UNITED STATES MILITARY ACADEMY

WEST POINT NEW YORK

CATALOG OF INFORMATION 1949-50

UNITED STATES MILITARY ACADEMY WEST POINT NEW YORK

CATALOG OF INFORMATION

1949–50

(Communications relating to matters connected with the Military Academy should be addressed to The Adjutant General, Department of the Army, Washington 25, D. C.)

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1949

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 1 September 1949

The following publication entitled "United States Military Academy, West Point, New York, Catalog of Information 1949–50," is published for the information of all concerned.

[AG 351.27 (5 Aug 49)]

BY ORDER OF THE SECRETARY OF THE ARMY:

J. LAWTON COLLINS
Chief of Staff, United States Army

OFFICIAL:
EDWARD F. WITSELL
Major General
The Adjutant General

CONTENTS

SECTION I—THE MILITARY ACADEMY: Page

1. Historical Sketch 1
2. Mission 6
3. Calendar 1948–49 6

SECTION II—APPOINTMENTS AND ADMISSIONS:

1. General 8
   - *a.* Admissions 8
   - *b.* Nominations and appointments 8
   - *c.* General requirements 8
   - *d.* Oaths required 9
2. Composition of the Corps of Cadets 10
3. Noncompetitive Appointments 10
   - *a.* Congressional 10
   - *b.* Vice Presidential 11
   - *c.* Panama Canal Zone 11
   - *d.* Sons of Congressional Medal of Honor winners 11
   - *e.* Foreign cadets 13
4. Competitive Appointments 14
   - *a.* Presidential 14
   - *b.* Regular Army and National Guard 14
   - *c.* Honor military schools 15
   - *d.* Sons of deceased veterans 15
5. Qualified Alternates and Qualified Competitors 16

SECTION III—QUALIFYING FOR ADMISSION:

1. General 18
2. Entrance Examinations 18
   - *a.* Regular examination 19
   - *b.* Special June examination 19
   - *c.* Examination schedule 20
3. Mental Requirements 20
   - *a.* General information as to certificates 20
   - *b.* U. S. History and West Point aptitude requirements 21
   - *c.* Qualifying by regular mental examination 21
   - *d.* Qualifying by certificate and validating examination 22
   - *e.* Qualifying by certificate and West Point aptitude test 22
   - *f.* Qualifying by certificate and record of examination by the college entrance examination board 23
   - *g.* No further mental requirement 23
   - *h.* Subjects and credits 23
   - *i.* Definitions and detailed requirements 24

Page

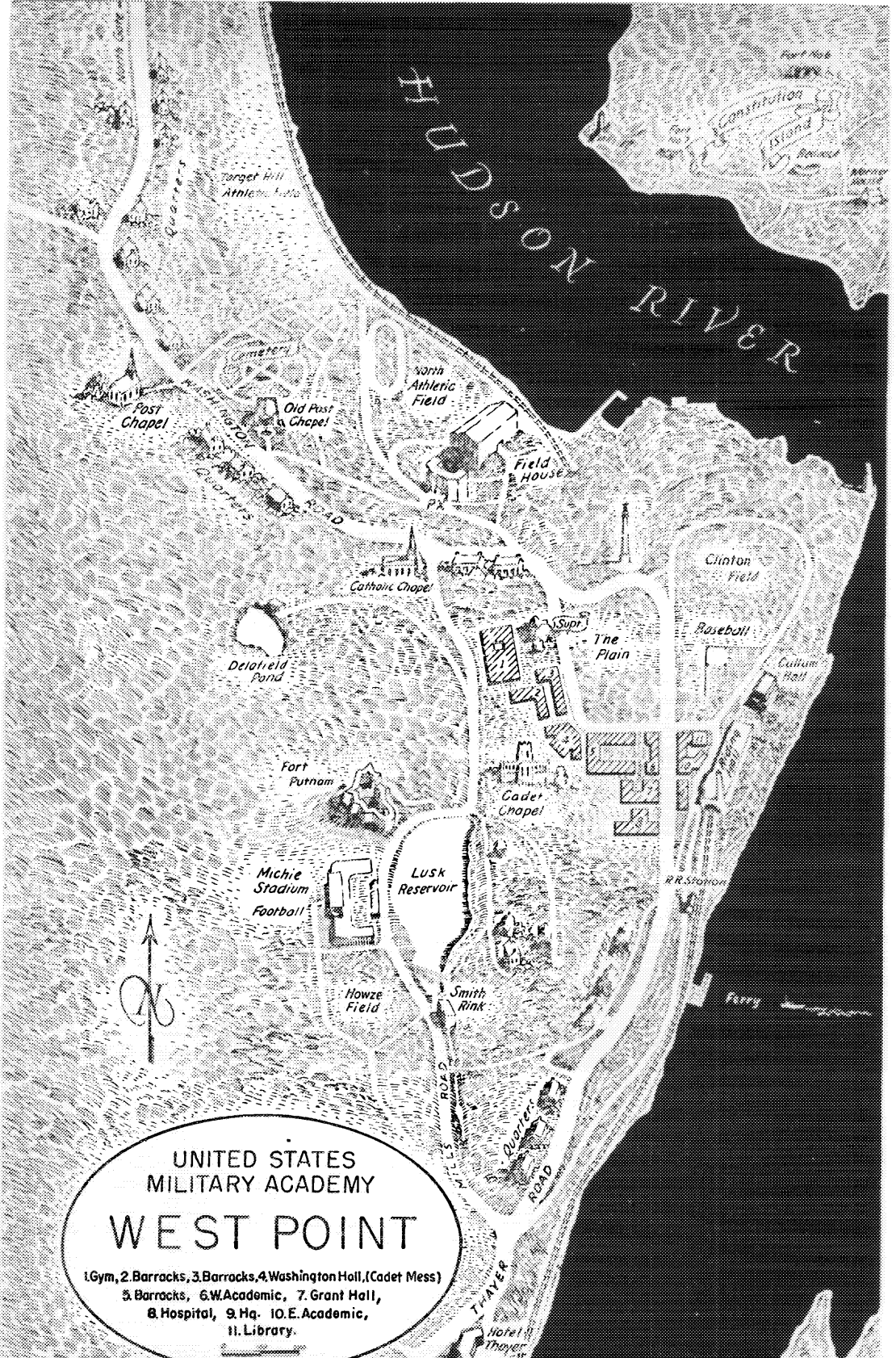
4. Physical Aptitude Requirements 27
5. Physical (Medical) Requirements 29
   a. Regular examination 29
   b. Preliminary examination 29
   c. Physical standards 32
   d. Additional causes for physical disqualification 34
6. Physical Conditioning 42
7. United States Military Academy Preparatory School 45

SECTION IV—ORGANIZATION AND ADMINISTRATION:
1. Direction and Supervision 48
2. Board of Visitors 48
3. Officers, Headquarters and Staff 48
4. Professors, Departments of Instruction 49

SECTION V—PROGRAM OF INSTRUCTION AND COURSE OF STUDIES:
1. General 53
   a. Courses of instruction 53
   b. Academic terms 53
   c. Term-end examinations 53
   d. Disposition of cadets found deficient in academic work or conduct 53
   e. Summer period 53
2. Program of Instruction 54
3. Schedule of Instruction 55
4. Departments of Instruction 59
   a. Mathematics 59
   b. Foreign languages 59
   c. English 59
   d. Military topography and graphics 59
   e. Physics and chemistry 59
   f. Mechanics 59
   g. Electricity 60
   h. Military hygiene 60
   i. Law 60
   j. Social sciences 60
   k. Ordnance 60
   l. Military art and engineering 60
   m. Tactics (including military leadership and physical education) 61
5. Lectures 62
6. Periodic Physical Examination 63
7. Degree 63
8. Academic Prizes and Special Awards for Military Proficiency 63
9. Special Athletic Awards 66
10. Annual Report of Distinguished Cadets 66
11. Promotion After Graduation 66
12. Leaves of Absence, Suspension of Academic and Military Duties 67
13. The Library 68
14. The Museum 68

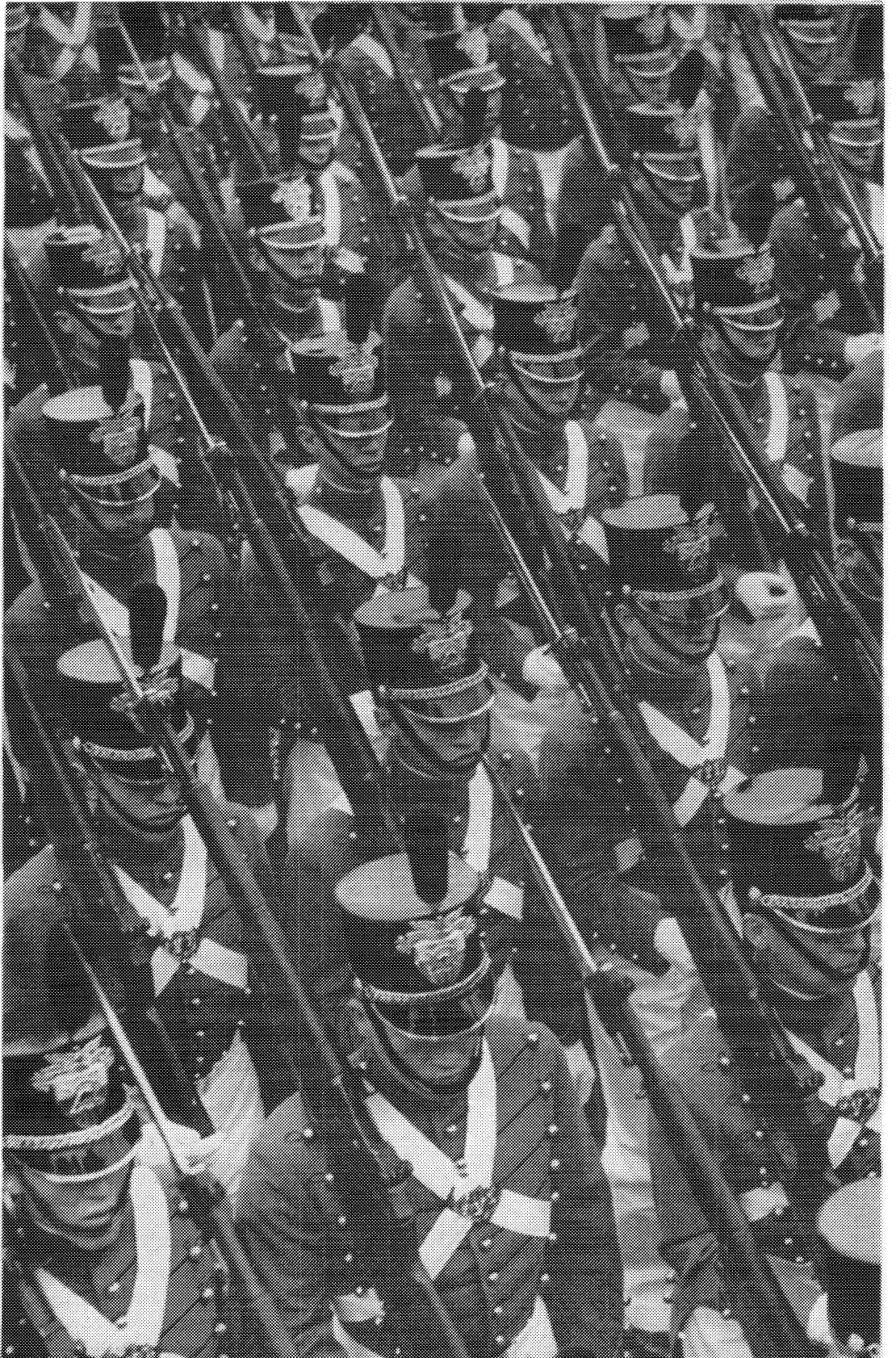
SECTION VI—GENERAL AND MISCELLANEOUS: Page
1. Pay and Allowances of Cadets 70
2. Mileage Allowance 70
3. Deposit Upon Entrance 70
4. Uniforms and Supplies 70
5. Activities and Social Life 71
6. Intercollegiate Athletics 72
7. Authorized Religious Activities 73
8. Association of Graduates, USMA 73

SECTION VII—DESCRIPTION OF ENTRANCE EXAMINATIONS:
1. Mathematics 75
2. English 76
3. United States History 77
4. West Point Aptitude Test 79
5. Sample Answer Sheet and Key 81


HUDSON RIVER
Target Hill
Athletic Field
Cemetery
Post Chapel
Old Post Chapel
North Athletic Field
Field House
Quarters
Catholic Chapel
Clinton Field
Supt.
The Plain
Baseball
Delafield Pond
Cullum Hall
Fort Putnam
Cadet Chapel
Michie Stadium
Football
Lusk Reservoir
R.R. Station
Howze Field
Smith Rink
Ferry
Quarters
THAYER ROAD
Hotel Thayer
UNITED STATES
MILITARY ACADEMY
WEST POINT
1. Gym, 2. Barracks, 3. Barracks, 4. Washington Hall, (Cadet Mess)
5. Barracks, 6. W. Academic, 7. Grant Hall,
8. Hospital, 9. Hq. 10. E. Academic,
11. Library.

SECTION I—THE MILITARY ACADEMY

	Page
1. Historical sketch	1
2. Mission	6
3. Calendar 1949–50	6



THE MILITARY ACADEMY

1. Historical Sketch

West Point was first occupied by troops during the Revolutionary War, on 20 January 1778. It is therefore the oldest of the United States military posts now in use. Because of its strategic importance in the defense of the Hudson River Valley and of the communications between the New England and Middle Atlantic States, it was heavily fortified. The story of Benedict Arnold's attempt to betray it is familiar to every American.

The proposal to found a military academy was first made by Brig. Gen. Henry Knox in 1776 and was seconded by Col. Alexander Hamilton and Gen. George Washington. The latter selected West Point as a suitable site and repeatedly urged upon Congress the necessity for establishing the Academy. Although several attempts to found a military school at West Point were made at various times from 1781 to 1794, they were unsuccessful because of inadequate provision of funds and facilities. Washington's last official letter, written only 2 days before his death, was a strong recommendation that a military academy be founded in order that the Nation might have a cadre of trained officers, the lack of which had been a serious handicap to him in the War of Independence.

The present Military Academy dates from the act of 16 March 1802 when Congress, yielding to President Jefferson's advice and considering the threat of war with France, authorized a Corps of Engineers, to consist of 5 officers and 10 cadets, and provided that it should be stationed at West Point, in the State of New York, and should constitute a Military Academy. The post then consisted of 1,795 acres which had been purchased from Stephen Moore in 1790, although it had been occupied by the Army ever since the Revolution. The barracks and other buildings on the site, while inadequate, were available for the new institution. Col. Jonathan Williams, grandnephew of Benjamin Franklin, was therefore able to open the Academy formally on 4 July 1802, with 10 cadets present for instruction.

Congress, having founded the Military Academy, took little interest in it for several years thereafter. Lacking funds, professors, and facilities, the Academy struggled on until the War of 1812. The declaration of war found it empty of both faculty and cadets, who had been dispersed to various assignments, while some hundreds of new appointments over a period of years were left invalidated by the Office of the Secretary of War. Nevertheless, the record of the war showed that the graduates, although too young to hold high command, performed creditably and

rendered important services as engineers. A quarter of the more than a hundred West Pointers engaged were killed or wounded. Not one of the fortifications constructed by them fell to the enemy; and their works were a decisive factor in winning the ultimate victory.

Spurred by the war crisis, Congress provided for the reorganization of the Military Academy by its act of 29 April 1812. A more adequate corps of professors was authorized, a maximum strength of 250 cadets was fixed, and age and mental requirements for admission were prescribed.

The Academy, however, did not flourish. In 1815 Congress failed to appropriate funds for its support; and its second superintendent, Maj. Joseph G. Swift, met the crisis by borrowing $65,000 from private sources on his own credit. Both administration and instruction suffered from the neglect occasioned by Swift's dual responsibility for the Academy and for the construction of harbor defenses elsewhere. Although the act of 1812 had provided a more adequate legal basis for the institution, Congress had failed to follow through with legislation to establish improved operating procedures.

The United States Military Academy, as it now exists, is largely the creation of Maj. (later Colonel) Sylvanus Thayer, who was appointed to the superintendency by President James Monroe. He assumed command on 28 July 1817 and immediately proceeded to inaugurate those features which have ever since characterized the West Point system. His achievements rightly earned for him the title of "Father of the Military Academy."

In general outline, Colonel Thayer's system was founded, first of all, on character. He insisted upon absolute honesty and complete integrity. Secondly, he established a curriculum as broad as was consistent with the primary demands of professional training. Lastly, he made it necessary for every cadet to exercise his own faculties to the utmost, to the end that his mind and character might attain their maximum development.

For many years West Point, aside from its military functions, was the only engineering school in the country; and until after the Civil War it was the only one to produce any considerable number of engineers. For this reason all of the main and transcontinental railroad lines were the work of West Pointers. The latter mapped the coasts, charted the harbors, built the lighthouses and coastal fortifications, surveyed frontiers, and constructed most of the important public improvements of that day.

Although there were no graduates among the general officers at the outbreak of the Mexican War, the services of West Pointers were so brilliant that Maj. Gen. Winfield Scott, the Commander-in-Chief, paid them a glowing tribute in which he assigned them the major share of credit for the victory. Robert E. Lee, Sherman, Sumner, Hooker,

McClellan, Grant, and "Stonewall" Jackson were among those who distinguished themselves.

In the Civil War, West Pointers again started in subordinate capacities in the Union Army, chiefly because of the Government's propensity for appointing "political generals" from civil life. Thanks to their training and ability, however, the graduates rose rapidly as the war progressed until, by January 1865, all of the general officers of the line were West Pointers. The Confederacy, on the other hand, was quick to take advantage of the services of graduates who adhered to its cause.

At the end of the Civil War, West Pointers were at the heads of the opposing armies. They had commanded the forces on at least one side, and usually on both sides, in every major engagement. Men like Lee, Grant, Sherman, and "Stonewall" Jackson had added new luster to the Academy's reputation.

