

UNITED STATES MILITARY ACADEMY
West Point, New York
Office of the Dean


3 September 1964

MEMBERS OF THE CLASS OF 1968:

In my orientation today I have given you a great deal of information--more, probably, than most of you could assimilate in such a short time. For this reason there are presented in this pamphlet a few of the principal facts and ideas of which you should be fully aware. Read them carefully and if they arouse questions, ask them and we shall furnish answers. My office is always available to you in this respect and you should not hesitate to make use of the counsel we offer.

It is well to remember that the education and training you will receive in the next four years have but one primary purpose; to make you the qualified, enlightened and dedicated military leaders into whose hands the lives of men, and indeed the very life of our nation can be entrusted confidently. Each phase of your program at West Point--academic, military, physical, and moral, is essential to your preparation for the honorable and ancient military profession. To regard these four elements as distinct and unrelated, or to cast any of them in a secondary role would indeed be a tragic error.

The Academic Program which you are about to begin will proceed at a rapid pace. Resolve here and now to keep up, in fact to lead the race. You gentlemen stand now on the threshold of one of the finest opportunities of your adult lives. Don't waste it.



WM. W. BESSEHL, JR.
Brigadier General, USA
Dean of the Academic Board

NOTES FOR THE FOURTH CLASS ON
ACADEMIC PROGRAMS
of the
UNITED STATES MILITARY ACADEMY

OBJECTIVES

The courses which make up the Academic Programs of the Academy are designed to accomplish the following four objectives:

1. To provide carefully designed, modulated and integrated sequential programs in the arts and sciences useful to the career officer.
2. To provide a strong educational foundation for later graduate study, military and civilian.
3. To challenge each cadet and motivate him to go as far, wide, deep, and fast as he is able.
4. To provide ways for each cadet to pursue his own personal educational aptitudes, interests and desires.

THE ACADEMIC COURSES OF INSTRUCTION

To meet these objectives four kinds of courses are offered: Standard, Advanced, Accelerated, and Elective. The Standard Courses of the four years together constitute the prescribed Core Curriculum of the "Standard Academic Program." These courses are designed to provide the graduate with the core of knowledge of mathematics, the basic and applied sciences, engineering analysis and design, our own and another language, and the social sciences and humanities -- all judged to be needed by the graduate. For almost every one of these standard courses there is a corresponding advanced version, an "Advanced Course." In the First Class year "Honors Courses" are offered to a limited number of selected cadets. In these courses the cadet investigates thoroughly and reports on a topic selected by him and approved by the Department Head concerned. In the Honors Courses the cadet will work directly with a designated faculty member. The Advanced Courses are part of the "Advanced Studies Program." The standard and advanced courses currently offered are listed at the end of this paper. Whether taking standard or advanced courses, every cadet will be able to select four elective courses from those offered in the Electives Program. Time for these four one-semester electives has been provided in the last two years of the four-year program. A list of the electives currently offered in the Electives Program is at the end of this paper. A description of the "Programs in Depth" offered as an important part of the Electives Program is contained in a later paragraph of this paper.

VALIDATION AND QUALIFICATION

A cadet may be declared eligible to take an advanced, elective or honors course in place of a standard one. Determination of eligibility therefor is made by the Department Head concerned. It may be based on previous completion of a course equivalent to the standard course, by completing a validating or qualifying examination, by demonstrated knowledge and ability or by any combination of these. It should be noted that prior formal schooling in the subject area of a course is not necessarily a prerequisite for eligibility to take a course in lieu thereof. For example, a member of the Class of 1964 received credit for ME 303 (First Term Mechanics of Solids) on the basis of having completed an equivalent course, and then validated ME 304 (Second Term Mechanics of Solids) by passing a validating examination for which he had studied on his own.

In general, the cadet who validates standard courses will substitute therefor the next appropriate upper class standard course, but he may substitute an advanced or accelerated course in the same subject area or an elective course for which he has the necessary prerequisites.

Cadets are encouraged to broaden and deepen their West Point education by taking maximum advantage of the opportunities offered. It is interesting to note that two out of three members of the last two graduating classes have taken courses in addition to those in the Standard Program.

Possibilities are open to members of the Fourth Class to enroll in courses beyond the standard courses in English, Mathematics, Foreign Languages and Engineering Fundamentals.

The prior academic records of each cadet are carefully screened by the Academic Departments to determine those cadets eligible to pursue advanced work. Cadets found to be eligible for advanced work are so advised and counseled concerning appropriate substitute courses. This process has already been completed for members of the new Fourth Class and they have been advised of their assignments to courses for the Fall Term.

Any Fourth Classman who has not been advised by 1 December that he is under consideration for advanced work in the Spring Term and believes he is eligible therefor, or who would like to try for such eligibility, should make his desires known to the proper department or to the Dean.

