

Exercise Science

<http://www.pacificu.edu/as/exercise>

The Exercise Science (ExSci) program stresses the study of human movement from multiple, integrated scientific perspectives. All students majoring in ExSci will complete a common core of coursework and focus in one of the two emphasis areas. The **Integrative Physiology** path incorporates additional coursework from the parent disciplines in the natural sciences whereas the **Motor Behavior** track highlights behavioral and applied considerations related to various aspects of movement. Courses with the EXIP prefix satisfy natural science core requirements. Both routes, in combination with strategic selection of elective and core courses that satisfy specified prerequisites, can serve students with aspirations of pursuing additional studies in health professions (PT, OT, PA, AT, DC, MD, OD, ND), education (MAT) or science (MS, PhD). While a health-science context is emphasized, the curriculum also enables students to be successful in a variety of employment arenas (fitness and recreation industry, cardiac rehab, ergonomics, coaching).

Several courses are mandatory prerequisites to multiple ExSci courses and it is absolutely essential that students register for those at the proper time. The most crucial are listed below (and highlighted in the following schedule models).

Complete by end of Freshman year:

MATH 125 (or equivalent)

BIOL 202 is to be completed in the freshman spring

Complete by end of Sophomore year:

EXMB 200 is a gateway course for majors & minors taken sophomore fall

BIOL 224 & 240 is another majors & minors gateway taken sophomore year

Students and advisors should also note that the Chemistry I & II, Human Anatomy & Physiology and Physics I (& II, though not a major requirement) sequences run Fall→Spring only. Conversely, the introductory Biology sequence runs Spring→Fall.

Several ExSci classes are offered both semesters: Biomechanics (EXIP 345), Perceptual Motor Learning (EXIP 365), Exercise Physiology (EXIP 385), and Nutrition (EXIP 281). Courses frequently used or specified to meet major requirements are offered only annually: Advanced Human Anatomy (EXIP 440); Sport in Society (EXMB 336); Human Motor Development (EXMB 366); Sport Psychology (EXMB 333); Adapted PE (EXMB 315). Students and advisors should plan accordingly to ensure a timely progression to graduation.

Another critical scheduling consideration relates to our “Advanced” courses (EXIP 425, 445, 465 and 485) in which an original research project is planned and conducted to satisfy the Capstone requirement. These are offered fall term only. Each requires completion of [1] the 300-level version of the topic, [2] Statistics, [3] current First Aid certification and [4] instructor consent. **Thus, all ExSci majors should aim to complete Statistics and the majority of the “ExSci core” classes by the end of the junior year so as to be ready for Capstones.**

Special note for TRANSFER students. We expect “true” junior-level transfers minimally to have completed the introductory anatomy & physiology (A&P) and math sequences. Ideally, the biology, chemistry, and physics coursework would be completed, too. Without A&P and math, however, the student is functionally a sophomore. **Transfer students with A&P and**

math prerequisites accomplished are strongly encouraged to enroll in EXMB 200 and EXIP 385 during their first fall term. EXIP 345 and 365 should be taken the following spring.

TERM	EXMB EMPHASIS	EXIP EMPHASIS (Math starting point)	
		EXIP (Math 125 or +)	EXIP (Math122)
Year 1 Fall	EXMB 100 HUM 100 MATH 122 or 125 (as needed)	EXMB 100 HUM 100 MATH 125 (if needed) CHEM 220	EXMB 100 HUM 100 MATH 122
Year 1 Spring	BIOL 202 MATH 125 (if needed)	BIOL 202 CHEM 230	BIOL 202 MATH 125
Year 2 Fall	EXMB 200 BIOL 224	EXMB 200 BIOL 224 BIOL 204	EXMB 200 BIOL 224 CHEM 220
Year 2 Spring	BIOL 240 EXIP 345 or 365	BIOL 240 EXIP 345 or 365	BIOL 240 EXIP 345 or 365 CHEM 230
Year 3 Fall	1 or more from among SOC 301, EXIP 281 & 300-level EXIP/MB courses	PHYS 202 1 or more from among SOC 301*, EXIP 281 & 300-level EXIP/MB courses	BIOL 204 PHYS 202 1 or more from among SOC 301*, EXIP 281 & 300-level EXIP/MB courses
Year 3 Spring	Complete SOC 301 & most of the 300-level EXIP/MB Capstone pre-req courses by end of this term	Complete SOC 301 & most of the 300-level EXIP/MB Capstone pre-req courses by end of this term	Complete SOC 301 & most of the 300-level EXIP/MB Capstone pre-req courses by end of this term
<ul style="list-style-type: none"> • SOC 301 is the recommended statistics course; MATH 207 or PSY 350 are fine, too. • MATH 125 is a prerequisite for EXMB 200, EXIP 345, PHY 202, & CHEM 230 • The specific listings for each term generally do not constitute a full course load; complete schedules with strategic selections to meet core, electives, & other requirements or goals. 			