In 1866, the diminishing national role of the Academy in engineering education and its broadening military responsibilities were recognized to the extent that line officers, as well as members of the Corps of Engineers, were made eligible for the superintendency. The transition was reflected in progressive changes in the curriculum which have continued to the present.

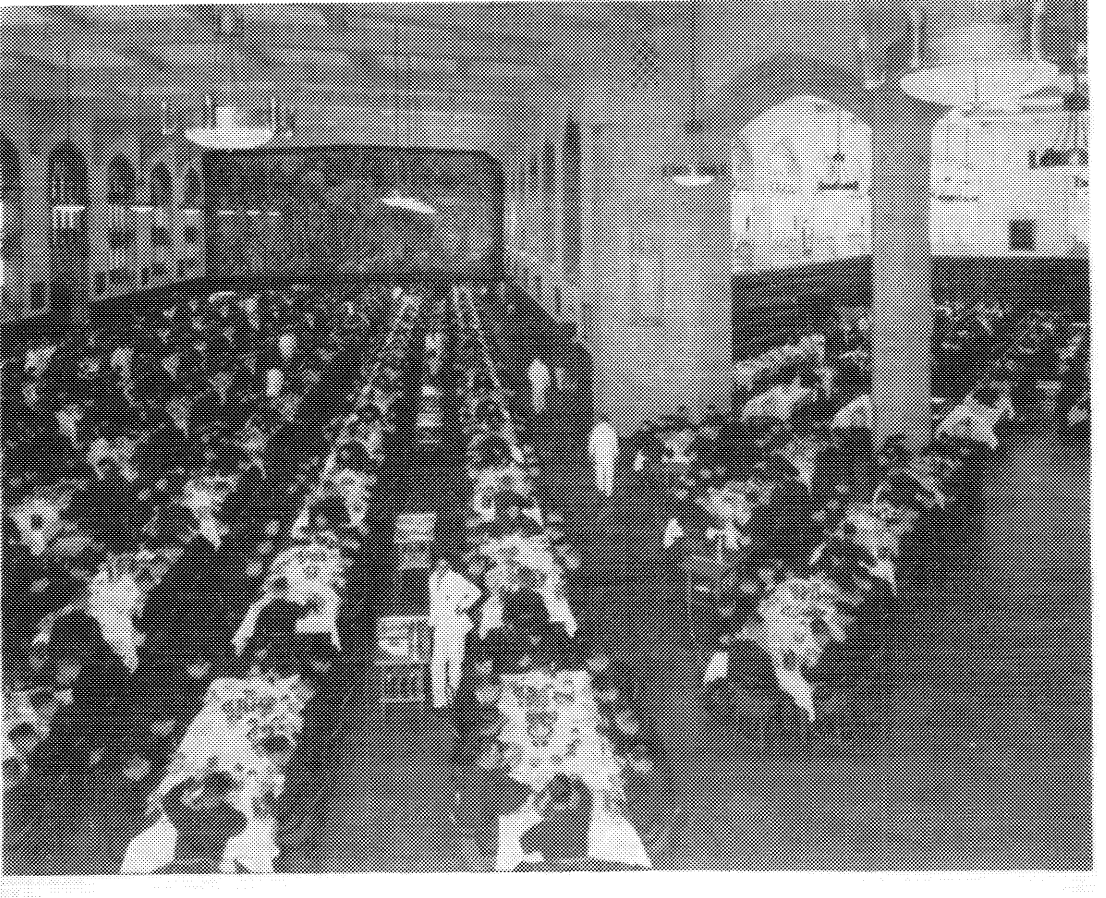
Graduates served on the frontiers, protecting settlers and controlling the Indians, until the Spanish-American War. In that conflict they again served with credit and performed a highly constructive task in governing Cuba and the Philippines for some years afterward.

The First World War once more put West Point to the test. Gen. Peyton C. March, the Chief of Staff, and Gen. John J. Pershing, the commander in France, were both graduates, as were Generals Liggett, Bullard, and Dickman, who commanded the field armies. Of the 38 corps and division commanders who commanded in France at the end of the war, 34 were West Pointers.

Early graduations during the war caused confusion and disruption of the Academy's curriculum. Only by 1921 was a return to the regular 4-year course possible.

The new curriculum was adopted after careful study of postwar conditions and consultation with civilian educators. New courses in economics and government were added, the time devoted to English was increased, and all courses were greatly improved. Military training was brought up-to-date, and a program of prescribed intramural athletics (the first in the country) was instituted.

On 22 June 1926, a separate Department of Economics, Government, and History was created in recognition of the increased importance of those subjects. Again, in 1931, a new Department of Physics was set up to take care of basic instruction in the natural sciences and to enable the other scientific departments to concentrate on more advanced work. The Department was permanently established by law on 26 May 1934.



Another extensive revision of the curriculum took place in 1933. Other developments followed: Closer contacts with civilian institutions, the granting of the degree of Bachelor of Science to graduates, more extensive employment of university training to prepare instructors for their duties, frequent invitations to outside lecturers, and an enlarged program of extra-curricular activities. The entrance requirements were revised so as to reduce the number of failures after admission. And, finally, the authorized strength of the Corps of Cadets was raised to 1,960 by the act of 7 June 1935.

Along with successive increases in the number of cadets since 1900, there have been corresponding building programs and expansions of the Academy's domain. Most of the Gothic buildings which give West Point its special architectural effect are the result of this development. Land purchases have increased the size of the reservation to 15,085 acres at West Point and 1,674 at nearby Stewart Field, where aviation training is given. Three additional areas in the general vicinity of Stewart Field were leased and developed for use as emergency landing fields.

During World War II, the confusion and the lowering of standards that had occurred at West Point during the First World War were avoided

by foresight and planning. The increased demand for West Point-trained officers was met by raising the authorized strength of the Corps of Cadets to 2,496 (act of 3 June 1942); by graduating the class of 1943 on 19 January of that year, and the class of 1944 on the first of the following June; and by reducing the length of the course to 3 years. A transition program was put into effect on 16 September 1942, which worked very smoothly.

Pursuant to the request of the Army Air Forces, West Point accelerated its development of Stewart Field and undertook to graduate Air Cadets fully trained as pilots. Hitherto, only observation flights and general instruction in the employment of air forces had been given. On 31 May 1943, Gen. H. H. Arnold awarded wings to the first class ever to graduate from West Point as full-fledged pilots. Of the 2,624 officers graduated by the Military Academy during the war, 825 were commissioned in the Army Air Forces.

An equally modern and intensive program of training for Ground Cadets was introduced, embodying the latest lessons learned from the battlefields. Camp Buckner in the newly acquired area was developed as a base for the summer training program. Maneuvers and observation tours at Pine Camp, Fort Benning, and other training centers rounded out the basic instruction given at Camp Buckner.

Approximately 8,800 graduates of West Point saw active service during the war. Although they constituted less than 2 percent of all officers in the Army of the United States, they furnished 83 percent of the generals, 65 percent of the lieutenant generals, and 55 percent of the major generals (exclusive of medical officers). The commanders of the Ground, Air, and Service Forces were graduates, as were the two Supreme Commanders of the Allied Forces, General of the Army Dwight D. Eisenhower in Europe and General of the Army Douglas MacArthur in the Pacific.

In September 1945 the Academy announced its return to the 4-year course. A new curriculum and plans for putting it into effect were approved. The third class was divided in half; one-half to graduate in June 1947, and the other half in June 1948. A board of consultants, with members representing the Army and civilian educational institutions, was convened to pass upon the proposed curriculum and make general recommendations as to the conduct of the Academy.

Under the new plan, pilot training was dropped; but all cadets were given aviation training sufficient to provide them with a grasp of air operations. This change was necessary in order to allow time for military and academic subjects of more general importance to Army officers. Amphibious training with the Midshipmen of the Naval Academy and an exchange of instructors between the two service academies were inaugurated.

The proven methods of the past were adhered to, but modifications and additions in keeping with experience in the war were adopted. A Dean

of the Academic Board with rank of Brigadier General was appointed, and Congress authorized nine new permanent professors. The basic sciences, chemistry and physics, were grouped under the Department of Physics and Chemistry; and additional time was allotted for the study of nuclear physics. The course in the Department of Electricity was extended to include electronics and communications. The course in the Department of Social Sciences was expanded to include geography and military government, and a more thorough study of international relations and the economics of war. A course in Psychology of Military Leadership was included under the Department of Tactics. The list of languages taught by the Department of Foreign Languages was increased to five by the inclusion of Russian.

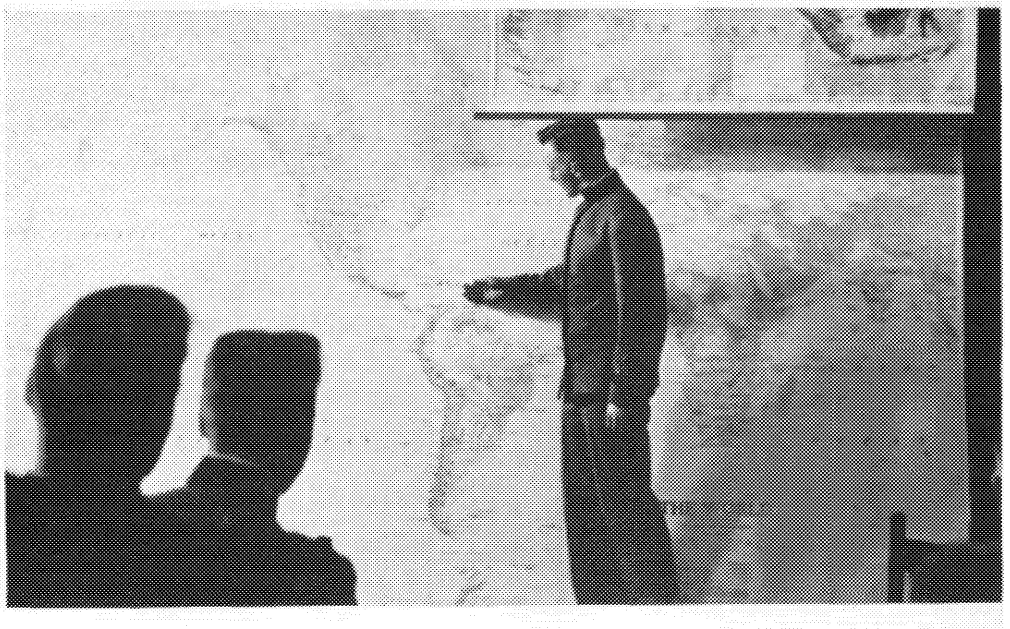
The total number of graduates, including foreigners receiving instruction under acts of Congress, from 1802 to 1949, inclusive, is 17,073.

2. Mission

The mission of the United States Military Academy is to instruct and train the Corps of Cadets so that each graduate will have the qualities and attributes essential to his progressive and continued development throughout a lifetime career as an officer of the Regular Army or Air Force. (AR 350-5, dated 12 September 1946.)

3. Calendar 1949-50

1949—	
8 June-5 Sept	Practical military instruction.
1 July	New fourth class enters.
18 Aug	Reexamination of cadets deficient on second term-end examinations.
6 Sept	First term begins.
22 Dec	First term ends.
23-27 Dec	Term-end examinations.
22 Dec.-2 Jan. 1950	Christmas leave for upper classes.
1950—	
3 Jan	Second term begins.
7 Mar	Examination of candidates begins.
14 Mar	Reexamination of cadets deficient on first term-end examinations.
1 June	Second term ends.
2-5 June	Term-end examinations.
2-6 June	June week.
6 June	Graduation.



SECTION II—APPOINTMENTS AND ADMISSIONS

	Page
1. General	8
a. Admissions	8
b. Nominations and appointments	8
c. General requirements	8
d. Oaths required	9
2. Composition of the Corps of Cadets	10
3. Noncompetitive appointments	10
a. Congressional	10
b. Vice presidential	11
c. Panama Canal Zone	11
d. Sons of Congressional Medal of Honor winners	11
e. Foreign cadets	13
4. Competitive appointments	14
a. Presidential	14
b. Regular Army and National Guard	14
c. Honor military schools	15
d. Sons of deceased veterans	15
5. Qualified alternates and qualified competitors	16

APPOINTMENTS AND ADMISSIONS

1. General

a. Admissions.—The total permissible strength of the Corps of Cadets and the various quotas that make up that total are specified and limited by law. Candidates who have qualified at the entrance examinations and who are entitled to admission under the terms of their appointments are admitted to fill existing vacancies within each of the several quotas. Normally, about 700 vacancies are available each year. The date of admission of a new class is always the first weekday in July and vacancies which occur subsequent to that date cannot be filled until the following July.

b. Nominations and appointments.—Letters of appointment are issued by the Department of the Army, in the name of the President, upon receipt of a nomination received from one of the sources established by law. Therefore, a young man seeking admission to the Corps of Cadets must first obtain such nomination. Full information as to the authorized sources of admission and the nominating authorities to whom requests should be addressed in each case is contained in paragraphs 2, 3, and 4 of this section.

The law prescribes that appointments to the United States Military Academy shall be made only within the year preceding the date of admission. Candidates whose nominations are received in the Department of the Army on or before 15 February are appointed to undergo the annual entrance examination which begins on the first Tuesday in March at various military installations throughout the United States and overseas. Vacancies that exist after the March examination has been held may be filled by the appointment of candidates to undergo the special examination held only at West Point, New York, beginning on the Tuesday preceding 16 June. After the June examination has been held only candidates found fully qualified at the March or June examinations of that year may be nominated for appointment. Nominations of such candidates will be accepted if received in the Department of the Army, or postmarked, prior to midnight of 30 June.

c. General requirements.—To be eligible for appointment all candidates must meet the following requirements:

(1) *Age.*—On the date of admission to the Military Academy candidates must have reached their seventeenth but not their twenty-second birthdays, except that a minimum age of 19 is required for candidates appointed under the quotas allotted by law to enlisted men of the Regular Army or National Guard. Public Law 255, approved 11 December 1945, provides that any appointee who has served honorably (on active duty) not less than 1 year in the armed forces of the United States is eligible until he reaches his twenty-fourth birthday.

(2) *Citizenship.*—All candidates must be citizens of the United States (except foreign cadets appointed under the provisions of paragraph 3*e* of this section).

(3) *Character.*—Candidates must be of good moral character.

(4) *Marital status.*—Candidates must never have been married. Cadets are not permitted to marry prior to graduation and proof of prior or existing marriage is considered the equivalent of resignation from the Military Academy.

d. Oaths required.—At the time of admission to the Military Academy and before receiving warrants of appointments as cadets, United States candidates are required to execute a statement of nonengagement in disloyal or subversive activities, an engagement for service, and the oath of allegiance to the United States, as shown below:

(1) *Nonengagement in Disloyal or Subversive Activities.*

Paragraph 2, SR 600-220-1, 10 November 1948, has been read and explained to me and I certify that I have never engaged in disloyal or subversive activities as defined therein.

.....
(Sign your full name)

(2) *Engagement for Service.*

I, ..., of the State of ....., aged ..... years ..... months (born on .....), do hereby engage, with the consent of my Father, Mother, or Guardian that from the date of my admission as a Cadet of the United States Military Academy I will serve in the Army or Air Force of the United States for eight years unless sooner discharged by competent authority.

.....
(Sign your full name)

In the presence of

.....

(3) *Oath of Allegiance.*

"I, ..., do solemnly swear that I will support the Constitution of the United States, and bear true allegiance to the National Government; that I will maintain and defend the sovereignty of the United States, paramount to any and all allegiance, sovereignty, or fealty I may owe to any State, county, or country whatsoever; and that I will at all times obey the legal orders of my superior officers, and the rules and articles governing the Armies of the United States."

.....
(Sign your full name)

Sworn and subscribed to before me at West Point, New York, this ..... day of July nineteen hundred .....

2. Composition of the Corps of Cadets

Under an act of Congress approved 3 June 1942, the Corps of Cadets shall consist of 2,496 cadets, appointed in numbers as follows:

8 from each State at large (4 for each Senatorial seat)		384
4 from each Congressional District		1,740
4 from each Territory (Alaska and Hawaii)		8
6 from the District of Columbia		6
4 from natives of Puerto Rico		4
2 from Panama Canal Zone		2
172 from the United States at large:		
Presidential	89	
Vice Presidential	3	
Honor military schools	40	
Sons of deceased veterans	40	
Total United States at large		172
180 from among enlisted men of the Regular Army and of the National Guard		180
Total authorized strength of the Corps of Cadets		2,496

The act of Congress referred to above also provides for admission of qualified alternate and competitive candidates in numbers sufficient to fill the Corps of Cadets when it is found to be understrength at the time of admission of a new class (see par. 5 of this section).

In addition to the authorized strength of 2,496 the law provides for admission of sons of winners of the Congressional Medal of Honor, without limitation as to number; citizens of the Republic of the Philippines, not to exceed 4 at any one time; and citizens of the American republics and Canada, not to exceed 20 at any one time.

All of the above sources of admission are fully described in paragraphs 3, 4, and 5, which follow.

3. Noncompetitive Appointments

Appointments from the sources described in this paragraph are noncompetitive in that the admission of fully qualified candidates is determined by the priority of their appointments, i. e., principal or alternate. For each vacancy four candidates may be nominated, one to be named as principal, one as first alternate, one as second alternate, and one as third alternate. If the principal is found fully qualified his admission is authorized, thus filling the vacancy. In the event the principal fails to qualify the right to admission is inherited successively by the alternate candidates, if fully qualified, as follows: The first alternate upon failure of the principal, the second alternate upon failure of the principal and first alternate, and the third alternate upon failure of the principal and the first and second alternates.

a. Congressional.—The nominating authorities for the various congressional quotas are as follows: For States at large, the Senators thereof,

respectively; for congressional districts, the respective Representatives in Congress; for the District of Columbia, the Commissioners thereof; for the Territories, their respective Delegates in Congress; for Puerto Rico, the Resident Commissioner. The nomination of candidates for appointment from congressional sources is the exclusive prerogative of the nominating authorities specified above, and all requests for nominations must be submitted direct to them.

