

## 4 YEAR PLAN FOR 2011-12 BIOLOGY MAJORS - CELLULAR AND MOLECULAR TRACK

CR	Fall - Year 1 (17 semester hours)	Prerequisites	Offered	CR	Spring - Year 1 (19 semester hours)	Prerequisites	Offered
1	BI 100 - Principles of Evolution & Ecology	n/a	F, S	3	Religion - RE 103, 205, or 211 Lower division course	n/a	F, S, Su
1	BI 104 - Digital Biology	n/a	F, S	3	COM 101 - Intro to Communication	n/a	F, S
1	BI 105L - Intro to Lab Techniques	n/a	F, S	3	History - any 100 or 200 level History course	n/a	F, S
4	BI 205/L - Cellular & Organismic Biology I & Lab	BI 100, 105 Concurrent	F	4	BI 206 & 206L - Cellular & Organismic Biology II & Lab	BI 100, 105L, 205	S
3	EN 101 - Intro to Expository Writing	n/a	F	3	EN 102 - Expository Writing	EN 101	F, S
3	MA 103 - College Algebra	n/a	F, S	3	MA 110 - Pre-Calculus	MA 103	F, S
3	Fine Arts course *	n/a	F, S	3	Philosophy - PH 100, 103, or 105	n/a	F, S, Su
1	CUH 100 - First Year Experience	n/a	F				
CR	Fall - Year 2 (18 semester hours)			CR	Spring - Year 2 (17 semester hours)		
4	BI 207 & 207L - Molecular Biology I & Lab	BI 206/L	F	4	BI 208 & 208L - Molecular Biology II & Lab	BI 207/L	S
2	BI 210L - Bio Techniques Lab I	BI 100, 105L, 206/L	F	2	BI 211L - Bio Techniques Lab II	BI 210L	S
5	CH 203 & 203L - General Chemistry I & Lab	MA 103	F	4	CH 204 & 204L - General Chemistry II & Lab	CH 203, MA 110	S
4	MA 210 - Calculus I	MA 110	F, S	4	MA 211 - Calculus II	MA 210	S
3	English Literature - EN 201, 255, or 256	EN 102	F, S, Su	3	Social Science course*	n/a	F, S
CR	Fall - Year 3 (18 semester hours)			CR	Spring - Year 3 (18 semester hours)		
3	Behavioral Science course*	n/a	F, S, Su	3	Global Awareness/FL course*	#, varies	F, S
2	BI 300 - Science Writing Seminar I	#, BI 206/L	F	2	BI 302 - Science Writing Seminar II	#, BI 300	S
3	BI 311 - Biostatistics	#, BI 206/L, MA 211	F	3	BI 312 - Epidemiology	BI 310, rec MA 311	S
5	PHY 251 and 251L - College Physics I & Lab	MA 210	F	5	PHY 252 and 252L - College Physics II & Lab	MA 211, PHY 251	S
5	CH 323 & 323L - Organic Chemistry & Lab	#, CH 204/L	F	5	CH 324 & 324L - Organic Chemistry II & Lab	#, CH 323/323L	S
CR	Fall - Year 4 (18 semester hours)			CR	Spring - Year 4 (18 semester hours)		
4	BI 320 & 320L - Developmental Biology I & Lab	#, BI 206/L, 208/L	F	4	BI 321 & 321L - Developmental Biology II & Lab	#, BI 320/L	S
4	BI 410 & 410L - Physiology I & Lab	#, BI 208/L	F	4	BI 411 & 411L - Physiology II & Lab	#, BI 410/L	S
3	BI 420 - Systems Biology	#, BI 208/L, 311	see advisor	3	BI 495 - Research I	#, SR, advisor consent	see advisor
4	Major elective course	#, varies	F, S	4	Major elective course	#, varies	F, S
3	Religion - any 300 level Religion course	#, 100-200 level RE	F, S, Su	3	Interdisciplinary course*	#, varies	F, S, Su
	Other Electives				Two major elective chosen with the approval of the major advisor.		