PROGRAMS IN DEPTH

The privilege of taking four one-semester elective courses during the last two years at the Academy includes the opportunity to schedule these courses in a selected educational area. A sequence of four one-semester elective courses is known as a "Program in Depth." A list of the Programs in Depth currently being offered to the Second Class follows:

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English
Mathematics
Foreign Languages
Physics & Chemistry
Electricity & Nuclear Physics
Military Studies
International & National Security Affairs
Engineering Science
Civil Engineering
Nuclear Engineering
Ordnance Engineering

You will decide during the Spring of Third Class year which Program in Depth you wish to pursue, if any.

GRADUATE STUDY AT CIVILIAN COLLEGES AND UNIVERSITIES

Approximately one-half of the USMA graduates since 1940 have pursued graduate study at civilian colleges and universities under Army sponsorship. The studies have been in areas where the Army has a definite need for specialists. These subject areas are many in number and include such fields as civil engineering, nuclear science, business management, journalism and international relations. It is extremely likely that in the future as many as three out of four USMA graduates will go on to graduate school. Quite plainly, advanced schooling has become a part of the normal career pattern for a large proportion of Army officers. It must be realized, however, that pursuit of advanced schooling is not an objective in and of itself.

The broad basic academic courses in the arts and sciences offered at the Academy, augmented where practicable by advanced and elective courses, are intended also to meet to the maximum degree practicable the basic prerequisites of the varied civilian college graduate courses sponsored by the Army.

With the exception of cadets who win certain scholarships, the majority of advanced schooling will be obtained between the third and tenth year of commissioned service. Consistent with the needs of the service, assignment in advanced schooling, courses of study and schools are determined by individual preferences and individual performances, both as a cadet and as an officer. Graduate schools are becoming increasingly selective in screening applicants for admission. Great weight is placed on undergraduate performance. Other factors which bear on selection for graduate schooling are the scores achieved on the Graduate Record Examination given near the end of First Class year and overall performance after graduation from the Military Academy.

TRANSCRIPTS OF USMA ACADEMIC RECORDS

A transcript of the academic record of each cadet will show clearly transfer credits for validated courses and earned credits for courses taken at the Academy. This transcript will be one of the first documents to be placed in the official personnel

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file of Academy graduates. Another early personnel file record of importance to each USMA graduate is the report of his score on the Graduate Record Examination.

POSTING OF GRADES -- NOTICES TO PARENTS

Grades are posted weekly so that a cadet may know how well he is doing in his academic studies. Furthermore, reports of each cadet's progress are sent to his parents three times each semester.

RECOGNITION OF ACADEMIC EXCELLENCE

Excellence in academic studies at the Academy is rewarded in many ways in addition to the great self-satisfaction that it generates. These include making the Dean's List at each of the three reporting periods of each semester. This means being in the top 30 percent of the class, with no grades in academic subjects below 2.2. With being on the Dean's List go extra privileges such as educational trips, and extra weekend leaves for upper classmen.

Important also is being designated a "Distinguished Cadet" for each academic year -- being in the top 5 percent of the class and hence authorized to wear the gold star on the collar. Particularly important is being designated a "Distinguished Graduate" at graduation -- the top 5% of the Class for the entire four-year course. With this now goes the guarantee of graduate schooling at any time, including immediately after graduation.

Several things depend on order of merit at graduation. One is selection of branch of service. Another is promotion after graduation.

COUNSELING

There is in each cadet company an academic sergeant whose duties include assisting cadets in resolving academic program and scheduling problems.

Counseling on academic programs, eligibility for advanced courses, elective courses and programs in depth is always available in the academic department concerned and in the Office of the Dean. Cadets should not hesitate to avail themselves of this guidance. The important points are to take maximum advantage of every offering to deepen and broaden one's education and to do one's very best. For the new Fourth Class it is important to get a good start, to learn to budget study time, and never to be content with mediocrity. Get the most of the best.

GLOSSARY OF TERMS

SUBJECT: A division or field of organized knowledge such as English or Mathematics.

COURSE: Organized subject matter in which instruction is offered within a specified period of time (normally one term) and for which credit toward graduation is normally given. Courses are identified by Department or subject, number, and name; e. g., Mathematics 202, Differential Equations.

STANDARD COURSE: A prescribed course which fulfills the minimum requirements for graduation in a particular subject.

ADVANCED COURSE:

a. A course which includes subject matter which is significantly broader and more comprehensive in scope and/or provides more thorough and penetrating development of subject matter than the corresponding standard course. This definition implies that the Advanced Course will have distinctly different and more comprehensive study assignments and/or more erudite texts than the Standard Course. Courses which merely assign, to selected cadets, additional lessons in lieu of WGR's are not considered to be Advanced Courses.

b. Loosely, any course which exceeds the requirements of the corresponding standard course. In this sense, "advanced course" includes "accelerated course," "honors course," and "advanced course" in the first sense.

ACCELERATED COURSE: A course which covers only the subject matter of a standard course but covers it in significantly less time.

HONORS COURSE: A course in which enrollment is limited to exceptionally capable students; which may free the student from regular classroom attendance; and which emphasizes independent work, reading, study and investigation. Advanced, accelerated and elective courses may be conducted as honors courses.