As shown in the tabulation in paragraph 2, approximately 85 percent of the cadetships at the Military Academy are allotted by law to congressional sources. However, it should be borne in mind that appointments may be made only to fill vacancies occurring through the graduation or separation of cadets charged to the respective quotas, and for this reason Members of Congress do not always have vacancies at their disposal every year.

Many Members of Congress hold preliminary examinations to select applicants for nomination. Therefore, applicants should, whenever possible, communicate with their Senators and Representatives in Congress at least 12 months in advance of the desired date of admission so that they may be permitted to undergo such preliminary examination, if required.

The law specifies that candidates appointed from States at large, congressional districts, the Territories, the District of Columbia, and Puerto Rico must be actual residents thereof, respectively.

b. Vice Presidential.—Appointments are made upon the personal selection of the Vice President and from the United States at large, there being no limitation imposed by law as to residence.

c. Panama Canal Zone.—Appointments are made upon nomination of the Governor of the Panama Canal Zone and are restricted, by law, to the sons of civilians residing in the Canal Zone and the sons of civilian personnel of the United States Government and the Panama Railroad Co.

d. Sons of Congressional Medal of Honor winners.—An act of Congress, approved 24 November 1945, provides that the number of cadets otherwise authorized by law at the United States Military Academy is increased by such number of cadets as may be appointed by the President from the United States at large from among the sons of persons who have been or who may later be awarded a Medal of Honor in the name of Congress for acts performed while in any of the armed forces of the United States, provided that such appointees are otherwise qualified for admission. The administration of these appointments has been delegated to the Department of the Army. Application by those eligible should be made by letter (no form is prescribed) to The Adjutant General, Washington 25, D. C., giving the applicant's full name, address, and date of birth (complete service address and serial number should be given if applicant is in the armed forces), and the name, rank, and branch of service of the parent

and the date and a brief statement of the circumstances for which the Medal of Honor was awarded. Candidates appointed from this source may qualify in the same manner as a congressional principal candidate. All who are found fully qualified will be admitted as cadets, regardless of the number, since the law does not impose a limitation as to the total number to be admitted from this source.

e. Foreign cadets.—Citizens of foreign countries may be permitted to attend the United States Military Academy only as provided in (1), (2), and (3), below. All applications for the attendance of foreign cadets at the Military Academy must be submitted to the United States Government through diplomatic channels by the foreign governments concerned. Foreign candidates are not required to qualify in the United States history or physical aptitude entrance examinations, but in other respects the requirements for the admission, advancement, and graduation of foreign cadets are identical with those for United States cadets. These students execute an agreement to comply with all regulations for the police and discipline of the Military Academy, to be studious, and to give their utmost efforts to complete satisfactorily the courses in the various departments of instruction. Foreign cadets are not entitled by reason of their graduation from the United States Military Academy to any office or position in the United States Army.

(1) *Citizens of the Republic of the Philippines.*—The Secretary of the Army is authorized to permit not exceeding four Filipinos (one for each entering class), to be designated by the President of the Republic of the Philippines, to receive instruction at the United States Military Academy, under the provision of the act of Congress approved 28 May 1908, as amended.

(2) *Citizens of the American Republics and Canada.*—The act of Congress approved 26 June 1946, as amended, authorizes the President of the United States to permit not exceeding 20 persons at a time from the American Republics (other than the United States) and Canada to receive instruction at the United States Military Academy. Not more than three persons from any one of such countries may receive instruction under authority of that law at the same time. Such persons receive the same pay, allowances, and emoluments, including mileage from their homes in proceeding to the Military Academy for initial admission, as cadets appointed from the United States.

(3) *Citizens of other foreign countries.*—From time to time citizens of foreign countries other than those specified in (1) and (2), above, have been permitted to attend the United States Military Academy upon specific authorization of the United States Congress in each case. Such foreign students must be provided with the same amount of funds provided by the United States Government for United States cadets, and not more nor less than that amount.

4. Competitive Appointments

Candidates holding appointments from any of the sources described in paragraphs *a*, *b*, *c*, or *d*, below, must undergo the regular mental examination in competition with all candidates holding appointments from the same source. The available vacancies within each quota are filled by physically qualified candidates who make the highest proficient ratings in the competitive examination. Therefore, competitive candidates cannot qualify on their educational records in lieu of the regular mental examination. The competitive examination is held only in March and failure to report for examination, for any reason, is disqualifying. There is no restriction at to residence. Following are the sources of competitive appointments:

a. Presidential.—For nearly a century these appointments have been reserved by each President for the sons of members of the regular components of the Army, Air Force, Navy, Marine Corps, and Coast Guard, who are still in service, retired, or who died while serving therein. The administration of these appointments has been delegated to the Department of the Army. Applications by those eligible should be made by letter (no prescribed form) addressed to The Adjutant General, Department of the Army, Washington 25, D. C., giving the applicant's full name, address, and date of birth (complete service address and serial number if applicant is in the armed forces), and the name, rank, serial number, and branch of service of the parent. Adopted sons are eligible for appointment if they were adopted prior to their fifteenth birthday; a copy of the order of court decreeing adoption, duly authenticated and certified by the clerk of the court, must accompany the application.

b. Regular Army and National Guard.—An act of Congress approved 4 May 1916 provides a quota of cadetships at the United States Military Academy to be divided equally between enlisted men of the Regular Army and enlisted men of the National Guard (Air and Army). Enlisted men of the Air Force are permitted to compete under the Regular Army quota. The number of candidates appointed to compete for admission is four times the number of available vacancies and admission to the Military Academy is awarded to those physically qualified competitors making the highest proficient averages in the order of merit established at the March entrance examination as follows: for Regular Army vacancies, from among all Army and Air Force competitors regardless of the command from which selected; for National Guard vacancies, from among all National Guard and Air National Guard competitors regardless of the State, Territory, or the District of Columbia, from which selected.

(1) *Regular Army and Air Force.*—The law prescribes that an applicant must have reached his nineteenth birthday and have completed 1 full year of active enlisted service in the Army (or Air Force), as of the date of admission to the Military Academy, and he must be in an active enlisted status at the time. Service need not be continuous. Applications are submitted through commanding officers in accordance with existing directives. Candidates are necessarily selected nearly 1 year in advance of the scheduled date of admission to permit them to attend the United States Military Academy Preparatory School in preparation for the com-

petitive entrance examination. The selection of candidates in 1949, to compete in the March 1950 entrance examination for admission to the Military Academy on 1 July 1950, was based on an open competitive examination held throughout the Army and Air Force in July 1949, under the provisions of Circular 73—Air Force Letter 35-137, Departments of the Army and Air Force, 13 May 1949. Applications for selection in 1950, with a view to admission to the Military Academy in 1951, will be governed by a new directive to be published on or about 1 May 1950.

(2) *National Guard (Air and Army).*—The law prescribes that an applicant must be an enlisted man of a federally recognized unit of the National Guard at the time of appointment and at the time of his admission to the United States Military Academy. He must have reached his nineteenth birthday and must also have served as an enlisted man in the National Guard not less than 1 year, as of the date of admission. It is not essential that the service be continuous. Service with a National Guard organization prior to its recognition by the Federal Government may be considered, the date of enlistment of the person concerned governing and not that of the recognition of the unit. Within quotas established by the Department of the Army, applicants are selected by the respective Governors of the States, Territories, and Puerto Rico, and the commanding general of the District of Columbia National Guard from among successful competitors in a preliminary mental examination of a scope and nature similar to the regular United States Military Academy entrance examination, conducted by the Governors and the commanding general mentioned, prior to 15 November of each year. Each selected candidate is issued a letter of appointment by the Department of the Army authorizing him to report for the regular entrance examination the following March. Specific information is distributed annually at the appropriate time, usually on or about 1 September, within local National Guard channels, through which all applications must be submitted.

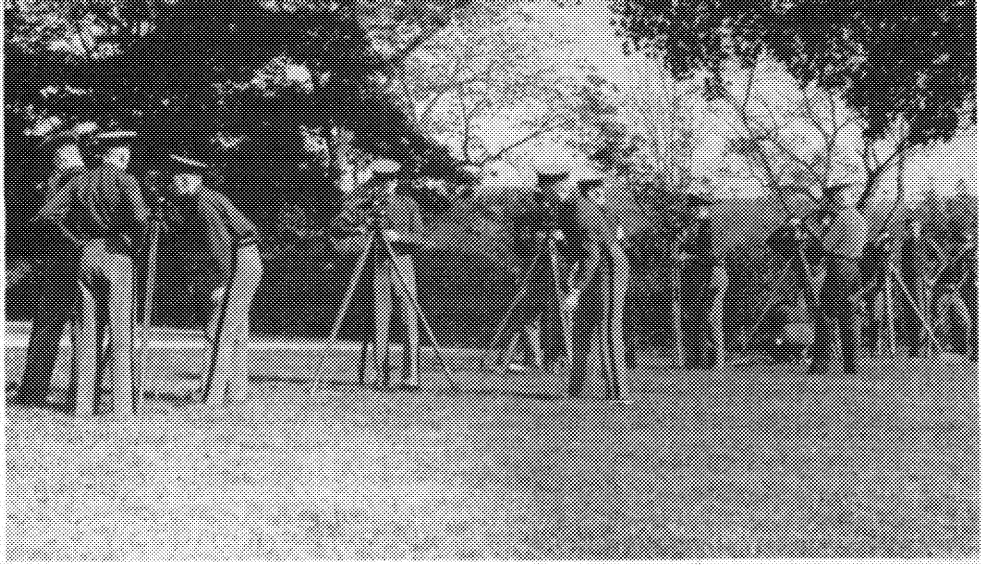
c. Honor military schools.—Honor military schools of the essentially military type, as determined by annual Department of the Army inspections, may nominate three candidates annually from among their honor graduates, to compete for admission at the regular entrance examination in March. The number of available vacancies will be filled in the order of merit established at the regular examination, without regard to the schools from which the candidates are appointed. Each nomination must contain a certification by the head of the institution that the candidate is an honor graduate of a year for which the institution was designated an honor military school. No student may be rated as an honor graduate unless he has shown proficiency in subjects of his school work amounting to not less than the 15 units prescribed by the regulations for admission to the United States Military Academy. However, the institution is not limited to those graduates of the current year.

d. Sons of deceased veterans of World Wars I and II.—An act of Congress, approved 8 June 1926, as amended by acts of Congress approved 1 December 1942 and 24 November 1945, provides cadetships at the United States Military Academy for the sons of members of the land or naval forces (including male and female members of the Army, Navy, Marine

Corps, and Coast Guard, and of all components thereof) of the United States, who were killed in action or have died of wounds or injuries received, or disease contracted, or preexisting injury or disease aggravated, in active service during World War I or II (as each is defined by laws providing service-connected compensation or pension benefits for veterans of those wars and their dependents). The determination of the applicability of this act of Congress is made by the Veterans' Administration and its decisions are final and binding on the Department of the Army. The administration of these appointments has been delegated to the Department of the Army. Application should be made by letter (no form is prescribed) addressed to The Adjutant General, Washington 25, D. C., showing the full name, date of birth, and address of applicant (complete service address should be given if applicant is in the armed forces), and the name, rank, serial number, and last organization of the veteran parent together with a brief statement concerning the time, place, and cause of death. The claim number assigned to the veteran parent's case by the Veterans' Administration should also be furnished. All candidates from this source must undergo the regular entrance examination competitively since the vacancies available must, under the law, be awarded to those physically qualified candidates who make the highest proficient ratings in the order of merit established by the examination mentioned. Accordingly, candidates appointed under this law cannot qualify thereunder by the submission of educational records in lieu of the regular entrance examination.

5. Qualified Alternates and Qualified Competitors

Section 2, act of Congress, approved 3 June 1942, provides: "When on the date of admission of a new class the total number of cadets is below the number authorized, the Secretary of War may bring the Corps of Cadets to full strength by appointing qualified alternates and candidates recommended by the academic board, two-thirds thereof from qualified alternates and one-third thereof from qualified candidates (competitors): *Provided*, That any appointment made under this section shall be an additional appointment and shall not constitute an appointment otherwise authorized by law." The only candidates who are eligible for consideration are those who have been found mentally and physically qualified in connection with an appointment held for admission the first weekday of July of the year concerned. No application is necessary for consideration by the academic board since all candidates who are fully qualified but who are not entitled to admission under the terms of their appointments are rated relatively according to general merit. The academic board in determining the general merit studies the records of these candidates and makes its selection based upon consideration of the academic grades and other pertinent factors which affect the qualifications of the various candidates to become officers of the Army. Since, under the law, the vacancies in the Corps of Cadets cannot be determined until the date of admission, notices to candidates selected are sent on or shortly after that date authorizing them to report for admission as cadets on or before 15 July.



SECTION III—QUALIFYING FOR ADMISSION

	Page
1. General	18
2. Entrance examinations	18
a. Regular examination	19
b. Special June examination	19
c. Examination schedule	20
3. Mental requirements	20
a. General information as to certificates	20
b. United States history and West Point aptitude requirements	21
c. Qualifying by regular mental examination	21
d. Qualifying by certificate and validating examination	22
e. Qualifying by certificate and West Point aptitude test	22
f. Qualifying by certificate and record of examination by the college entrance examination board	23
g. No further mental requirement	23
h. Subjects and credits	23
i. Definitions and detailed requirements	23
4. Physical aptitude requirements	27
5. Physical (medical) requirements	29
a. Regular examination	29
b. Preliminary examination	29
c. Physical standards	32
d. Additional causes for physical disqualification	34
6. Physical conditioning	42
7. United States Military Academy Preparatory School	45

QUALIFYING FOR ADMISSION

1. General

Every candidate for admission to the United States Military Academy must establish his mental, physical aptitude, and physical (medical) qualifications by examination at the time and place specified in his letter of appointment.

A candidate who is found fully qualified at the examinations in March or June and who obtains a subsequent noncompetitive appointment prior to midnight of 30 June of that year for admission with the same class, is not required to undergo any further examination. If he subsequently receives a noncompetitive appointment for admission in a later year he will not be required to undergo further mental or physical aptitude examination unless the entrance requirements have changed meanwhile, but must again qualify at the physical (medical) examination.

Disqualification in either the mental examination or the physical aptitude test is final and reexaminations in those subjects will not be granted under the same appointment.

The entrance examinations, the various methods of qualifying mentally, and the physical aptitude and physical (medical) requirements are described in detail in paragraphs 2, 3, 4, and 5 of this section. Suggestions for physical conditioning are given in paragraph 6. Sample questions and descriptions of the mathematics, English, United States history, and West Point aptitude examinations will be found in section VII.

2. Entrance Examinations

Boards of officers are convened at certain military installations in the United States and overseas for the purpose of conducting the annual entrance examinations for the United States Military Academy. Candidates must report for examination as authorized in their letters of appointment. Under no circumstances will persons other than duly appointed candidates be permitted to undergo any portion of the entrance examination.

Candidates who fail to report for examination, or who report but fail to undergo the required tests, vacate their appointments. The only exception to this rule is in the case of *March noncompetitive* candidates who are unable to report, or to finish their examinations, because of incapacitating illness or injury, or for other valid reasons entirely beyond their control. The reason for such failure, together with a doctor's certificate or other appropriate evidence, should be submitted to The Adjutant General not later than 15 March. Consideration will then be given to authorizing the candidate to report for the special June examination. Deferment from March to June is not granted solely for the

convenience of candidates or because of conflict with any other examinations or activities in which they may be engaged.

All travel and personal expenses in connection with the examination must be borne by the candidate. Meals and sleeping accommodations are usually available at the place of examination at nominal cost.

a. Regular examination.—The regular entrance examination begins on the morning of Tuesday, 7 March 1950. Candidates are required to report on the preceding afternoon, Monday, 6 March, between 1 and 5 p. m.

This is the only time at which the regular mental examination is given and is, therefore, the only examination at which competitive candidates can qualify for admission.

Candidates are assigned by the Department of the Army to the examining station most convenient to their homes, or to the schools at which they may be in attendance, or to their stations if in the military service. Change in the place of examination will be authorized by The Adjutant General upon request, but normally not later than 1 February 1950. On or about 15 January 1950, candidates will be furnished with a firm list of examining stations and a form on which to request a change, if desired. Following is a tentative list of the examining stations to be used in March 1950:

Army and Navy General Hospital, Hot Springs National Park, Ark.
Army Medical Center, Washington, D. C.
Army Base, Boston, Mass.
William Beaumont General Hospital, El Paso, Tex.
Fort Benning, Ga.
Fort Bragg, N. C.
Fitzsimons General Hospital, Denver, Colo.
Fort Sam Houston, Tex.
Keesler Air Force Base, Biloxi, Miss.
Fort Knox, Ky.
Fort Leavenworth, Kans.
Letterman General Hospital, Presidio of San Francisco, Calif.
Fort Lewis, Wash.
March Air Force Base, Riverside, Calif.
Fort McPherson, Ga.
Governors Island, N. Y.
Fort Sheridan, Ill.
Fort Sill, Okla.
Schofield Barracks, T. H.
San Juan, P. R.
Fort Clayton, C. Z.
Fort Richardson, Alaska.
Heidelberg, Germany.
Manila, Philippine Islands.
Tokyo, Japan.

b. Special June examination.—A special examination will be held at West Point, N. Y., *only*, beginning on the morning of Tuesday, 13 June 1950. Candidates designated for this examination must report on Monday, 12 June, prior to 3 p. m.

This examination is offered only for emergency vacancies which remain unfilled or occur after the March examination. *Candidates appointed to fill such emergency vacancies must qualify by certificate or on the results of a previous entrance examination as described in paragraphs 3d, e, f, or g. Candidates whose certificates are disapproved are not eligible to undergo this special examination.*

c. Examination schedule.—Schedule of examinations is as follows:

FIRST DAY

Morning.—Instructions to all candidates, 8:30 a. m. to 9:30 a. m., 1 hour. West Point aptitude test, 9:30 a. m. to 12 noon, 2½ hours.

