	**F**	**S**
Math 331, Advanced Engineering Mathematics **or** Math 327, Calculus of Several Variables		3
Phys 316, Measurement Theory and Experiment Design	2	
Phys 318, Advanced Lab I		1
Phys 331, Introduction to Modern Physics	3	
Phys 341, Thermodynamics	2	
Phys 343, Statistical Physics	2	
Phys 361, Optics	3	
Phys 451, Classical Mechanics.		4
SDSU Core: Goal 1**, Wellness, (Catalog p39)		2
SDSU Core: Goal 2**, Human Community, (Catalog p39)	2	
SDSU Core: Goal 3**, Human Spirit, (Catalog p40)		2
♢ Technical Electives	2	4
	16	16

Senior Year	**F**	**S**
Phys 418, Advanced Lab II.		1
Phys 421, Electromagnetism	4	
Phys 435, Intro. to Nuclear Engineering **or** Phys 439, Solid State Physics		3
Phys 471, Quantum Mechanics		4
Phys 490, Seminar		1
SDSU Core: Goal 5**, Stewardship, (Catalog p41)		2
♢ Technical Electives	12	5
	16	16

The 30 credit Board of Regents General Education requirements must be completed as part of a student's first 64 credits. See the Catalog, pages 34-38, for details. Courses that are part of these credits are indicated by an asterisk (*). Check especially the six credits for goals 4 and 5 which require courses from two different disciplines. The *Physics Major -- Professional Physics Emphasis* curriculum has received an exemption in that the second English course may be delayed until the junior year.

(G) The BOR General Education requirements include an International/Global Diversity requirement of 6 credits. Courses may count toward both the International/Global Diversity requirement and the social science and/or humanities and fine arts requirements. See the Catalog, page 37, for details.

** South Dakota State University has a 10 credit SDSU Institutional Graduation Requirement (SDSU Core). See the Catalog, pages 39-41, for details. These requirements are indicated by a double asterisk (**).

Students must take the proficiency examination after completing 48 credits. English 101, and a course in each of the General Education areas of social science, mathematics, natural science, and humanities and fine arts must be taken prior to taking this exam.

♢ Technical electives will be selected with the assistance of the student's advisor from courses offered by the Electrical Engineering, Physics, Computer Science, Chemistry, Biology, and Mathematics departments. A complete list of departmental approved technical electives is available in the Physics Department office. Any departures from this list must be approved by the Head of the Physics Department.

Name _____
Date _____

38 credits in physics

Physics 211, 211L	4	_____
Physics 213, 213L	4	_____
Physics 316	2	_____
Physics 318	1	_____
Physics 331	3	_____
Physics 341	2	_____
Physics 343	2	_____
Physics 361	3	_____
Physics 418	1	_____
Physics 421	4	_____
Physics 435 or 439	3	_____
Physics 451	4	_____
Physics 471	4	_____
Physics 490	1	_____

18 credits in mathematics

Math 123	4	_____
Math 125	4	_____
Math 225	4	_____
Math 321	3	_____
Math 327 or Math 331	3	_____

8 credits in electrical engineering

EE220, 220L	4	_____
EE221, 221L	4	_____

5 credits in miscellaneous engineering courses

GE 121	1	_____
GE 122 or GE 123	1	_____
CSc 150 or CSc 213 or CSc 218	3	_____

7 credits in chemistry

Chem 112 & 112L	4	_____
Chem 114	3	_____

23 additional credits of technical electives ◊
Physics, Math, Electrical Engineering,
Mechanical Engineering, Chemistry,
Computer Science
numbered 300 or greater
or other science/technical credits by
approval of physics department head

29 credits in Core requirements

BOR Goal 1, Engl 101*, Composition I	3		
BOR Goal 1, Engl 201*, Composition II (or Engl 379)	3		
BOR Goal 2, SpCm 101-101A*, Fund. of Speech and Lab	3		
BOR Goal 3, Social Science* (Catalog p35)	3		
BOR Goal 3 & 7, Social Science* (Catalog p35&37) (G)	3		
BOR Goal 4, Humanities & Fine Arts* (Catalog p36)	3		
BOR Goal 4 & 7, Hum. & Fine Arts* (Catalog p36&37)(G)	3		
BOR Goal 5, Mathematics * (Catalog p36) (3)	0	above	Math 123
BOR Goal 6, Natural Science * (Catalog p37) (6)	0	above	Chem 112,114
SDSU Core: Goal 1**, Wellness, (Catalog p39)	2		
SDSU Core: Goal 2**, Human Community, (Catalog p39)	2		
SDSU Core: Goal 3**, Human Spirit, (Catalog p40)	2		
SDSU Core: Goal 4**, Science Methods, (Catalog p41) (2)	0	above	Phys 111 or 211
SDSU Core: Goal 5**, Stewardship, (Catalog p41)	2		

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