

What About Medical School?

Whether you pursue a career in medicine or expand on concepts within the discipline as a future Army Officer, the embedded coursework will meet all medical school prerequisites and provide training in the development of skill sets which can be applied at either destination. We welcome those eager to learn critical analysis skills and who enjoy solving problems.



What About AIADs?

We offer Individual Academic Development opportunities across the world. Whether you desire research experience with National Laboratories, DoD research facilities, Physician Shadowing, or Coalition Partners, we have a variety of experiences.

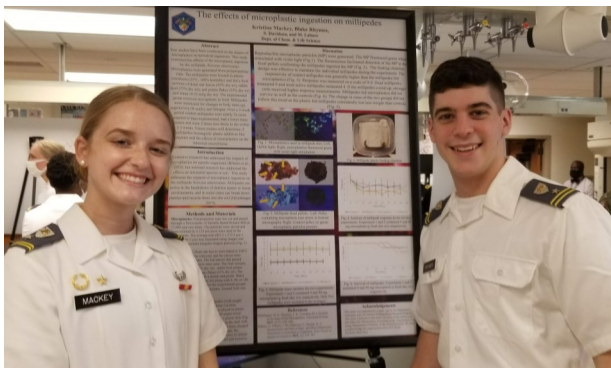


Enhance Your Future Now

Our goal is to develop cadets with a firm foundation in the fundamentals of biology, physical sciences, investigative techniques, and problem solving skills. We aim to establish and improve scientific literacy, improve written and verbal communication skills, and provide studies relevant to the Profession of Arms. We achieve this goal through a rigorous academic program, small classes, and a robust laboratory program. Typical classes will have less than 20 cadets, emphasize cadet preparation, concentrate on applying learned concepts, and focus on complex problem solving.

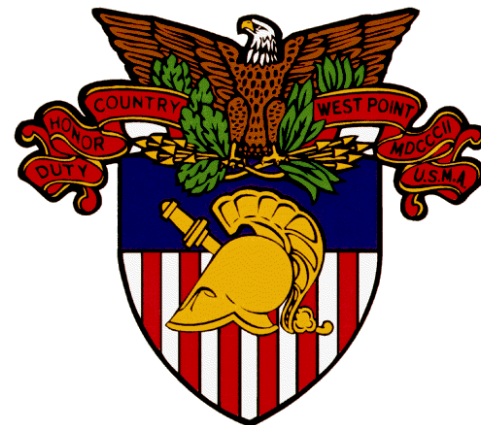
What Types of Research?

We build upon a diverse set of faculty expertise to offer options across the molecular, biomechanical, and cellular disciplines, to name a few. Cadets engage in the hands-on application of cutting edge science and have a proven record in national presentations and publications.



United States Military Academy

For more information:
COL Jason Barnhill PhD, Life Science Program Director
Department of Chemistry and Life Science
MADN-CLS, Bartlett Hall, Room 440B
West Point, NY 10996 845-938-5815



Department of Chemistry and Life Science



Life Science Major



“Teaching Through Research”

Life Science

Life Scientists study the structure and processes of living organisms using the unifying principles of life: cell theory, evolution, genetics, and homeostasis.

Military Applications of Life Science. The most important “system” in the Army is the human Soldier. Because the Soldier is a biological system, life science, biotechnology, and medicine offer unique potential for enhancing the performance of this most complex, critical, and costly of the Army’s systems.

Careers in Life Science. We are a group who solve complex, often ill-defined, problems. Whether you are primarily interested in a career in medicine, research, or leadership within the Army, our majors do all of these. There are multiple opportunities available within many branches for life scientists to apply technical expertise.

Teaching Through Research. We offer research experiences in multiple science disciplines based on the expertise of our civilian and military faculty. These courses can begin as early as plebe year and continue each semester.

Success of our Life Scientists. Our cadets have proven success with National Scholarships, Fellowships, and Medical School Admission. We commission Leaders who serve at all echelons of the Army.



(left) CDT Kalei Hering (Class of 2021) was a Goldwater Scholarship Winner, President of the Premedical Society, and is now medical student at Harvard Medical School.

What will my schedule look like?

	Plebe		Yearling	
	Fall	Spring	Fall	Spring
Science	CH101	CH102	CH375	CH388
			CH383	CH384
			PH205	PH206
			EV203	
Core	MA103	MA104		MA205
	EN101	EN102	PY201	SS202
	IT105	PL100		
	HI105	HI108		
Research (optional)	CH289	CH290	CH389	CH390
Honors				

Becoming a Life Science Major. The Life Science Program is capped at 36 majors per year. The OML will be based on your overall academic GPA, CH101/151 and other STEM course grades, and extracurricular activities. An overall minimum GPA of 3.2 is expected to be competitive for selection.

Curriculum. A Life Science Major must complete 40 courses: 27 core courses, including an engineering sequence, and 11 life science courses (9 required + 2 electives).

Independent Research. These immersive experiences, as early as plebe year, partner cadets with faculty to engage in contemporary applications of course content.



8-Term Academic Plan (8TAP)

Cow		Firstie	
Fall	Spring	Fall	Spring
CH385	CH387	CH457	CH479
	CH473	Elect 1	Elect 2
CES1	CES2	CES3	
MA206			
SS201	PL300	SS307	CY305
		MX400	LW403
DFL1	DFL2		HI302
CH391	CH392	CH489	CH490
		CH489	CH490

Required Courses (9):

CH375 Advanced Biology
 CH383 Organic Chemistry I
 CH384 Organic Chemistry II
 CH385 Introduction to Cell Biology
 CH387 Human Physiology
 CH388 Genetics
 CH457 Microbiology
 CH473 Biochemistry
 CH479 Biotechnology

Electives (2):

CH362 Mass and Energy Balances
 CH364 Chemical Reaction Engineering
 CH399 Special Topics in Life Science
 CH376 Microscopy
 CH450 Bioengineering (Spring)
 CH460 Human Anatomy (Spring)
 CH371 Analytical Chemistry
 CH499 Special Topics in Life Science
 PL390 Biological Psychology

Research (optional):

CH289/290; CH389/390; CH489/490