Afternoon.—Special examination in United States history (for only those candidates whose credit in United States history has not been accepted), 2 p. m. to 3:30 p. m., 1½ hours.

SECOND DAY

Morning.—Regular examination in mathematics, 9 a. m. to 12 noon, 3 hours. Validating examination in mathematics, 9 a. m. to 10:30 a. m., 1½ hours.

Afternoon.—Regular examination in English, 2 p. m. to 5 p. m., 3 hours. Validating examination in English, 2 p. m. to 3:30 p. m., 1½ hours.

THIRD DAY

Physical examination and physical aptitude test until completed.

3. Mental Requirements

a. General information as to certificates.—With his letter of appointment each candidate receives a Personal and School History Sheet, a Form II certificate for reporting his secondary school work, and a Form I certificate for reporting college work, if any. All candidates, of every category, must submit their complete educational records. Detailed instructions are furnished with these forms covering their completion and forwarding.

The Academic Board at West Point carefully considers these educational records, as well as the results of any previous West Point entrance examination which the candidate may have taken under a prior appointment. Each candidate is then informed, based on the type of appointment held, what part of the mental examination (regular mental, validating, or West Point aptitude test) he must undergo to qualify mentally; or whether he is considered mentally qualified without further mental requirement as a result of having qualified at a previous mental examination. The various methods of qualifying mentally are fully described in paragraphs *b* through *g*, below.

Certificates should be submitted as soon as practicable, and not later than 15 February in the case of candidates appointed for the March

examination. A certificate received between 15 February and the start of the March examination will receive consideration, but no assurance can be given that the Academic Board can determine its value in sufficient time to advise the candidate of its action before the examination begins. Any candidate who has not received notice of the certificate action in his case by the time he reports for the examination, should undergo the regular mental and United States history examinations.

Candidates whose schooling has been so irregular or incomplete that the certificate forms do not properly describe it should submit statements of their scholastic work, certified by their teachers or tutors, in as much detail as possible.

Candidates who have ever before submitted a Form I or Form II certificate to the United States Military Academy and since that time have NOT undertaken any additional school work, should make notation to that effect, fill out only that portion of the Forms I or II to be filled out by the candidate, and send the forms direct to the Registrar, United States Military Academy. Candidates who HAVE undertaken additiona school work since the submission of a Form I or Form II certificate should submit the appropriate certificate for such additional work only.

The Academic Board may reject any certificate for low grades, or upon any evidence, whether appearing in the certificate or not, that creates a reasonable doubt as to the candidate's mental qualifications for admission. A record in the entrance examination of a former year is given great weight when certificates are being evaluated. For this reason, taking the examination merely for practice and failing therein may have an adverse effect if entrance by certificate is sought in a later year.

b. United States history and West Point aptitude requirements.—Al candidates must meet two basic requirements, as follows:

(1) *United States history.*—Candidates must qualify in United States history either by presenting evidence that they have satisfactorily completed a standard course or its equivalent (1 year in secondary school or one semester in college), or by passing the examination in that subject.

(2) *West Point aptitude test.*—All candidates are required to take the West Point aptitude test. This is a 2½-hour examination requiring no special preparation.

c. Qualifying by regular mental examination.—(1) Noncompetitive candidates who cannot qualify, at least in part, on their educational certificates as provided in paragraphs *c*, *d*, *e*, or *f*, below, must take the regular mental examination in mathematics and English.

(2) Candidates holding appointments from competitive sources cannot qualify by certificate since they are appointed to vacancies in the order of merit competitively established at the regular mental examination in mathematics and English. They must, nevertheless, submit their complete educational records as outlined in paragraph *a*, above.

(3) *Mathematics.*—Candidates will be required to pass an examination in those topics of algebra and plane geometry listed in paragraphs *i* (2) and *i* (4), below (mathematics A and C).

(4) *English.*—Candidates will be required to pass an examination in English grammar, composition, and literature as described in paragraphs *i* (7) and *i* (8).

d. Qualifying by certificate and validating examination.—The Academic Board will consider and may accept in lieu of the regular mental examination a certificate with validating examination in mathematics (A and C) and English (A). The examination will be of such a nature as to determine the knowledge of a candidate, but not so difficult as to require for the desirable student an intensive special preparation. A candidate whose certificate is rejected must take the regular mental examination. Certificates will be considered in the following cases:

(1) A properly attested certificate (Form II) that the candidate has graduated from a preparatory school or public high school accredited for admission to the United States Military Academy, provided that in his school work he has shown proficiency in subjects amounting to not less than 15 units of the list given in paragraph *h*, below. Of the 15 units, 2 must be in algebra, 1 in plane geometry, 1½ in English grammar and composition, 1½ in English literature, and 1 in United States history. The remaining 8 units must be chosen from the list of optional subjects, and must not include commercial or other subjects not listed.

(2) A properly attested certificate (Form II) that the candidate is in actual attendance in his senior year at a preparatory school or public high school accredited for admission to the United States Military Academy and has satisfactorily completed 3½ years of work at such school, provided that the certificate shows specifically by subjects and units the work already completed and also that to be completed by graduation, and provided that the course the candidate is pursuing will, when completed, show proficiency in subjects amounting to not less than 15 units as prescribed in (1), above. The candidate must as a condition of admission continue his course of study and submit his diploma or other formal evidence of graduation at the time of entrance to the United States Military Academy. Failure to submit such evidence of graduation will disqualify the candidate for admission.

e. Qualifying by certificate and West Point aptitude test.—A properly attested college certificate (Form I), together with a secondary school certificate (Form II), will be considered by the Academic Board and may be accepted without other mental requirement, except the West Point aptitude test. A candidate will be rejected as mentally unqualified if he fails to pass the West Point aptitude test.

The Form I certificate must show that the candidate is, or was upon leaving, a regularly enrolled student in good standing without condition in a university, college, or technical school accredited for admission to the

United States Military Academy, and that he has successfully completed at least one semester. A full record of academic work, including subjects taken and the grades attained in each, is required.

The Form II certificate must show that the candidate entered college with the secondary school credits prescribed in *d* (1), above. If he lacks not more than two units of the prescribed secondary school credits, required or optional, he may make up this deficiency in college at the rate of one semester of college work to 1 year of secondary school study. A candidate whose certificate is rejected will be required to take either the regular mental or validating examination as determined by the Academic Board.

f. Qualifying by certificate and record of examination by the College Entrance Examination Board.—The Academic Board will consider and may accept, subject only to the requirement in *b*, above, a secondary school certificate as prescribed in *d* (1), above, supplemented by a report of satisfactory performance on certain tests of the College Entrance Examination Board, provided these tests have been taken prior to the United States Military Academy entrance examination for which the candidate has been designated. Tests on which satisfactory performance may be accepted are:

(1) If taken prior to 6 December 1947: the verbal and mathematics sections of the scholastic aptitude test.

(2) If taken from 6 December 1947 through 24 August 1949: the scholastic aptitude test *including* either intermediate or comprehensive mathematics (programs 2 or 3).

(3) Effective 10 December 1949: the scholastic aptitude test (verbal and mathematics sections) *and* the intermediate or the advanced mathematics achievement test.

A candidate whose certificate or College Entrance Examination Board record is rejected will be required to take either the regular mental or validating examination as determined by the Academic Board.

g. No further mental requirement.—A candidate once found mentally qualified at a previous entrance examination for the United States Military Academy will not be required to undergo further mental examination in connection with any subsequent noncompetitive appointment, provided that the entrance requirements have not been changed meanwhile.

h. Subjects and credits.—The list of subjects and corresponding weights in units is as follows:

(1) *Required.*—Every certificate must show evidence of proficiency in these subjects:

	Units		*Units*
Mathematics, A	2	English, A	1½
Mathematics, C	1	English, B	1½
History, D,[1] United States history	1		

[1] Lack of this credit does not cause rejection of the certificate but adds the requirement that the special examination in United States history be taken and passed.

(2) *Optional.*—The remaining eight units may be supplied from among the following subjects and no others:

	Units		Units
Mathematics, B	½	Problems of American democracy	1
Mathematics, D	½	Contemporary problems	1
Mathematics, E	½	Citizenship	½
English, fourth year	1	Government	½
History, A, ancient history	1	Civics (when not included in history D)	½
History, B, European history	1	Latin, first year	1
History, C, English history	1	Latin, second year	1
History, world history	1	Latin, third year	1
Latin, fourth year	1	General science	1
Greek, grammar and composition	1	Biology	1
Any foreign language, first year	1	Botany	1
Any foreign language, second year	1	Zoology	1
Any foreign language, third year	1	Geography	1
Any foreign language, fourth year	1	Drawing, mechanical or freehand	1
Physics	1	Bookkeeping	1
Chemistry	1	Physiology	1
Economics	1	Psychology	1
Sociology	1	Astronomy	½
Social democracy	1	Geology	½

i. Definitions and detailed requirements.

(1) *The unit.*—A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. A 4-year secondary school curriculum should be regarded as representing not more than 16 units of work.

This statement is designed to afford a standard of measurement for the work done in secondary schools. It takes the 4-year high-school course as a basis, and assumes that the length of the school year is from 36 to 40 weeks, that a period is from 40 to 60 minutes in length, and that the study is pursued for 4 or 5 periods a week; but under ordinary circumstances a satisfactory year's work in any subject cannot be accomplished in less than 120 60-minute hours or their equivalent.

(2) *Mathematics, A, algebra, two units.*—The meaning, use, evaluation, and necessary transformations of simple formulas involving ideas with which the pupil is familiar, and the derivation of such formulas from rules expressed in words.

The graph and graphical representation in general. The construction and interpretation of graphs.

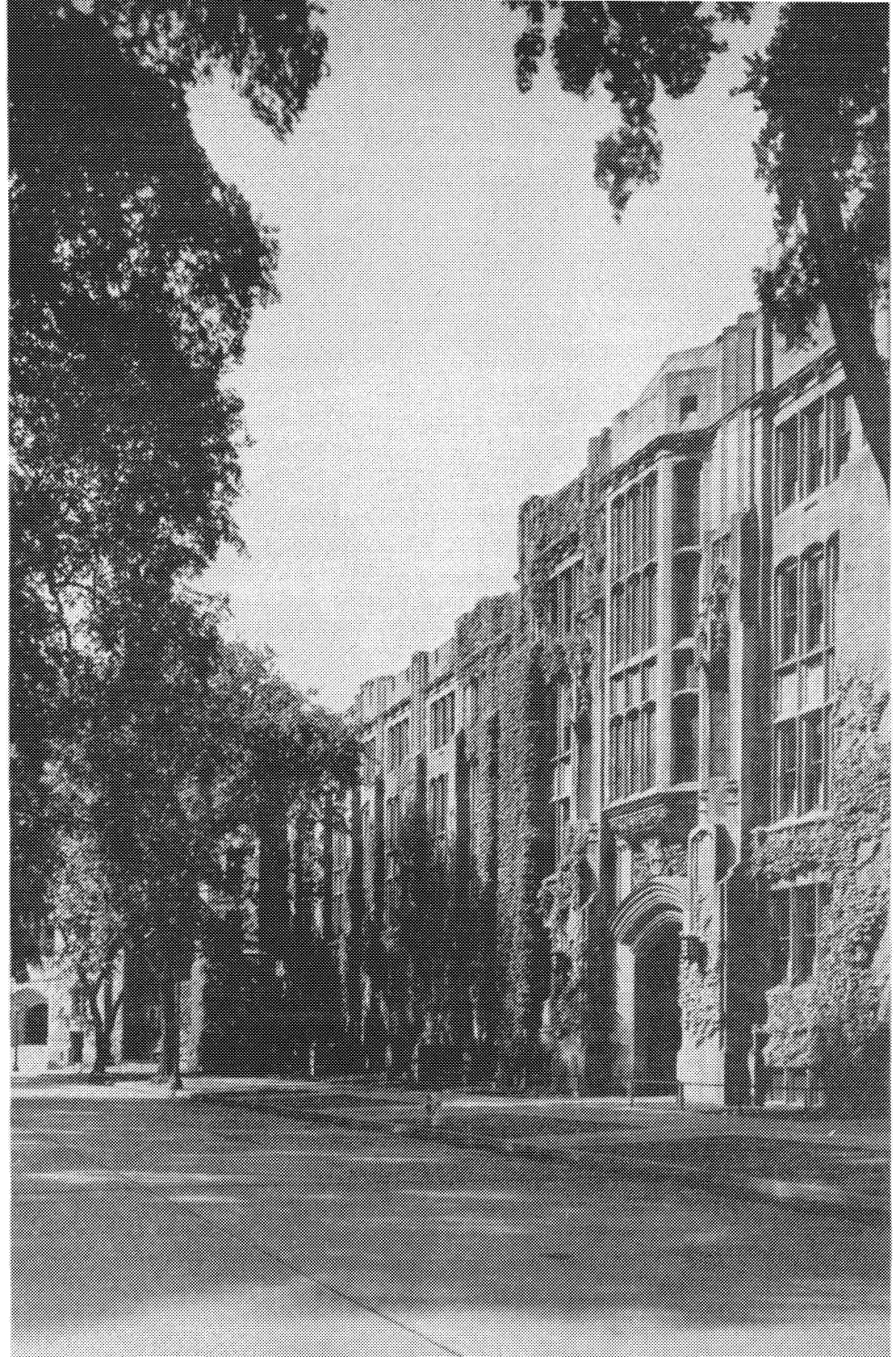
Negative numbers; their meaning and use.

Linear equations in one unknown quantity, and simultaneous linear equations involving two unknown quantities, with verification of results. Problems.

Ratio, as a case of simple fractions; proportion, as a case of an equation between two ratios; variation. Problems.

The essentials of algebraic technique.

Exponents and radicals; simple cases.



Numerical trigonometry.

Numerical and literal quadratic equations in one unknown quantity. Problems.

The binomial theorem for positive integral exponents with applications.

Arithmetic and geometric series.

Simultaneous linear equations in three unknown quantities.

Simultaneous equations, consisting of one quadratic and one linear equation, or of two quadratic equations of certain types. Graphs.

Exponents and radicals. Logarithms.

(3) *Mathematics, B, advanced algebra, one-half unit.*

Theory of equations.

Determinants.

Complex numbers (numerical and geometric treatment), simultaneous quadratics, scales of notation, mathematical induction, permutations and combinations, and probability.

(4) *Mathematics, C, plane geometry, one unit.*—The usual theorems and constructions presented in good textbooks, including the general properties of plane rectilinear figures; the circle and measurement of angles; similar polygons; areas; regular polygons and measurement of the circle.

The solution of numerous original exercises, including loci problems.

Applications to the mensuration of lines and plane surfaces.

(5) *Mathematics, D, solid geometry, one-half unit.*—The usual theorems and constructions presented in good textbooks, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

The solution of numerous original exercises, including loci problems.

Applications to the mensuration of surfaces and solids.

(6) *Mathematics, E, trigonometry, one-half unit.*—Definition of the six trigonometric functions of angles of any magnitude, as ratios. The computation of five of these ratios from any given one. Functions of 0, 30, 45, 60, and 90, and of angles differing from these by multiples of 90.

Determination, by means of a diagram, of such functions as sine (A–90) in terms of the trigonometric functions of A.

Circular measure of angles; length of an arc in terms of the central angle in radians.

Proofs of the fundamental formulas, and of simple identities derived from them.

Solution of simple trigonometric equations.

Theory and use of logarithms, without the introduction of work involving infinite series. Use of trigonometric tables, with interpolation.

Derivation of the Law of Sines and the Law of Cosines.

Solution of right and oblique triangles (both with and without logarithms) with special reference to the applications.

(7) *English, A, grammar and composition, one and one-half units.*

The principles of English composition.

The rules of English grammar.

Proficiency in spelling, punctuation, grammar, and composition acquired by repeated oral and written exercises.

(8) *English, B, literature, one and one-half units.*—The study of selected masterpieces in English and American literature.

Familiarity with the nature and characteristics of the different literary forms, such as the essay, the novel, and biography in prose, the lyric and the epic in poetry, and the comedy and the tragedy in drama.

Knowledge of the history and development of English and American literature, including acquaintance with the chief periods, as the Elizabethan, the Puritan, the Restoration, and the Victorian, with the leading writers of such periods, and with the most important works of each writer.

(9) *History, A, ancient, one unit.*—History down to the death of Charlemagne (814 A. D.) with special reference to Greek and Roman history, and with a short introductory study of the more ancient nations.

(10) *History, B, European, one unit.*—History from the fall of Rome to the present time.

(11) *History, C, English, one unit.*—History of England, emphasizing the important epochs and movements and showing the relations of English history to the history of other countries, especially the United States.

(12) *History, D, United States with or without civil government, one unit.*—The history of the United States and, if civil government is included, a study of the United States Constitution, of the Federal Government, with its powers, organization, and operation, and of the relations between the Federal and the State Governments.

(13) *History, world, one unit.*—A general survey.

4. Physical Aptitude Requirements

All candidates must qualify in a Physical Aptitude Examination. This is a 1-hour examination measuring neuromuscular coordination, muscular power, muscular endurance, speed, cardiovascular endurance, and flexibility. The tests will typify the abilities of running, jumping, throwing, climbing, dodging, lifting, pushing, pulling, etc. *Each candidate is required to take rubber-soled athletic shoes, socks, undershirt, and long trousers (athletic supporter—optional)* with him when he reports for the examinations.

It is recommended that candidates prepare for this examination by engaging in vigorous activities, such as running, conditioning exercises, competitive games, etc., rather than practicing on specific test items. A candidate may consider himself prepared to meet the minimum standards of physical aptitude if he can achieve performances on physical tests in general not lower than those here listed.

a. Vertical jump..... 17 inches.

The difference between the height an individual can reach and the height he can jump and reach.

b. Standing broad jump for distance ..... 6 feet 9 inches.

c. 3 broad jumps for distance ..... 20½ feet.

