

**GEORGE MASON UNIVERSITY
COLLEGE OF SCIENCE
B.S. DEGREE IN CHEMISTRY WITH CONCENTRATION IN
ANALYTICAL AND ENVIRONMENTAL CHEMISTRY
(303 Planetary Hall, 703-993-1071)
<https://cos.gmu.edu/chemistry/undergraduate-programs/>
2016-2017 CATALOG**

	<u>Department(s) & Course #(s)</u>	<u>Completed/ Grade(s)</u>	<u>Needed</u>
<u>MASON CORE REQUIREMENTS (*27)</u>			
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 (3)	_____	_____	_____
k. Synthesis (3)	_____	_____	_____

Go to: <http://masoncore.gmu.edu/> to link to information on Mason Core requirements.

MAJOR REQUIREMENTS (78-79 hours required)

a. CHEM 211/213, CHEM 212/214 (3/1,3/1)	a.	___ ___	___ ___
b. CHEM 313, CHEM 314 (3,3)	b.	___ ___	___ ___
c. CHEM 315, CHEM 318 (2,2)	c.	___ ___	___ ___
d. CHEM 321 (4)	d.	___ ___	___ ___
e. CHEM 331 (3)	e.	___ ___	___ ___
f. CHEM 332 (3)	f.	___ ___	___ ___
g. CHEM 336 (writing intensive course) (2)	g.	___ ___	___ ___
h. CHEM 337 (2)	h.	___ ___	___ ___
i. CHEM 422 (3)	i.	___ ___	___ ___
j. CHEM 423 (2)	j.	___ ___	___ ___
k. CHEM 427 or CHEM 458 (circle choice) (3)	k.	___ ___	___ ___
l. CHEM 438 (3)	l.	___ ___	___ ___
m. CHEM 441 or CHEM 446 (circle choice) (3)	m.	___ ___	___ ___
n. CHEM 463 (4)	n.	___ ___	___ ___
o. CHEM 445 or CHEM 465 (writing intensive course) (circle choice) (2)	o.	___ ___	___ ___
p. MATH 113 (4)	p.	___ ___	___ ___
q. MATH 114 (4)	q.	___ ___	___ ___
r. MATH 213 (3)	r.	___ ___	___ ___
s. PHYS 160/161; PHYS 260/261 (3,1; 3,1)	s.	___ ___	___ ___
t. Seven to eight credits from one of the following options (circle choice) (7-8): GEOL 101, GEOL 309 (4,3) or EVPP 110, EVPP 111 (4,4) or CHEM 341 (3) and at least four credits from: CHEM 355, CHEM 451, CHEM 452 (1-3)			

Students majoring in chemistry must complete the chemistry program requirements with a minimum GPA of 2.30 and present no more than two courses with a grade of D (1.00) in CHEM coursework at graduation.

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 2016-2017 Catalog; the University Catalog is the official reference for program requirements.

COURSE LISTS (CHEMISTRY, BS, CONCENTRATION IN ANALYTICAL AND ENVIRONMENTAL CHEMISTRY)

Mason Core Requirements

Written Communication: ENGH 101 (or 100) and ENGH 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://math.gmu.edu/placement_test.php)

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 320, 325; JAPA 340; KORE 311; 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, 370, 372, 373, 376; AVT 103, 104, 215, 222, 232, 243, 252, 253, 262, 272, 385; DANC 101, 119, 125, 131, 145, 161, 225, 231, 245, 301, 325, 331, 345, 425, 445, 390, 391; ENGH 370, 372, 396; FAVS 225; GAME 101; MUSI 100, 101, 102, 107, 280, 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: HIST 101, 102, 301, 302, 304, 305, 306, 308, 309, 312, 314, 322, 388, 436, 480; and the following courses for HIST 125: HIST 202, 387.

Social and Behavioral Sciences: AFAM 200; ANTH 114, 120, 135, 363, 372, 396; BUS 100; CONF 101; CONS 410; CRIM 100; ECON 100, 103, 104, 105, 367; EDUC 203, 372; GGS 103; GOVT 101, 103, 367; HEAL 230; HIST 121, 122; LING 306; PSYC 100, 211, 231; SOCI 101, 352, 355; TOUR 311; WMST 200

Natural Sciences: CHEM 211/213, CHEM 212/214

Global Understanding: ANTH 302, 306, 307, 308, 309, 311, 312, 313, 316, 331, 332; ARTH 319, 320, 380, 382, 383, 384, 385, 386; BUS 200; CEIE 100; COMM 305, 456; CRIM 405; DANC 118, 318, 418; ECON 360, 361, 362, 380, 390; ENGH 362, 366; FAVS 300; FRLN 331; GCH 205; GGS 101; GLOA 101; GOVT 132, 133; HIST 251, 252, 261, 262, 271, 272, 281, 282, 328, 329, 356, 357, 358, 360, 364, 365, 387, 460, 462; JAPA 310; MBUS 305; MUSI 103, 431; PHIL 243; PSYC 379; RELI 100, 211, 212, 313, 315, 320, 322, 341, 374; RUSS 354; SOCI 120, 320, 332; SPAN 322, 466; SYST 202; THR 359, TOUR 210; WMST 100

Information Technology: **One of these courses**: ANTH 395, CDS 130, CS 100, GOVT 300, HIST 390, IT 104, MIS 303, MUSI 259 **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 385, 497, 498; BENG 492, 493; BINF 354; BIOL 301; BIS 490; BUS 498; CEIE 490; COMM 326, 362, 454; CONF 490; CONS 490, 491; CRIM 495; CS 306; DANC 490; ECE 492, 493; ECON 309; EDCI 490; EVPP 480; FAVS 352; FRLN 385; GAME 490; GCH 465; GEOL 420; GGS 303, 304; GOVT 490, 491; HAP 465; HDFS 400; HIST 300, 499; INTS 308; IT 492; LAS 499; MATH 400; MUSI 490; NURS 465; PHIL 309, 343, 377, 378, 379; PHYS 346; PROV 342; PSYC 405, 406, 427; RELI 490; RUSS 353; SOCI 377, 483; SOCW 375; SPAN 388; SYST 495; THR 440, 496