

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE**

B.S. DEGREE IN COMPUTATIONAL AND DATA SCIENCES (352 Research I, 703-993-8402)

<http://spacs.gmu.edu/>

2012-2013 CATALOG

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
GENERAL EDUCATION REQUIREMENTS (*27)			
a. Written Communication: ENGH 101 (100), ENGH 302 (C or better) (3,3)		_____	____
b. Oral Communication: COMM 100 or 101 (please circle choice) (3)		_____	____
c. Quantitative Reasoning (satisfied by completion of major requirements)			
d. Literature (3)	_____	_____	____
e. Arts (3)	_____	_____	____
f. Western Civilization (3)	_____	_____	____
g. Social & Behavioral Science (3)	_____	_____	____
h. Natural Science (satisfied by completion of major requirements)			
i. Global Understanding (3)	_____	_____	____
j. Information Technology (partially satisfied by completion of major requirements)			
k. Synthesis (3)	_____	_____	____

Go to: <http://chss.gmu.edu/general-education/all-requirements> to link to information on general education requirements.

MAJOR REQUIREMENTS (72-83 hours required)

a. CDS 302 (writing intensive course) (3)		a. _____	_____
b. Five courses chosen from the following (15): CDS 101 or 130, CDS 251, CDS 301, CDS 401, CDS 410, CDS 411 (circle choices)		b. _____	_____
c. CDS 151 (1)		c. _____	_____
d. MATH 113, MATH 114 (4,4)		d. _____	_____
e. MATH 203, MATH 213 (3,3)		e. _____	_____
f. MATH 214, MATH 446 (3,3)		f. _____	_____
g. STAT 344 (3)		g. _____	_____
h. Three to nine credits of CDS electives (list course(s)) (3-9)	_____		

- i. One of the following Physics sequences: PHYS 160/161; 260/261 or PHYS 243/244; PHYS 245/246 (circle choice) (8)
- j. Twenty Credits of Science Electives or a science concentration: (20-25)

Science Electives (chosen in consultation with the academic advisor) (list courses)(20)

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Physics: (21)

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|--|----------|-------|
| 1. PHYS 160/161(3,1) | 1. _____ | _____ |
| 2. PHYS 260/261(3,1) | 2. _____ | _____ |
| 3. PHYS 262/263 (3,1) | 3. _____ | _____ |
| 4. Three of the following (circle choices): PHYS 303, PHYS 305, PHYS 306, PHYS 307, PHYS 308, PHYS 328 (9) | | |

Chemistry: (21)

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|---|----------|-------|
| 1. PHYS 243/244 (3/1) | 1. _____ | _____ |
| 2. PHYS 245/246(3/1) | 2. _____ | _____ |
| 3. CHEM 211, CHEM 212 (4,4) | 3. _____ | _____ |
| 4. CHEM 313/315 (3,2) or CHEM 331/336 (3,2) (circle choice) | 4. _____ | _____ |

Biology: (25)

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|-----------------------------|----------|-------|
| 1. CHEM 211, CHEM 212 (4,4) | 1. _____ | _____ |
| 2. CHEM 313/315 (3,2) | 2. _____ | _____ |
| 3. BIOL 213, BIOL 311 (4,4) | 3. _____ | _____ |
| 4. BIOL 305, BIOL 306 (3,1) | 4. _____ | _____ |

A GPA of 2.0 or better is needed in major requirements.

GENERAL ELECTIVES (List courses)

_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

MINIMUM HOURS TO GRADUATE: 120

UPPER DIVISION HOURS (minimum 45):

This planning form is intended to be used in consultation with your academic advisor and reflects the requirements for the 2012-2013 Catalog; the University Catalog is the official reference for program requirements.