Standing start with 3 continuous broad jumps.

d. Pull-ups ..... 3 times.

Chinning oneself on a horizontal bar, grasping bar with back of hand toward face.

e. Dips ..... 3 times.

Raising and lowering oneself on parallel bars by means of the arms. The body is lowered until upper arm passes the horizontal.

f. Push-ups ..... 16 times.

Standard push-ups starting from the leaning rest position.

g. Dodge run ..... 27 seconds.

A run through a maze placed on a gymnasium floor. This test is described in the book entitled "Achievement Scales in Physical Education Activities for College Men," by F. W. Cozens, Lea & Febiger Publishing Co.

h. 300-yard run (indoor track—11 laps to the mile) ..... 46.7 seconds.

i. 300-yard run ..... 65 seconds.

This test is a shuttle run on a gymnasium floor between two turning blocks placed 25 yards apart.

j. 100-yard run ..... 18.9 seconds.

This test is a shuttle run on a gymnasium floor between two turning blocks placed 25 yards apart.

k. 50-yard run ..... 8.7 seconds.

This test is a shuttle run as described under the above 100-yard run.

l. Bar vault for height ..... 4 feet 6 inches

From a standing position vault over a horizontal bar by touching it with only the hands using either flank or front vault.

m. Burpee test for 20 seconds ..... 10½ times.

Continuous movements from the standing position to the squat, to the leaning rest, to the squat and back to the standing position.

n. Squat jumps (total number possible) ..... 28 times.

From the squatting position on the right heel with fingers laced on top of head palms downward, and with left foot slightly advanced, spring upward until both knees are straight and both feet clear the floor. While the feet are off the floor advance the right foot and drop to a squat on the left heel. Spring up again and repeat as many times as possible.

o. Sit-ups ..... 30 times.

The total number of sit-up movements that can be performed with a partner holding the feet.

p. Sit-ups for speed ..... 20 times.

The number of sit-up movements that can be performed in 30 seconds while lying on a gymnasium mat with toes hooked under a bar.

q. Softball throw for distance using a regulation softball (12-inch circumference) ..... 140 feet.

r. Basketball throw for distance using a regulation basketball ..... 65 feet.

s. Medicine ball put ..... 33 feet.

A 6-pound medicine ball is put, using the same movement as required for a shot put.

t. Hop, step, and jump ..... 20 feet.

From a standing position take a hop, a step, and a jump to gain as great a distance as possible.

x. 100-yard pick-a-back carry ..... 27.0 seconds.

Carrying a partner astride his back one runs 100 yards by shuttling back and forth around stakes placed 25 yards apart. The partner must be within 10 pounds of one's own weight.

e. Rope climb (7 seconds) ..... 10½ feet.

Climb a regulation gymnasium rope as high as possible in 7 seconds, using hands and feet or hands alone, starting from a standing position.

The examination items will be selected from the above list and candidates may consider themselves qualified to meet the minimum standard of the Physical Aptitude Examination if they can achieve the performances indicated above. The examination will be graded on the basis of the total score. In other words, failure to achieve a passing score on a single test will not cause failure if a passing grade is achieved on the whole examination. A candidate once found qualified in the physical aptitude examination will not be required to undergo the examination again in connection with any subsequent appointment.

5. Physical (Medical) Requirements

a. Regular examination.—Every candidate is required to undergo a complete physical examination by a board of medical officers at the entrance examination for which designated, to determine that he has the physical qualifications to withstand the strenuous training at the Military Academy and that he does not possess defects that might reasonably be expected to limit his capacity for active service during a permanent career as an officer of the armed forces of the United States. Physical qualification at a previous entrance examination does not exempt a candidate from the necessity of qualifying physically in connection with another appointment, except that a candidate found physically qualified at the March or June examination need not be reexamined if he receives another appointment for admission the same year.

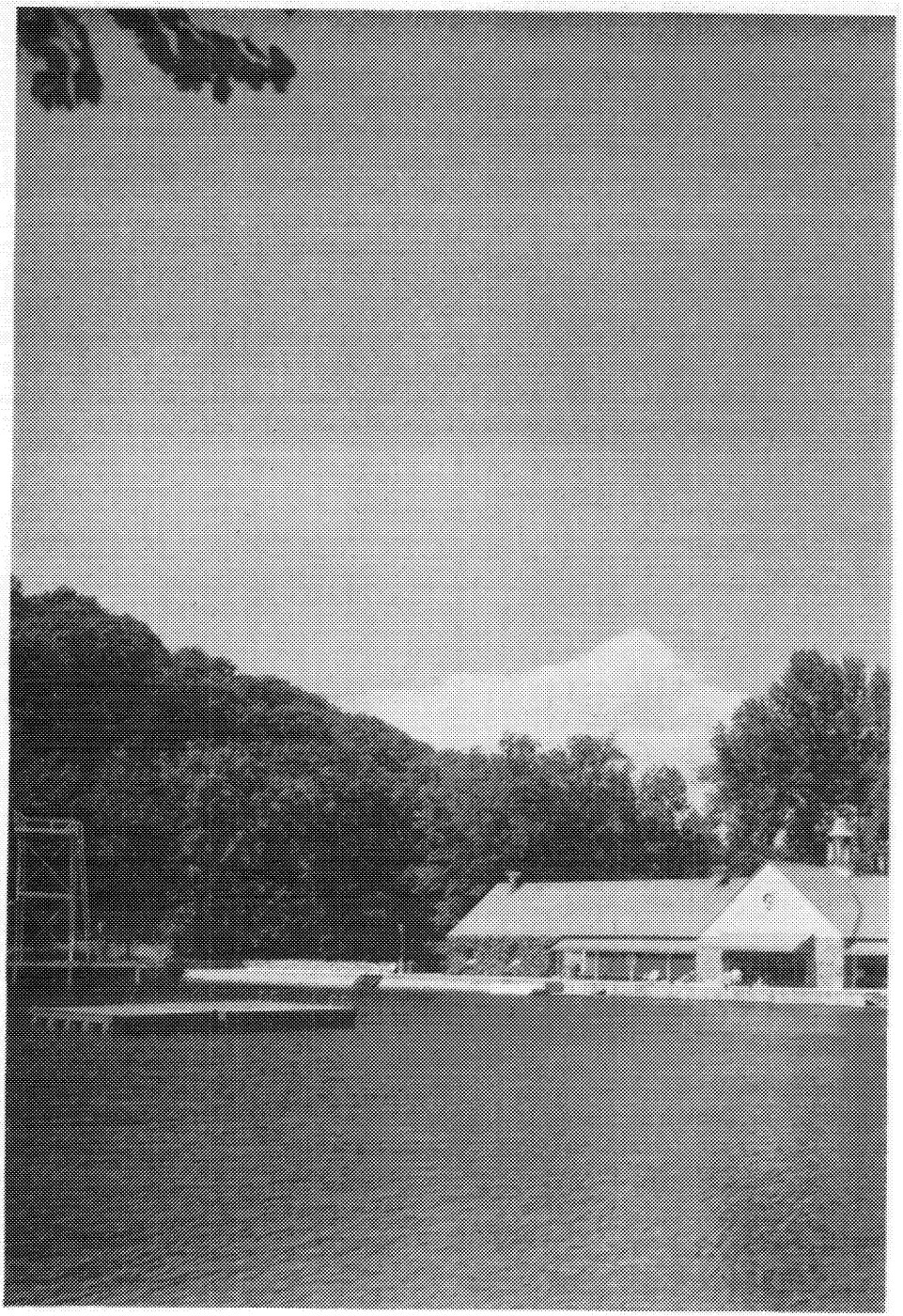
b. Preliminary examination.—Candidates should ascertain as soon as practicable whether they have any physical defect that would disqualify them for admission as cadets, or any that should be corrected by treatment before reporting for the entrance examinations.

Medical officers at Army, Air Force, or Navy installations having adequate medical facilities to conduct final type physical examinations are authorized to accomplish preliminary physical examinations of applicants for admission to the United States Military Academy, provided that such persons present written requests therefor signed by one of the following:

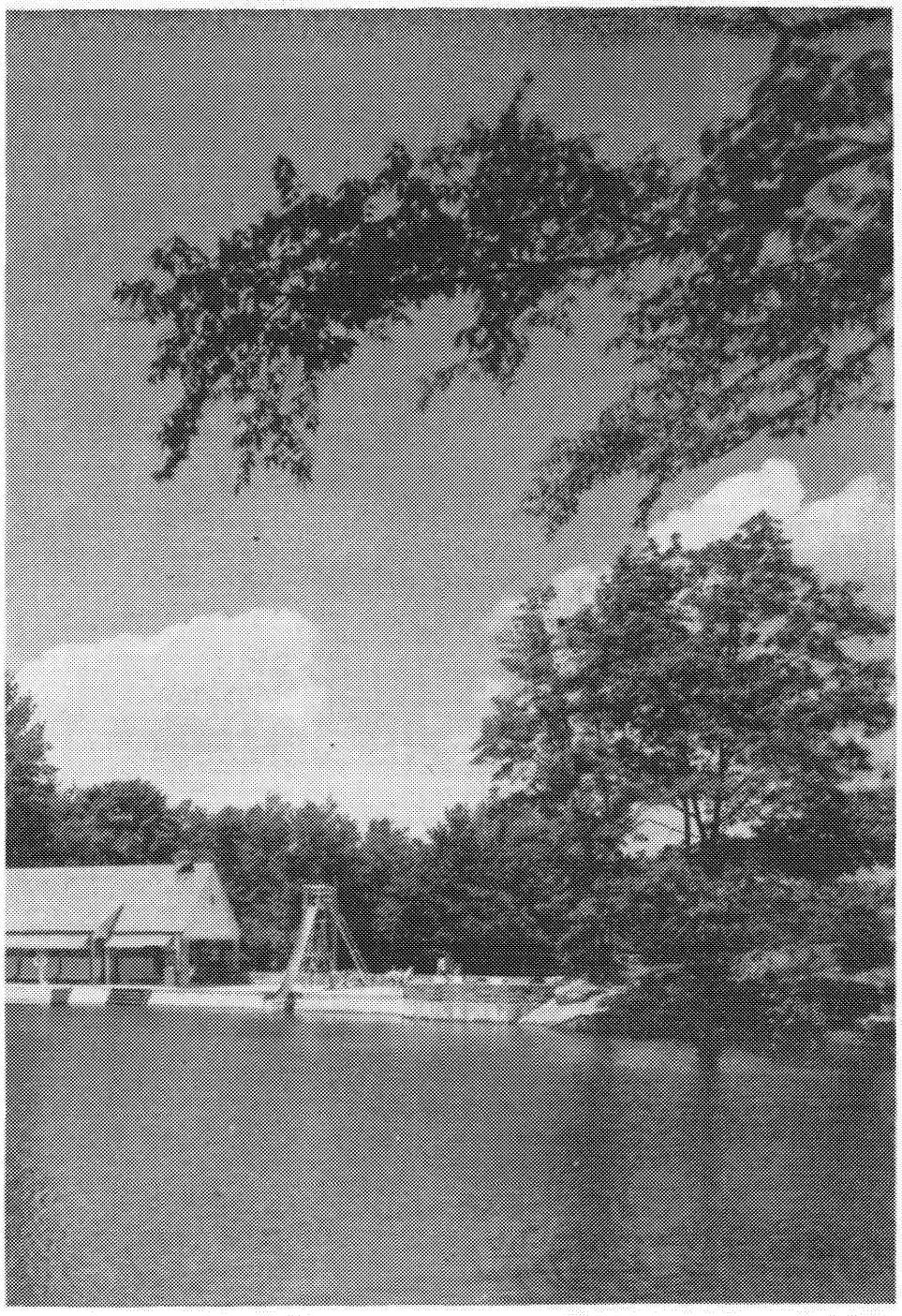
(1) Any Member of Congress.

(2) A parent or guardian of an applicant entitled to a Presidential or Son of Deceased Veteran appointment.

(3) Any Army, Navy, or Air Force officer.



Delafield Pond



c. Physical standards.—(1) Auditory acuity of all candidates will be determined by the whispered voice, and by the audiometer using the following frequencies: 256, 512, 1024, 2048, 4096, and 8192. At the time of examination the candidate should be free of upper respiratory infection. Hearing when tested by the whispered voice must be 15/15 in each ear and loss of hearing as determined by the audiometer must *not* be greater than fifteen (15) decibels in any of the frequencies 512, 1024, 2048 nor greater than thirty (30) decibels in either of the frequencies 4096 or 8192. The following-named conditions are causes for rejection: The total loss of an ear, marked hypertrophy or atrophy, or disfiguring deformity of the organ; atresia of the external auditory canal, or tumors of this part; acute or chronic suppurative otitis media, or chronic catarrhal otitis media; mastoiditis, acute or chronic; existing perforation of the membrana tympani from any cause whatever.

(2) Vision as determined by the visual test types (without a cycloplegic) must not fall below 20/30 in either eye without glasses, correctible with glasses to 20/20 in each eye, when no organic disease in either eye exists. Both eyes must be free from acute or chronic disease. Errors of refraction, if considered excessive, may be a cause for rejection even though the visual acuity falls within acceptable limits. Total hyperopia of more than two diopters or total myopia of more than three quarters (0.75) diopter in any meridian in either eye is cause for rejection.

The following-named conditions are also cause for rejection: Manifest disturbance of muscle balance; esophoria of more than 10 prism diopters, exophoria of more than 5 prism diopters, or hyperphoria of more than 1 prism diopter; impairment of the sense of color perception in a pronounced degree; trachoma, or xerophthalmia; chronic conjunctivitis; pterygium encroaching upon the cornea; complete or extensive destruction of the eyelids; disfiguring cicatrices, adhesions of the lids to each other or to the eyeball; inversion or eversion of the eyelids, or lagophthalmus; trichiasis, ptosis, blepharospasm, or chronic blepharitis; epiphora, chronic dacryocystitis, or lachrymal fistula; chronic keratitis, ulcers of the cornea, staphyloma, or corneal opacities encroaching on the pupillary area and reducing the acuity of vision below the standard noted above; irregularities in the form of the iris, or anterior or posterior synechiæ sufficient to reduce the visual acuity below the standard; opacities of the lens or its capsule, sufficient to reduce the acuity of vision below the standard, or progressive cataract of any degree; extensive coloboma of the choroid or iris; absence of pigment, glaucoma, iritis, or extensive or progressive choroiditis, retinitis, detachment of the retina, neuroretinitis, optic neuritis or atrophy of the optic nerve; loss or disorganization of either eye, or pronounced exophthalmus, true nystagmus; or permanent or well-marked strabismus; diplopia, or night blindness; abnormal conditions of the eyes due to disease of the brain; malignant tumors of lids or eyeballs; asthenopia accompanying any ocular defect.

(3) *Teeth.*—No candidate will be accepted unless he has a minimum of 6 serviceable vital masticating teeth (bicuspids and molars) above and 6

below serviceably opposing and also 4 serviceable vital incisor teeth (incisors and cuspids) above and 4 below serviceably opposing. Therefore, the minimum requirement consists of a total of 12 masticating teeth and 8 incisor teeth, all of which must be so opposed as to serve the purpose of incision and mastication. In cases in which insufficiency of teeth may be remedied by the eruption of third molars, if an X-ray of the third molar region determines a normal third molar properly positioned and developed, it may be assumed that it will have a normal eruption, and the candidate may be credited with possession of this tooth.

Vital teeth properly filled with permanent filling material, or well crowned, will be considered serviceable if otherwise acceptable. A one or two tooth replacement by a standard method of fixed bridgework will be accepted in lieu of a serviceable vital tooth when the abutment teeth are otherwise acceptable and the bridge well constructed.

A tooth will not be considered serviceable if it is a deciduous tooth, or if it fails to enter into serviceable occlusion with an opposing tooth, if it has an unfilled cavity, if it supports a defective filling or crown, if it is nonvital, or if there is destruction of the supporting tissues of the tooth, such as results from chronic gingivitis, pyorrhea, etc.

Causes for rejection are: Failure to meet the standard of minimum requirements outlined above; the loss of three adjoining masticating teeth in either side of the upper or lower jaw anterior to the third molar; disfiguring spaces between anterior teeth, such as result from the extraction of a tooth; marked irregularity of the teeth; and marked malocclusion. No candidate will be accepted until all cavities in the teeth have been filled with proper permanent fillings.

(4) *Physical proportions for height, weight, and chest measurements for all candidates except Filipinos.*—The requirements of the following tables of physical proportions are for growing youths and are for guidance in connection with the other data of the examination, a consideration of all of which will determine the candidate's physical eligibility. Mere fulfillment of the requirements of the standard tables does not determine eligibility.

Height	Weight		Minimum chest measurement at expiration	Height	Weight		Minimum chest measurement at expiration
	Minimum	Maximum			Minimum	Maximum	
Inches	*Pounds*	*Pounds*	*Inches*	*Inches*	*Pounds*	*Pounds*	*Inches*
66	120	170	30.50	72	144	201	32.50
67	124	175	30.50	73	148	208	32.50
68	128	180	31.00	74	152	214	33.00
69	132	185	31.50	75	156	220	33.00
70	136	190	32.00	76	160	226	33.50
71	140	195	32.00				

NOTE.—Fractions of an inch will be reduced to the quarter of an inch, but candidates must be at least 66 inches in height. No candidate will be accepted who is more than 76 inches in height. Height to be taken without shoes and weight without clothes.

Medical examiners will recommend rejection of individuals who show poor physical development and those who appear to be undesirable candidates because of excess fat, even though their measurements may come within the figures stated in the above table. In such instances, the report will show in detail the findings upon which recommendation for rejection is based.

Recommendations for waiver of excess weight will be made *in cases* in which the general appearance and conformation of the candidate and the rest of the examination clearly indicate that he is of the robust type and that there is no tendency to obesity, endocrine imbalance, cardiovascular disease, or other defect which is likely to shorten the period of useful active service normally expected of an Army officer. (See par. 1a (1) (c), AR 40-100.)