TOTAL SEMESTER HOURS REQUIRED = 120 (students in some majors may exceed 120 in order to meet all requirements)

NOTE: This plan is just a guide. Each individual plan may vary.  
"SU" courses are not guaranteed to be offered every summer.

Prerequisite courses require a grade of 'C' or better.

For detailed information and course descriptions consult [www.chaminade.edu/catalog](http://www.chaminade.edu/catalog)  
# - EN 102 & COM 101 are prerequisite courses for ALL 300-400 level courses.

\* see back for more details

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### GENERAL EDUCATION REQUIREMENTS DETAILS

**BEHAVIORAL SCIENCE** (choose any ONE of the following)

AN 200, CJ 201, ENV 100, PSY 101, SO 200 or CLEP II

**FINE ARTS** (choose any ONE of the following)

AR 101, AR 103, AR 111, AR 201, AR 202, AR 250, AR 255, PAR 100, PAR 101, PAR 102, PAR 201, PAR 204, PAR 205, PAR 208, PAR 210 or CLEP IV

**GLOBAL AWARENESS** (choose any ONE of the following) **OR Second Semester of a Foreign Language**

AN 340, AN 350, AN 357, AN 360, COM 310, EN 305, EN 422, HI 342, HI 344, HI 442, HI 443, HI 444, HI 450, HI 451, HI 452, HI 453, PH 475, POL 342, POL 344, POL 442, POL 444, POL 451, POL 453, PSY 436, PSY 475, PSY 476, PSY 477, PSY 478, PSY 479, RE 357, RE 359, RE 365, RE 450, RE 460, RE 461, RE 469, RE 471, RE 472, RE 475, RE 476, RE 477, RE 478, SO 331, SO 401

**INTERDISCIPLINARY** (choose any ONE of the following)

CJ/RE 435, COM/RE 433, EN 307, ENV/RE 431, GE/ID 335, HI/POL 305, HI/RE 322, HI/POL 324, HI/POL 442, HI/POL 444, PH/RE/SO 305, PH/SO 360, PH/RE 425, PH/PSY 471, PH/PSY/RE 475, PSY/RE 476, PSY/RE 477, PSY/RE 478, PH/PSY/RE 463, RE/PH 473, PH/RE/SO 338

**MATHEMATICS**

Requirement varies based on major. Consult specific program requirements.

**NATURAL SCIENCES**

TWO courses, including TWO LABS in Biology, Environmental Studies, Chemistry, or Physics or CLEP III and ONE course W/LAB

See below for science courses for non-science majors.

**SOCIAL SCIENCE** (choose any ONE of the following)

EC 201, GE 102, GE 103, HI 201, HI 202, POL 111, POL 211

**UPPER DIVISION ELECTIVES**

Any upper division (300 or 400 level) courses taken outside the major for which prerequisites are satisfied

### NATURAL SCIENCE COURSES FOR NON-SCIENCE MAJORS

BI 101 & 101L, BI 102 & 102L, BI 103 & 103L, BI 110 & 110L, BI 115 & 115L, BI 130 & 130L, BI 131 & 131L, CH 102 & 102L, CH 107 & 107L, ENV 115 & ENV 115L, ENV 201 & 201L, ENV 202 & 202L, PHY 111 & 111L, PHY 140 & 140L

### GRADUATION REQUIREMENTS

- ~ Satisfied all core curriculum requirements including nine credits of upper division course work outside the disciplines required for the declared major and the interdisciplinary course
- ~ Satisfied all requirements for the major discipline
- ~ Completed a minimum of 45 upper division credits
- ~ Achieved a minimum GPA of 2.0 (some majors may require a higher GPA)
- ~ Completed at least 30 semester hour credits in residence, including at least half of the credits in the major discipline
- ~ Completed a minimum of 120 semester hours