COURSE LISTS (COMPUTATIONAL AND DATA SCIENCES)

University General Education Requirements

Written Communication: ENGL 101 (or 100) and ENGL 302

Oral Communication: COMM 100 or COMM 101

Quantitative Reasoning: **MATH 113**. (The Math Placement Test is required to take MATH 113. See this web site for more information: http://cos.gmu.edu/academics/undergraduate/math_placement_testing)

Literature: ARAB 325; CHIN 310, 311, 325, 328; CLAS 250, 260, 340, 350, 360, 380; ENGH 201, 202, 203, 204; FREN 325, 329; FRLN 330; GERM 325; ITAL 325; PHIL 253; RELI 235; RUSS 325, 326, 327; SPAN 325

Arts: ARTH 101, 102, 103, 200, 201, 203, 204, 321, 322, 324, 333, 334, 335, 340, 341, 342, 344, 345, 360, 362, 372, 373, 376; AVT 103, 104, 215, 222, 232, 243, 252, 253, 262, 272; DANC 101, 119, 125, 131, 145, 161, 225, 231, 245, 301, 390, 391; ENGH 370, 372, 396; FAVS 225; GAME 101; MUSI 100, 101, 102, 107, 301, 302, 380, 381, 382, 383, 384, 385, 387, 389, 485; PHIL 156; THR 101, 150, 151, 210, 230, 395, 411, 412.

Western Civilization: HIST 100 or 125; transfer students may substitute the following courses for HIST 100 or 125: HIST 101, 102, 202, 301, 302, 304, 305, 306, 308, 309, 314, 322, 387, 388, 435, 436, 480.

Social and Behavioral Sciences: AFAM 200; ANTH 114, 120, 135, 396; CONF 101; CONS 410; CRIM 100; ECON 100, 103, 104, 105, 110, 111 (110 and 111 must be taken together); EDUC 372; GGS 103; GOVT 101, 103, 367; HEAL 230; HIST 121, 122; LING 306; PSYC 100, 211, 231; SOCI 101; SOM 100; TOUR 311; WMST 200

Natural Sciences: Satisfied by completion of major requirements.

Global Understanding: ANTH 302, 304, 306, 307, 308, 309, 311, 312, 313, 331, 332, 333, 385; ARTH 319, 320, 380, 382, 383, 384, 385, 386; CEIE 100; COMM 305, 456; CRIM 405; DANC 118, 318; ECON 360, 361, 362, 380, 390; ENGL 349, 350; GCH 205; GGS 101; GLOA 101; GOVT 132, 133; HIST 130, 251, 252, 261, 262, 271, 272, 281, 282, 328, 329, 356, 358, 360, 364, 365, 387, 460, 462; JAPA 310; MSOM 305; MUSI 103, 431; PSYC 379; RELI 100, 211, 212, 313, 315, 341, 374; RUSS 354; SOCI 120, 320, 332; SPAN 322; THR 359, TOUR 210; WMST 100

Information Technology: **One of these courses**: ANTH 395, **CDS 130**, CHEM 350, CEIE 117, GOVT 300, HIST 390, IT 103, MUSI 415 **or Course(s) from a) and one course from b)**: **a)** AVT 180; CS 112; PHYS 251; PSYC 300, 301, & 372 (all three must be taken and in sequence); SOCI 410 **b)** **CDS 151**, CEIE 409, CS 105, ENGR 107, IT 304, PHIL 112

Synthesis: ANTH 400; ARTH 394; AVT 497, 498; BINF 354; BIOL 301; BIS 490; CEIE 490; COMM 326, 362, 454; CONF 490; CONS 490; CRIM 495; CS 306; DANC 490; ECE 447, 492, 493; ECON 309; EDCI 490; ENGH 305; EVPP 335; FAVS 352; FRLN 385; GEOL 420; GGS 303, 304; GOVT 490, 491; HAP 465; HIST 300, 499; IT 492; LAS 499; MATH 400; MUSI 490; NCLC 308; NURS 265; PHIL 309, 343, 377, 378; PSYC 405, 406; RELI 490; RUSS 353; SOCI 377, 483; SOCW 323, SOM 498; SPAN 388; SYST 495; THR 440, 496; PROV 342; UNIV 442