(5) *Minimum standards for Filipino applicants.*

Height	Weight	Chest measurement at expiration	Height	Weight	Chest measurement at expiration	Height	Weight	Chest measurement at expiration
Inches	*Pounds*	*Inches*	*Inches*	*Pounds*	*Inches*	*Inches*	*Pounds*	*Inches*
59	100	28½	63	105	29½	67	118	30½
60	101	28¾	64	107	29¾	68	124	30¾
61	102	29	65	110	30	69	127	31
62	103	29¼	66	113	30¼	70	130	31¼

d. Additional causes for physical disqualification.

(1) *In general:*

(*a*) Any deformity which is repulsive or which prevents the proper functioning of any part to a degree interfering with military efficiency.

(*b*) Obesity.

(*c*) A height of more than 76 inches.

(*d*) Deficient muscular development.

(*e*) Deficient nutrition.

(*f*) Evidences of physical characteristics of congenital asthenia. The physical characteristics of congenital asthenia are slender bones, a weak ill-developed thorax, nephroptosis, gastroptosis, constipation, the "drop" heart, with its peculiar attenuation and weak and easily fatigued musculature.

(*g*) All acute communicable diseases.

(*h*) All diseases and conditions which are not easily remediable or that tend physically to incapacitate the individual, such as—

1. Chronic malaria.
2. Uncinariasis (hookworm).
3. Active tuberculosis of any type or degree.
4. Leprosy and actinomycosis.
5. Pellagra, beriberi, sprue, scurvy, or other evidence of vitamin deficiency.
6. History of rheumatic fever or chorea within the preceding 2 years, or substantial history of recurrent attacks of rheumatic fever or chorea at any time; atrophic or hypertrophic arthritis; chronic myositis or fibrositis.
7. Osteomyelitis of any bone or a history of osteomyelitis of any of the long bones of the extremities at any time.
8. Malignant disease of all kinds in any location.
9. Hemophilia or purpura.
10. Leukemia of all types.
11. Primary (pernicious), secondary, or splenic anemia.
12. Filariasis, trypanosomiasis, and schistosomiasis.
13. Diabetes mellitus or insipidus, or renal glycosuria.
14. Acromegaly, gigantism, myxoedema, cretinism, Addison's disease, gout, Simmond's disease, and other endocrine diseases.
15. Chronic metallic poisoning.

16. Migraine.

17. Hay fever, food intolerance, angioneurotic edema or other allergic manifestations of sufficient degree to warrant the use of vasoconstrictor drugs, ephedrine, or epinephrine either locally or systemically.

18. Asthma of any degree or a history of asthma, except a history of childhood asthma, with a trustworthy history of freedom from symptoms since the twelfth birthday.

(2) *The skin:*

(*a*) Eczema of long standing or which is resistant to treatment.
(*b*) Pemphigus; lupus; sycosis; psoriasis.
(*c*) Actinomycosis; dermatitis; herpetiformis; mycosis fungoides.
(*d*) Ichthyosis or psoriasis if more than of slight degree.
(*e*) Acne upon face or neck which is so pronounced as to be definitely unsightly.
(*f*) Elephantiasis.
(*g*) Scabies; impetigo.
(*h*) Furunculosis, unless mild in degree.
(*i*) Ulcerations of the skin not amenable to treatment, or those of long standing or of considerable extent, or of syphilitic, tuberculous, malignant, or leprous origin.
(*j*) Extensive, deep, or adherent scars that interfere with muscular movements or with the wearing of military equipment, or that show a tendency to break down and ulcerate.
(*k*) Naevi or vascular tumors, if extensive, markedly disfiguring, or exposed to constant pressure.
(*l*) Obscene or offensive tatooing on portions of the body subject to exposure.
(*m*) Vitiligo of the face or body, or other skin defect if sufficient to be considered disfiguring or unsightly.
(*n*) Chronic trichophytosis or other chronic fungus infections which have not been amenable to treatment.
(*o*) Chronic urticaria and chronic angioneurotic edema.
(*p*) Exfoliating dermatitis; severe chronic seborrheic dermatitis.
(*q*) Chronic lichen planus; dermatitis factitia; scleroderma.
(*r*) Pilonidal cyst if evidenced by the presence of a tumor mass or a discharging sinus or if there is a history of inflammation or discharging sinus.

(3) *The head:*

(*a*) Tinea in any form.
(*b*) All tumors which are of sufficient size to interfere with the wearing of military headgear.
(*c*) Imperfect ossification of the cranial bones.
(*d*) Extensive cicatrices, especially such adherent scars as show a tendency to break down and ulcerate.
(*e*) Depressed fractures or loss of bony substance of the skull.
(*f*) Hydrocephalus or microcephalus.
(*g*) Deformities of the skull of any degree associated with evidence of disease of the brain, spinal cord, or peripheral nerves.

(4) *The face:*

(*a*) Extreme ugliness.

(*b*) Unsightly deformities such as large birthmarks, large hairy moles, extensive cicatrices, and mutilations due to injuries or surgical operations; tumors; ulcerations, fistulae, atrophy of a part of the face or lack of symmetrical development.

(*c*) Persistent neuralgia; tic douloureux; paralysis.

(*d*) Ununited fractures; osseous cysts; extensive exostoses.

(*e*) Chronic arthritis; complete or partial ankylosis; badly reduced or recurrent dislocations of the temporo-mandibular articulation.

(5) *The mouth, nose, fauces, pharynx, larynx, trachea, and esophagus.*

(*a*) Harelip; loss of the whole or a large part of either lip; unsightly mutilations of the lips from wounds, burns, or disease.

(*b*) Malformation, partial loss, atrophy, or hypertrophy of the tongue, split or bifid tongue, adhesions of the tongue to the sides of the mouth, provided these conditions interfere with mastication, speech, or swallowing, or appear to be progressive.

(*c*) Malignant tumors of the tongue or benign tumors that interfere with its functions.

(*d*) Marked stomatitis; ulcerations; severe leukoplakia.

(*e*) Ranula if extensive; salivary fistula.

(*f*) Perforation or extensive loss of substance or ulceration of the hard or soft palate; extensive adhesions of the soft palate to the pharynx; paralysis of the soft palate.

(*g*) Loss of the nose, malformation, or deformities thereof that interfere with speech or breathing; extensive ulcerations.

(*h*) Perforated nasal septum, if progressive, or if respiration is accompanied by a noticeable whistling sound. Before accepting any candidate with a perforated nasal septum, the possibility of syphilitic infection will be excluded.

(*i*) Septal deviation, hypertrophic rhinitis, or other conditions which result in 50 percent or more obstruction of either airway, or which interfere with drainage of a sinus on either side.

(*j*) Acute or chronic inflammation of the accessory sinuses of the nose; hay fever of sufficient degree to warrant the use of vasoconstrictor drugs, ephedrine, or epinephrine either locally or systemically.

(*k*) Chronic atrophic rhinitis, if marked and accompanied by ozena.

(*l*) Malformations and deformities of the pharynx of sufficient degree to interfere with function.

(*m*) Postnasal adenoids interfering with respiration or associated with recurrent middle ear disease.

(*n*) Chronic enlargement of the tonsils sufficient to interfere with speech or swallowing.

(*o*) Chronic laryngitis from any cause.

(*p*) Paralysis of the vocal cords; aphonia.

(*q*) Tracheotomy.

(*r*) Diverticulum, ulceration, stricture, or pronounced dilatation of the esophagus.

(6) *The neck:*

(*a*) Cervical lymph node involvement of other than benign origin, including cancer, Hodgkin's disease, leukemia, tuberculosis, and syphilis.

(*b*) Adherent and markedly disfiguring scars from disease, injuries, or burns.

(*c*) Moderate or marked enlargement of the thyroid gland from any cause.

(*d*) Exophthalmic or adenomatous goiter or thyroid enlargement from any cause associated with toxic symptoms, history of thyroidectomy.

(*e*) Benign tumors or cysts which are so large as to interfere with the wearing of the uniform or military equipment.

(*f*) Congenital cysts of branchial cleft origin, or those developing from the remains of a thyroglossal duct, with or without fistulous tracts.

(*g*) Torticollis; cervical rib.

(7) *The chest:*

(*a*) Chest expansion less than two inches.

(*b*) Congenital malformations or acquired deformities which result in reducing the chest capacity and diminishing the cardiac or respiratory functions to such a degree as to interfere with vigorous physical exertion, or that produce disfigurement when the applicant is dressed.

(*c*) Pronounced contraction of the chest wall following pleurisy or empyema.

(*d*) Deformities of the chest or scapulae sufficient to interfere with the carrying of military equipment.

(*e*) Absence or faulty development of the clavicle.

(*f*) Old fracture of the clavicle where there is much deformity or interference with the carrying of military equipment; ununited fractures; or partial or complete dislocation of either end of the clavicle.

(*g*) Suppurative periostitis, osteomyelitis, caries, or necrosis of the ribs, sternum, clavicles, scapulae, vertebrae, or other bones.

(*h*) Old fractures of the ribs with faulty union, if interfering with function.

(*i*) Malignant tumors of the breast or chest wall, and benign tumors which interfere with the wearing of a uniform or of military equipment.

(*j*) Unhealed sinuses of the chest wall.

(*k*) Scars of old operations for empyema unless the examiner is assured that the respiratory function is entirely normal.

(8) *The lungs:*

(*a*) History of:

1. Clinical tuberculosis exceeding minimal extent.

2. Tuberculosis of minimal extent clinically active within the preceding five years.

3. Known tuberculous pleurisy with effusion.

4. Pleurisy with effusion of unknown origin within the preceding five years.

(*b*) Active tuberculosis, including pleurisy with effusion which is to be considered of tuberculous origin if no other cause can be proved.

(*c*) Inactive pulmonary tuberculosis, except as specified in Army Regulations.

(*d*) Nontuberculous defects as specified in Army Regulations.

(9) *The heart and vascular system:*

All questionable findings will be thoroughly investigated over a sufficient period of time to determine their significance. Any evidence of organic heart disease will be considered as cause for rejection. When a candidate is found to have a systolic blood pressure of 140 mm. or more, or a diastolic blood pressure of 90 mm. or more, a series of readings, both a. m. and p. m. will be taken over a period of 3 days or more in order to determine if the arterial hypertension is constant and, if possible, the causes thereof. All readings will be taken with the individual relaxed and in the sitting position after a period of normal physical activity. A period of recumbency prior to taking readings will not be used.

(*a*) All valvular diseases of the heart.
(*b*) Cardiac enlargement as indicated in notation below.
(*c*) A heart rate of 100 or over when persistent after repeated examination in the recumbent position. (A. m. and p. m. examinations for 3 days are considered adequate for such determination.)
(*d*) A heart rate of 50 or under, if the history, physical examination, or an electrocardiogram shows the presence of A–V heart block or other evidence of heart disease.
(*e*) Hypertension evidenced by a persistent systolic blood pressure of 140 mm. or more, or a persistent diastolic blood pressure of 90 mm. or more.
(*f*) Arterial hypotension, when the systolic blood pressure is persistently less than 100 mm. in the sitting or standing position.
(*g*) Pericarditis, endocarditis, myocarditis, or myocardial insufficiency.
(*h*) Coronary heart disease, including angina pectoris.
(*i*) Congenital disease or deformity of the heart or great vessels.
(*j*) Aneurysm.
(*k*) Arteriosclerosis disproportionate to age.
(*l*) Arrhythmia, except sinus arrhythmia and occasional extrasystoles.
(*m*) History of rheumatic fever or chorea within the preceding two years or substantiated history of recurrent attacks of rheumatic fever or chorea at any time.
(*n*) Evidence of vasomotor instability or neurocirculatory asthenia, if persistent on examination of not less than three days.
(*o*) Electrocardiographic evidence of paroxysmal tachycardia, auricular fibrillation, auricular flutter, incomplete A–V block with or without dropped beats, complete A–V block, bundle branch block, and recent or remote coronary occulsion.
(*p*) Orthostatic hypotension or tachycardia, if marked and persistent.
(*q*) Inadequate arterial blood supply to any limb.
(*r*) Arteritis of any artery.
(*s*) Intermittent claudication, if confirmed by peripheral vascular tests.
(*t*) Phlebitis or thrombophlebitis, or evidence of repeated phlebitis in the past. Varicosites of any extremity, unless mild in degree, or history of operative treatment for such defect.

NOTE.—An apex beat located beyond the left midclavicular line or below the sixth rib indicates an enlargement sufficient to disqualify for military service if this finding is supported by X-ray evidence of abnormality of cardiac size or contour. The cause of such enlargement should be sought for and enlargement should not be made a primary diagnosis unless careful examination fails to reveal a cause.

(10) *The abdomen:*

(*a*) Wounds, injuries, cicatrices, or weakness of muscles of the abdominal walls sufficient to interfere with function.

(*b*) Fistulae from visceral or bony lesions or following operation.

(*c*) Hernia of any variety or a history of a recurrent hernia even though apparently repaired by a second operation.

(*d*) Chronic diseases of the stomach or intestines.

(*e*) Gastric or duodenal ulcer or history of gastric or duodenal ulcer with or without operation.

(*f*) History of gastroenterostomy, gastric resection, resection of peptic ulcer, partial resection of the intestine, or operation for relief of intestinal adhesions. If pyloric stenosis occurred in infancy but there have been no symptoms of obstruction since then, it will not disqualify applicant if X-ray studies of the gastrointestinal tract are negative at the time of examination.

(*g*) Blood in the feces unless shown to be due to unimportant causes.

(*h*) Visceroptosis other than mild.

(*i*) Chronic diseases of the liver, gall bladder, pancreas, or spleen.

(*j*) History of splenectomy for reason other than trauma.

(*k*) Enlargement of the liver.

(*l*) Chronic enlargement of the spleen.

(*m*) Jaundice or history of recurrent jaundice.

(*n*) Proctitis, stricture, or prolapse of the rectum.

(*o*) External or internal hemorrhoids if large in size or symptomatic.

(*p*) Fistula in ano; ischiorectal abscess.

(*q*) Fissure of the anus or pruritus ani.

(*r*) Incontinence of feces.

(*s*) Marked engorgement of superficial abdominal vessels.

(11) *The genito-urinary system, including venereal diseases:*

A serologic test for syphilis will be required of all candidates. A negative report will be accepted as satisfactory evidence of freedom from syphilis in the absence of a history of, previous treatment for, or clinical signs of syphilis. A positive or doubtful report will be rechecked by both a Kahn and Wassermann test within 3 days. An authentic history of syphilis of any type is cause for rejection without further laboratory procedure. A repeated positive serologic test, in the absence of a history of syphilis, will be accepted as evidence of the disease and considered cause for rejection. If, on repeated serologic tests, the results remain doubtful or positive and, after careful history and physical examination, the individual presents no evidence of having had syphilis at any time, the Department of the Army will notify him whether or not he is eligible for a 3-month observation period and designate the time and place for the reexamination. During this 3-month period, he will have a quantitative serologic test for syphilis performed every 3 weeks. At the end of the 3-month observation period, providing the individual's physical condition remains the same, and his serologic tests have become negative, he will be considered nonsyphilitic and qualified. Those individuals with confirmed positive reactions will be rejected. A positive spinal fluid test for syphilis at any time will be cause for rejection.

When albumin or casts are found in the urine, the cause will be determined, if possible. Specimens from the individual concerned will be examined twice daily, morning and afternoon, for 3 successive days. These specimens will be collected while the individual is carrying on with

his normal activities. Persistent albuminuria of any type or the persistence of casts in the urine will be a cause for rejection, even though the etiology thereof cannot be determined.

(*a*) Acute or chronic nephritis, diabetes mellitus or insipidus, or renal glycosuria.

(*b*) Blood, pus, albumin or pathologically significant casts in the urine, if persistent (found on a. m. and p. m. rechecks for 3 consecutive days).

(*c*) Floating kidney; hydronephrosis; pyonephrosis; pyelitis; tumors of the kidney; absence of one kidney; renal calculi.

(*d*) Acute or chronic cystitis.

(*e*) Vesical calculi; tumors of the bladder; incontinence or retention of urine; enuresis.

(*f*) Hypertrophy or abscess of the prostate gland; chronic prostatitis; history of prostatectomy or transurethral resection.

(*g*) Urethral stricture or urinary fistula.

(*h*) Phimosis, epispadias or pronounced hypospadias.

(*i*) Hermaphroditism; infantile genital organs.

(*j*) Amputation or deformity of the penis.

(*k*) Varicocele or hydrocele, if large or painful.

(*l*) Pronounced atrophy of both testicles or absence of both.

(*m*) Atrophy, deformity or maldevelopment of both testicles, or undescended testicles of any degree.

(*n*) Chronic orchitis or epididymitis.

(*o*) Syphilis as specified in Army Regulations.

(*p*) Gonococcus infections, acute or chronic; chancroid; granuloma inguinale; lymphogranuloma venereum.

(12) *Spine and pelvis, including sacroiliac and lumbo-sacral joints:*

(*a*) Lateral deviation of the spine from the normal midline of more than 1 inch (scoliosis).

(*b*) Curvature of the spine of any degree in which there is noticeable deformity when the candidate is dressed (scoliosis, kyphosis, or lordosis), or in which there is present or likely to develop pain or interference with function.

(*c*) Spondylolisthesis; herniated nucleus pulposus or history of operation for same.

(*d*) Healed fractures or dislocations of the vertebrae.

(*e*) Tuberculosis, either active or healed, of any portion of the vertebral column.

(*f*) Osteoarthritis of the spinal column.

(*g*) Malformation or deformities of the pelvis sufficient to interfere with function.

(*h*) Disease, chronic strain, or sprain of the sacroiliac or lumbosacral joints.

(13) *The extremities:*

Suitable exercise will be employed to determine the strength of the arches of the feet. Weak or painful feet are cause for rejection regardless of whether or not the arch is flattened. In reporting the presence of flat feet a careful estimate of the degree of flattening, as first, second, or third degree, will be made and reported, as well as other abnormalities, such as eversion, rotation, etc.