ELECTIVE COURSE: Any of a number of courses from which a cadet is allowed to select. Advanced and accelerated courses are not considered to be elective courses even though a cadet may be allowed a choice thereof in lieu of the corresponding standard course.

PROGRAM IN DEPTH: A sequence of four one-semester elective courses in a particular educational area.

SUBSTITUTE COURSE: A course which a cadet pursues in lieu of a standard course as a result of validation or qualification.

ADDITIONAL ELECTIVE: An elective which a cadet pursues voluntarily in addition to the prescribed course load.

CORE CURRICULUM: All standard courses.

QUALIFICATION: The granting to a cadet of permission, based on previous partial coverage of subject matter and/or on demonstrated ability; to take the corresponding advanced, accelerated, or honors course, or a suitable elective, in lieu of a standard course; or to take an additional elective course.

VALIDATION: The acceptance of successful prior completion of an equivalent course and/or demonstrated proficiency therein in lieu of actual pursuit of a standard course.

STANDARD ACADEMIC PROGRAM: The core curriculum plus the prescribed number of electives.

ADVANCED STUDIES PROGRAM: The academic program which exceeds, in breadth and/or depth, the requirements of the Standard Academic Program and which a cadet pursues by reason of validation and/or qualification.

CREDIT HOUR: A unit used in measuring and recording the work completed by a cadet. For academic work one credit hour represents approximately one classroom hour per week for one term.

GRADE POINT: The product of course credit hours and course grade.

GRADE POINT AVERAGE: The sum of grade points divided by the sum of credit hours. Grade point average is used to determine the order of merit of cadets.

ORDER OF MERIT: The relative standing, expressed numerically; e.g., 1/160, 325/326, of a cadet within his class, or among those cadets taking a given course.

USMA STANDARD AND ADVANCED COURSES

	STANDARD	ADVANCED
4th Class	Engineering Fundamentals	Advanced Engineering Fundamentals
	Environment	
	English Composition	Evolution of American Ideals
	Foreign Languages	Advanced French, German, or Spanish
	Mathematics	Advanced Mathematics
3d Class	Chemistry	Inorganic Chemistry
	Comparative Literature	
	Foreign Languages	Advanced French, German, or Spanish
	History of Europe & America:	
	1500-1870	Middle Eastern Studies *
	History of Europe & America . .	History of Russia *
	since 1870	Latin American Studies *
		History of U. S. Foreign Relations *
	Mathematics	Advanced Mathematics
	Physics	Advanced Physics
	Psychology	
2d Class	Atomic and Nuclear Physics	
	Economics	Comparative Economic Systems *
	Electrical Science	Advanced Circuits
		Electromagnetic Fields
		Energy Conversion
	Electives (2)	Additional Electives
	Law	
	Mechanics of Fluids	Advanced Fluid Mechanics
	Mechanics of Solids	Advanced Engineering Mechanics
	Thermodynamics	Accelerated Thermodynamics
		Classical Thermodynamics
	U. S. Government	Political Philosophy *
1st Class	Civil Engineering	Honors Course in Civil Engineering
		Introduction to Nuclear Engineering
	Contemporary Foreign Govts	
	Electives (2)	Additional Electives
	History of Military Art	
	History of Modern Asia	
	International Relations	National Security Problems *
		Problems of Developing Nations *
	Literature & Adv Exposition	
	Military Leadership	
	Ordnance Engineering	Honors Course in Ordnance Engineering

* Also offered as an elective course.

ELECTIVE COURSES

The Elective Courses listed below will be taught during AY 1964-65. They are designed to add breadth and depth to the Curriculum. Each cadet will take four of these one-term electives as part of the Standard Academic Program.

Graphical Computations	The Novel
Power Circuits & Machinery	Contemporary Literature
Electronic Circuits	Shakespeare
Solid State Electronics	English Literature from 1660
Nuclear Physics	to the Present
Nuclear Reactor Theory	American Literature of the
Digital Computers	19th Century
Advanced Calculus I	Advanced Languages (French,
Advanced Calculus II	German, Spanish, Russian,
Differential Equations (Intermediate)	and Portuguese
Numerical Analysis with Electronic	Language Seminars (French,
Digital Computations	German and Spanish)
Gas Dynamics	International Law & the Military
Space Mechanics	Evolution of Modern Warfare
Strength of Materials	20th Century Warfare
Design of Concrete Structures	Military History of Insurgency
Advanced Structural Analysis	& Counterinsurgency
Soil Mechanics	History of Russia
Individual Ordnance Project	History of U. S. Foreign Relations
Automotive Engineering	Middle Eastern Studies
Individual Engineering Project	Latin American Studies
Engineering Materials	Comparative Economic Systems
Physical Chemistry I, II	Political Philosophy
Individual Chemistry Project	National Security Problems
Quantum Mechanics	Problems of the Developing Nations
Introduction to Theoretical	Management Engineering
Physics I, II	Human Relations: Managerial
	Psychology
	Sociology