(*a*) All anomalies in the number, form, proportion, and movements of the extremities which produce noticeable deformity or interfere with function.

(*b*) Atrophy of the muscles of any part, if progressive or if sufficient to interfere with function.

(*c*) Benign tumors if sufficiently large to interfere with function.

(*d*) Ununited fractures, fractures with shortening or callous formation sufficient to interfere with function, old dislocations unreduced or partially reduced, complete or partial ankylosis of a joint, or relaxed articular ligaments permitting frequent voluntary or involuntary displacement.

(*e*) Reduced dislocations or united fractures with incomplete restoration of function.

(*f*) Resection of a joint or amputation of any portion of a limb except fingers or toes.

(*g*) Excessive curvature of a long bone or extensive, deep, or adherent scars interfering with motion.

(*h*) Severe sprains.

(*i*) Diseases of the bones or joints.

(*j*) Chronic synovitis, floating cartilage, or other internal derangement in a joint. A history of dislocated semilunar cartilage or loose body of the knee which has not been satisfactorily corrected by surgery or does not otherwise meet the specifications of Army Regulations.

(*k*) Varicose veins if more than mild in degree, or history of operative treatment for such defect.

(*l*) Varices of any kind situated in the leg below the knee if there are associated varicose ulcers or scars from old ulcerations.

(*m*) Chronic edema of a limb.

(*n*) Sciatica or other chronic neuralgias.

(*o*) Adherent or united fingers (webbed fingers).

(*p*) Total loss of either thumb.

(*q*) Mutilation of either thumb to such an extent as to produce material loss of flexion or strength of the member.

(*r*) Loss of more than one phalanx of the right index finger.

(*s*) Loss of the terminal and middle phalanges of any two fingers on the same hand.

(*t*) Entire loss of any finger except the little finger of either hand or the ring finger of the left hand.

(*u*) Perceptible lameness or limping.

(*v*) Knock-knee or bowlegs if severe in degree.

(*w*) Clubfoot.

(*x*) Pes cavus with clawing of the toes, if more than mild or of any degree causing symptoms.

(*y*) Flat foot when accompanied with symptoms of weak foot or when the foot is weak on test or painful, pronounced cases of flat foot attended with decided eversion of the foot and marked bulging of the inner border, due to inward rotation of the astragalus, are disqualifying regardless of the presence or absence of subjective symptoms.

(*z*) Loss of either great toe or loss of any two toes on the same foot.

(*aa*) Webbing of all the toes.

(*ab*) Overriding of any of the toes if symptomatic or more than mild in degree.
(*ac*) Ingrowing toenails if severe.
(*ad*) Hallux valgus when sufficiently marked to interfere with locomotion or when accompanied with a painful bunion.
(*ae*) Bunions, if painful or sufficiently pronounced to interfere with function.
(*af*) Hammertoes of such a degree as to interfere with function.
(*ag*) Corns or calluses on the sole of the foot when they are tender or painful.
(*ah*) Bormidrosis, if more than mild.

(14) *Psychiatric disorders:*
(*a*) Psychoses as specified in Army Regulations.
(*b*) Psychoneurotic disorders as specified in Army Regulations.
(*c*) Character and behavior disorders as specified in Army Regulations.

(15) *Neurological disorders:*
(*a*) Neurosyphilis of any form (general paresis, tabes dorsalis, meningovascular syphilis).
(*b*) Degenerative disorders (multiple sclerosis, encephalomyelitis, cerebellar and Friedreich's ataxia, athetoses, Huntington's chorea, muscular atrophies, and dystrophies of any type, cerebral arteriosclerosis).
(*c*) Residuals of infection (moderate and severe residuals of poliomyelitis, meningitis, and abscesses, paralysis agitans, post-encephalitic syndromes, Sydenham's chorea).
(*d*) Peripheral nerve disorder (chronic or recurrent neuritis or neuralgia of an intensity which is periodically incapacitating, multiple neuritis, neurofibromatosis).
(*e*) Residuals of trauma (residuals of concussion or severe cerebral trauma, post-traumatic cerebral syndrome, incapacitating severe injuries to peripheral nerves).
(*f*) Paroxysmal convulsive disorders and disturbances of consciousness (grand mal, petit mal, and psychomotor attacks, syncope, narcolepsy, migraine).
(*g*) Miscellaneous disorders (tics, spasmodic torticollis, spasms, brain and spinal cord tumors, operated and unoperated, cerebrovascular disease, congenital malformations, including spina bifida, if associated with neurological manifestations, meningocele, and Meniere's disease).

6. Physical Conditioning

a. A warning is here stressed that passing the Physical (Medical) examination and the Physical Aptitude Examination does not mean that a candidate is sufficiently fit physically or conditioned for the duties he will undergo immediately upon entrance to the Military Academy. Passing these examinations simply means that the candidate has a normal body and has no apparent serious medical defects. It does not insure proper physical fitness to undergo the initial training at the United States Military Academy without considerable difficulty. Because of the nature

of the new cadets' training during their first 2 months at the Academy the physical demands are necessarily great. Experience has indicated that those cadets who, prior to admission, have hardened themselves physically are best able to meet these training requirements. The cooperation of parents is enjoined to encourage candidates to participate in some form of vigorous physical exercise prior to their arrival at the Academy.

b. Much valuable time has been lost from instruction because of poor physical condition, sore feet, muscular soreness, strained arches, and many other physical impairments due to unaccustomed physical exertion. This loss can be avoided if all new cadet candidates begin to condition themselves immediately upon notification of appointment. The conditioning program may include daily exposure to sunlight, running, taking long hikes, swimming, and other types of exercise.

c. Candidates are advised to study carefully the following training hints as a basis for a thoroughgoing physical conditioning program to be pursued for as long a period as possible prior to admission to the Military Academy:

d. Care of feet.—(1) *General.*—The weaknesses or unsound conditions most often discovered in new cadets are the following:

(*a*) Tender feet with blister formation.
(*b*) Athlete's foot.
(*c*) Painful feet (weak feet).
  1. Strain of metatarsal arch.
  2. Strain of longitudinal arch.

(2) *The following general measures should be observed carefully.*—(*a*) The feet should be washed daily, carefully dried, and then powdered.

(*b*) Fresh socks should be put on each day, and if the feet perspire freely during the day, more than one change is necessary. Always wash, dry, and powder the feet before putting on fresh socks.

(*c*) Air the feet as often as possible.

(*d*) Exposure of feet to sunlight as well as walking barefoot, especially in sand, toughens the feet considerably.

(3) *Tender feet with blister formation.*—(*a*) As a preliminary measure, toughen the feet and care for them as described above.

(*b*) Make sure the socks and shoes fit properly. There should be no wrinkling of the socks, neither should they be so tight that they cramp the toes. A good test to determine that the shoes fit properly is to put them on, lace comfortably, then stand up. Test each foot separately as follows:

Stand on one foot, preferably while holding weight (60 pounds), then with thumb and forefinger grip across the broad part of the foot and try to gather leather as the thumb and finger are pinched together. If it is possible to catch hold of a wrinkle of leather the shoes are too large; if there is a noticeable give, but one is unable to grasp the leather, then the fit is good. If the thumb and finger slip off without noticeable give, the shoes are too tight.

(*c*) The wearing of two pairs of socks will aid materially in the prevention of blisters. The under pair should be thin, white cotton.

(4) *Treatment of blisters.*—See your physician.

(5) *Athlete's foot.*—(*a*) Employ all the general measures of cleanliness. Drying and powdering the feet daily will be of considerable aid in preventing spread of the infection. The fungus that causes the infection grows best in a warm, moist skin tissue. Keep the feet DRY!

(*b*) Make use of footbaths after bathing.

(*c*) Avoid using equipment of infected persons.

(*d*) See your physician for treatment and consequent elimination of the condition prior to the date of admittance.

(6) *Ingrowing toenails.*—Result of improper cutting of toenails. The nails should be cut straight across on line with end of toe. The edges should never be rounded.

(7) *Painful feet (weak feet).*—Those individuals who have not been accustomed to much actitivy on their feet will do well to begin exercising their arches in order to stand the strain of increased activity. Constant exertion of untrained muscles and ligaments supporting the arches of the feet will produce mainly two types of pain:

(*a*) *Pain in ball of foot* (because of break-down of transverse arch of foot).—The pain is localized usually in the center of the ball of the foot and is characterized by a burning sensation while standing and pain when the weight is placed on the foot in walking.

(*b*) *Pain along longitudinal arch* (result of excessive strain on foot).—This condition has feeling of sharp, knifelike, burning pain running from heel to ball of foot.

(8) Corrective exercise is extremely helpful for both of these conditions. Some corrective exercises are listed below for guidance in developing strong arches:

(*a*) Standing with toes on raised board (2 to 3 inches), rise slowly up on the toes, then return to starting position. Repeat several times and increase duration of exercise daily.

(*b*) Standing with feet parallel and about 6 to 8 inches apart, rise on toes slowly; roll on the outside of feet to heels; then slowly roll on inside of feet to toes. Resume original stance. Repeat several times, increasing duration of exercise daily.

(*c*) Sitting in a chair with legs extended to the front, move feet and toes slowly and under all possible muscular tension, in all directions; that is up, down, outward, inward, circularly, etc. Do this until fatigue is felt in the muscles of the legs.

(*d*) Lay a bath towel flat on the floor; stand on the towel with the feet on the center section of one end, the heels about 8 inches apart; turn the ankles out so that the weight rests on the outside of the feet; then, with all toes, begin pulling the towel until it is pulled entirely in between the feet. This excercise should be performed after each bath and the number of repetitions of the exercise increased daily.

(*e*) Walking around a room two or three times on the outside of the feet is an exercise that will rest the arches after exercise or exertion.

e. Legs.—It is just as important that the legs be as well conditioned as the feet. However, all exercises that involve the feet will in turn benefit the legs, and vice versa. The terrain at West Point and in the vicinity is mountainous, featured by sharp and long gradients. Exercise in walking and running over as nearly as similar terrain as is available to the candidate is advised.

f. Miscellaneous considerations.—(1) *Meals.*—Candidates should eat as wide a variety of meats, vegetables, and fruits as the available menu permits. Such eating habits will be in keeping with the menu at the

cadet mess at West Point. Avoid drinking a great deal of water, smoking, or eating candy, cookies, etc., before a meal. Drink plenty of milk. During the summer months, season food with plenty of salt to replace that lost through perspiration. On long hikes, a teaspoonful of salt in the canteen will prevent excessive thirst as well as replace that lost through perspiration.

(2) *Constipation.*—Regular body habits are the best means of preventing constipation. Develop regularity in answering nature's call. Let nothing interfere. It is important to have one good movement each 24 hours. The partaking of fluids, fruits, and vegetables freely, especially during warm months, will aid materially in preventing constipation. One should not let more than 2 days elapse without a bowel movement.

(3) *Exposure to sun.*—One should spend as much time as possible out of doors. He should condition himself to withstand long exposures to the sun and heat. A good tan is very helpful. Acquire it gradually!

7. United States Military Academy Preparatory School

Exclusively for the benefit of candidates who are serving on active duty in the armed forces of the United States, the Department of the Army maintains the United States Military Academy Preparatory School at Stewart Air Force Base, Newburgh, N. Y., where an intensive preparatory training program is conducted annually under the direction of the Superintendent of the United States Military Academy.

The mission of the Preparatory School is to assist the candidates assigned thereto to pass the entrance examinations for admission to the Military Academy; to prepare them for successful accomplishment of the academic, military, and physical training courses at West Point; and to indoctrinate them in the methods and practices of the Military Academy. The tactical and administrative organization of the Preparatory School parallels that of the Corps of Cadets wherever possible.

This is the only West Point preparatory school available to personnel serving under enlistments, or on *extended* active duty, in the Army, Air Force, Navy, Marine Corps, or Coast Guard. Attendance at the Preparatory School is limited strictly to such personnel who have been appointed as candidates (whether as principals, alternates, or competitors) from one of the sources described in section II, and who meet the physical requirements for admission to the Military Academy as determined by a preliminary physical examination.

Duly appointed candidates who enlist in any of the regular services listed above subsequent to receipt of their appointments, will be transferred to the Preparatory School upon request, provided they meet the physical requirements. There are no special or short-term enlistments solely for the purpose of attending the Preparatory School. Candidates who enlist and fail to gain admission to the Military Academy must complete the terms of their enlistments. Members of reserve components of the Army or Air Force who have been appointed as candidates

for admission to the Military Academy are eligible to attend the Preparatory School only if serving on *extended active duty;* those serving on temporary active duty are not eligible.

The basic preparatory training program is conducted from the first week in September until the March entrance examination. Candidates who take the March examination are continued in an advanced course until June. As much of the basic course as possible is repeated from March until June for candidates appointed to undergo the special June entrance examination. Transfers of March candidates must be effected by 15 January, and the transfer of June candidates is effected as soon as practicable after receipt of their nominations.

A copy of the regulations governing attendance at the United States Military Academy Preparatory School may be obtained by writing to The Adjutant General, Department of the Army, Washington 25, D.C.

SECTION IV.—ORGANIZATION AND ADMINISTRATION

	Page
1. Direction and Supervision	48
2. Board of Visitors	48
3. Officers, Headquarters and Staff	48
4. Professors, Departments of Instruction	49

ORGANIZATION AND ADMINISTRATION

1. Direction and Supervision

Direction and supervision of the Military Academy are vested by law in the Department of the Army under such officer or officers as the Secretary of the Army may select and, in accordance with this provision, the Chief of Staff has been designated as the officer in charge of all matters pertaining to the institution.

2. Board of Visitors

The Board of Visitors to the United States Military Academy, as provided by an act of Congress approved 29 June 1948, consists of:

a. The chairman of the Committee on Armed Services of the Senate;

b. Three other Members of the Senate to be appointed by the Vice President, two of whom shall be members of the Committee on Appropriations of the Senate;

c. The chairman of the Committee on Armed Services of the House of Representatives;

d. Four other Members of the House of Representatives to be appointed by the Speaker of the House of Representatives, two of whom shall be members of the Committee on Appropriations of the House of Representatives;

e. Six persons to be appointed by the President.

The law prescribes that the Board visit the Military Academy in April of each year and inquire into the state of morale and discipline, curriculum, instruction, physical equipment, fiscal affairs, academic methods, and other matters relating to the Academy which the Board may decide to consider, submitting a written report to the President regarding its views and recommendations pertaining to the Academy.

3. Officers, Headquarters and Staff

a. Superintendent and Commandant.—Maj. Gen. Bryant E. Moore, USA.

b. Headquarters and Staff.

(1) *Personal Staff.*

Aides	1st Lt. William D. Clark, Inf.
	1st Lt. Richard H. Maeder, Inf.

(2) *General Staff.*

Chief of Staff	Col. John J. Morrow, GSC.
Assistant Chief of Staff, G-1	Col. Leo V. Warner, GSC.
Assistant Chief of Staff, G-2/G-3	Col. Perry McC. Smith, GSC.
Assistant Chief of Staff, G-4	Col. Numa A. Watson, GSC.
Assistant G-4	Lt. Col. Joseph C. Russ, Inf.

(3) *Special Staff.*

Adjutant General	Col. Robert S. Nourse, AGD.
Chaplain, USMA	Rev. Frank E. Pulley.
Finance Officer	Maj. Ray C. Lewis, FD.
Fiscal Officer	Col. Harry W. Crandall, FD.
Inspector General	Col. H. Crampton Jones, IGD.

Librarian	Lt. Col. William J. Morton, Jr., FA-Ret.
Ordnance Officer	Lt. Col. Oren E. Hurlbut, Ord.
Post Engineer	Lt. Col. Francis J. Crown, CE.
Post Exchange Officer	Maj. Dayton C. Beverly, SpS-Res.
Provost Marshal	Lt. Col. Edwin N. Howell, CMP.
Public Information Officer	Lt. Col. William G. Proctor, Inf.
Quartermaster	Lt. Col. Travis T. Brown, QMC.
Registrar, USMA	Mr. Robert T. Timbers.
Secretary, Association of Graduates	Col. Charles N. Branham, CAC.
Signal Officer	Lt. Col. Winfield L. Martin, SC.
Special Services Officer	Lt. Col. Arthur W. Gustafson, SpS.
Staff Judge Advocate	Lt. Col. Edward J. Burke, JAG.
Surgeon	Col. Charles L. Kirkpatrick, MC.
Transportation Officer	Lt. Col. Richard D. Meyer, TC.
Treasurer	Col. Robert G. Gard, FA.

(4) *Operating agencies.*

Commandant of Cadets	Col. Paul D. Harkins, Cav.
Commanding Officer, 1802 Special Regt	Col. W. S. Triplet, Inf.
Director of Athletics	Mr. Earl H. Blaik.
Graduate Manager of Athletics	Lt. Col. Orrin C. Krueger, Inf.

4. Professors, Departments of Instruction

Dean of the Academic Board:
Brig. Gen. Harris Jones.

Department of Electricity:
Professor and Head of Department.—Col. Boyd W. Bartlett.
Professor.—Col. James W. Green, Jr.

Department of English:
Professor and Head of Department.—Col. George R. Stephens.
Professor.—Lt. Col. Russell K. Alspach.

Department of Law:
Professor and Head of Department.—Col. Charles W. West.

Department of Mathematics:
Professor and Head of Department.—Col. William W. Bessell, Jr.
Professor.—Col. Charles P. Nicholas.

Department of Mechanics:
Professor and Head of Department.—Col. Oscar J. Gatchell.

Department of Military Art and Engineering:
Professor and Head of Department.—Col. Thomas D. Stamps.
Professor.—Col. Vincent J. Esposito.

Department of Military Hygiene:
Professor and Head of Department.—Col. Charles L. Kirkpatrick.

Department of Military Topography and Graphics:
Professor and Head of Department.—Col. Lawrence E. Schick.
Professor.—Lt. Col. Charles R. Broshous.

Department of Foreign Languages:
Professor and Head of Department.—Col. Charles J. Barrett.
Professor.—Lt. Col. Walter J. Renfroe.

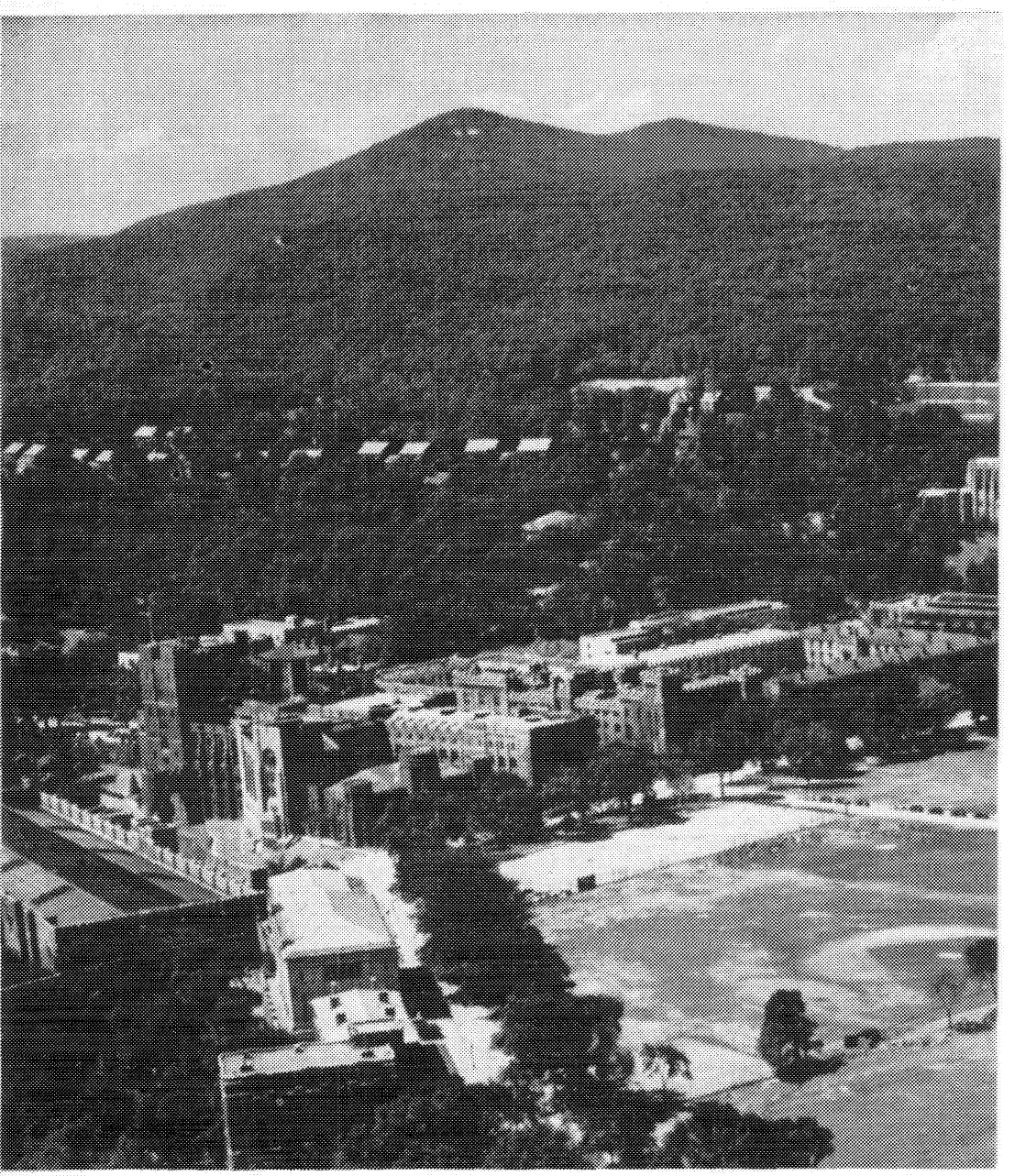
Department of Ordnance:
Professor and Head of Department.—Col. John W. Coffey.

Department of Physics and Chemistry:
Professor and Head of Department.—Col. Gerald A. Counts.
Professor.—Col. Edward C. Gillette, Jr.

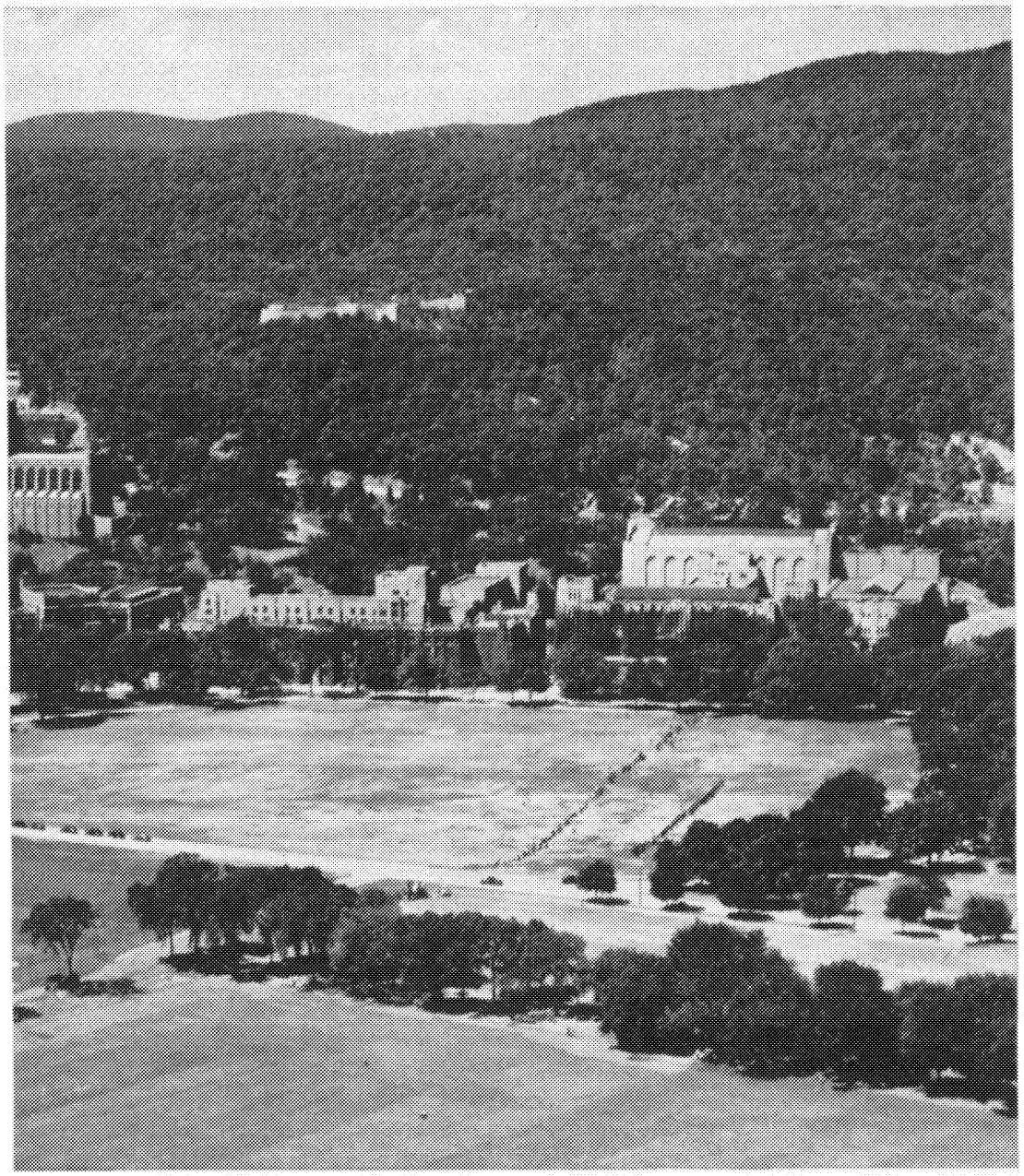
Department of Social Sciences:
Professor and Head of Department.—Col. Herman Beukema.
Professor.—Col. George A. Lincoln.

Department of Tactics:
Commandant of Cadets.—Col. Paul D. Harkins.

Associate professors, assistant professors, and instructors are detailed in the various departments in proportion to the number of students undergoing instruction.



Air View—Academic Area



SECTION V—PROGRAM OF INSTRUCTION AND COURSE OF STUDIES

	Page
1. General	53
a. Courses of instruction	53
b. Academic terms	53
c. Term-end examinations	53
d. Disposition of cadets found deficient in academic work or conduct	53
e. Summer period	53
2. Program of Instruction for Academic Year	54
3. Schedule of Instruction	55
4. Departments of Instruction	59
a. Mathematics	59
b. Foreign languages	59
c. English	59
d. Military topography and graphics	59
e. Physics and chemistry	59
f. Mechanics	59
g. Electricity	60
h. Military hygiene	60
i. Law	60
j. Social sciences	60
k. Ordnance	60
l. Military art and engineering	60
m. Tactics	61
5. Lectures	62
6. Periodic Physical Examination	63
7. Degree	63
8. Academic Prizes and Special Awards for Military Proficiency	63
9. Special Athletic Awards	66
10. Annual Report of Distinguished Cadets	66
11. Promotion after Graduation	66
12. Leaves of Absence, and Suspension of Academic and Military Duties	67
13. Library	68
14. Museum	68

PROGRAM OF INSTRUCTION AND COURSE OF STUDIES

1. General

a. Courses of instruction.—Courses include academic instruction and military training covering a period of 4 years, and of such scope and content as is determined by the Department of the Army upon the recommendation of the Superintendent. In general, courses of instruction and training are designed to develop character and the personal attributes essential to an officer, to provide a balanced and liberal education in the arts and sciences, and to provide a broad basic military education rather than that individual proficiency in the technical duties of junior officers of the various arms which is of necessity a gradual development, the responsibility for which devolves upon the graduates themselves and upon the commands and schools to which they are assigned after being commissioned.

b. Academic terms.—Two terms of academic instruction are provided, the Tuesday after Labor Day to 22 December, and 3 January to 1 June.

c. Term-end examinations.—At the conclusion of each of the two academic terms, final examinations in each course of instruction determine which cadets are proficient for the term; these cadets are then arranged in order of merit in each subject. At the end of the second term the proficient cadets are arranged in order of merit in each course for the entire year's work. They are assigned general class standings based on their average grades in the various subjects for the entire academic year. When a subject of study is completed before the end of an academic term, an examination concluding the work in that subject may be held.

d. Disposition of cadets found deficient in academic work or conduct.—Cadets deficient in studies, including Physical Education, at any examination are discharged from the Academy unless for special reasons the Academic Board recommends otherwise. Cadets exceeding at any time the maximum number of demerits allowed for 6 months are reported to the Academic Board as deficient in conduct.

e. Summer period.—The summer months of June, July, and August are utilized for practical military instruction and class leaves (see paragraph 11 below).

2. Program of Instruction for Academic Year

Class	Subject	Attendance	Length of period (minutes)
Fourth (first year)	Mathematics	Whole class daily	80
	Military topography and graphics.	One-half class daily except Saturday.	120
	Physical Education	One-half class daily except Saturday.	45
		Whole class Saturday	45
	English	One-half class daily except Saturday.	60
	Languages	One-half class daily except Saturday.	60
Third (second year).	Mathematics	One-half class daily	80
	Physics	One-half class daily	80
	Chemistry	One-half class daily (91 periods).	80
	Languages	One-half class daily	70
	English	One-half class daily except Saturday (63 periods).	60
		One-half class daily (15 periods).	80
	Military psychology and leadership.	One-half class daily except Saturday (27 periods).	60 or 120
	Military topography and graphics.	One-half class daily except Saturday.	120
Second (third year).	Mechanics of fluids	One-half class daily	80
	Mechanics of solids	One-half class daily	80
	Electricity	Whole class daily (158 periods).	80
		One-half class daily (27 periods).	80
	Military instructor training	One-half class daily (23 periods).	80
	Military correspondence	One-half class daily (4 periods)	80
	Social sciences (geography, government and history).	Whole class daily except Saturday.	60
First (fourth year).	Military art and engineering	Whole class daily (182 periods).	80
		One-half class daily (15 periods).	80
	Social sciences (economics and international relations).	One-half class daily	70
	Ordnance	One-half class daily (94 periods).	70
	Military hygiene	One-half class daily (12 periods).	60
	Tactics	One-half class daily (15 periods).	60
	Law	One-half class daily except Saturday.	60
	Military psychology and leadership.	One-half class daily except Saturday.	60
After 3 p. m. (all classes).	Tactics	2 attendances a week	60
	Physical education	2 attendances a week (36 periods).	75

Detailed descriptions of the work in each department appear in paragraphs 3 and 4. The average numbers of periods available for the courses prescribed in table are as follows:

	1st class	*2d, 3d, and 4th classes*
Whole class daily	212	213
Half class daily	106	106
Half class daily (except Saturday)	93	91
Two attendances a week	72	72

3. Schedule of Instruction

FOURTH CLASS

Department	Subject	Number of recitation or lecture periods	Length of recitation or lecture periods	Number of laboratory or practical work periods	Length of laboratory or practical work periods	Total number of periods	Total number of hours
	Between 7:55 a. m. and 3 p. m. (academic day)						
Mathematics	Algebra	39	1⅓			39	52
	Plane and spherical trigonometry.	37	1⅓			37	49
	Solid mensuration	15	1⅓			15	20
	Slide rule	5	1⅓			5	7
	Plane and solid analytical geometry.	83	1⅓			83	111
	Calculus	34	1⅓			34	45
Military Topography and Graphics.	Graphics			91	2	91	182
Tactics	Physical education I			123	¾	123	92
English	Fundamentals	14	1			14	14
	Composition	36	1			36	36
	Readings	14	1			14	14
	Public speaking	25	1			25	25
Foreign Languages	Languages	91	1			91	91
	Subtotal	393		214		607	738
	After 3 p. m.						
Tactics	Practical military training (twice a week).			72	1	72	72
	Physical education I (twice a week).			36	1¼	36	45
	Parades (twice a week in September and May).			16	1	16	16
	Reviews and inspections			45	1	45	45
	Subtotal			169		169	178
	Total	393		383		776	916

THIRD CLASS

Department	Subject	Number of recitation or lecture periods	Length of recitation or lecture periods	Number of laboratory or practical work periods	Length of laboratory or practical work periods	Total number of periods	Total number of hours
	Between 7:55 a. m. and 3 p. m. (academic day)						
Mathematics	Differential and integral calculus.	79	1⅓			79	105
	Differential equations	10	1⅓			10	13
	Statistics	17	1⅓			17	23
Physics and Chemistry	Physics	92	1⅓	17	2	109	157
	Chemistry	70	1⅓	20	2	90	133
Foreign Languages	Languages	106	1⅙			106	124
Military Topography and Graphics.	Military topography			91	2	91	182
English	Literature	63	1			63	63
		15	1⅓			15	20
	NOTE.—Advanced composition required throughout year.						
Tactics	Tactics and technique			28	2	28	56
	Subtotal	452		156		608	876
	After 3 p. m.						
Tactics	Practical military training (twice a week).			72	1	72	72
	Physical education II			36	1¼	36	45
	Parades (twice a week in September and May).			16	1	16	16
	Reviews and inspections (once a week).			45	1	45	45
	Subtotal			169		169	178
	Total	452		325		777	1054

SECOND CLASS

Department	Subject	Number of recitation or lecture periods	Length of recitation or lecture periods	Number of laboratory or practical work periods	Length of laboratory or practical work periods	Total number of periods	Total number of hours
	Between 7:55 a. m. and 3 p. m. (academic day)						
Mechanics	Analytical mechanics	68	1⅓			68	91
	Strength of materials	36	1⅓			36	48
	Thermodynamics	40	1⅓	15	2	55	83
	Fluid mechanics	43	1⅓	6	2	49	69
Electricity	D. c. and a. c. circuits and machinery.	80	1⅓	21	2	101	148
	Electronics and communications.	50	1⅓	19	2	69	105
	Nuclear physics	15	1⅓			15	20
Tactics	Military instructor training.	23	1⅓			23	31
	Military correspondence	4	1⅓			4	5
Social Sciences	History of modern Europe	68	1			68	68
	History of Far East	30	1			30	30
	Government	45	1			45	45
	Geography	40	1			40	40
	Subtotal	542		61		603	783
	After 3 p. m.						
Tactics	Practical military training (twice a week).			72	1	72	72
	Physical education III			36	1¼	36	45
	Parades (twice a week in September and May).			16	1	16	16
	Reviews and inspections (once a week).			45	1	45	45
	Subtotal			169		169	178
	Total	542		230		772	961

FIRST CLASS

Department	Subject	Number of recitation or lecture periods	Length of recitation or lecture periods	Number of laboratory or practical work periods	Length of laboratory or practical work periods	Total number of periods	Total number of hours
	Between 7:55 a. m. and 3 p. m. (academic day)						
Military Art and Engineering.	Military history	106	1⅓	------	------	106	141
	Military engineering	88	1⅓	3	2	91	123
Social Sciences	Economics	41	1⅙	------	------	41	48
	Economics of security	20	1⅙	------	------	20	23
	International relations	46	1⅙	------	------	46	54
Ordnance	Metals	4	1⅙	------	------	4	5
	Automotive engineering and matériel.	19	1⅙	11	2	30	44
	Ammunition engineering and matériel.	29	1⅙	------	------	29	34
	Weapons engineering and matériel.	25	1⅙	4	2	29	37
Military Hygiene	Military hygiene	12	1	------	------	12	12
Law	Elementary law	21	1	------	------	21	21
	Constitutional law	13	1	------	------	13	13
	Criminal law	19	1	------	------	19	19
	Evidence	17	1	------	------	17	17
	Military law	20	1	------	------	20	20
Tactics	Military psychology and leadership.	------	------	52	1	52	52
	Tactics and technique	15	1⅓	36	2	51	92
	Subtotal	495	------	106	------	601	755
	After 3 p. m.						
Tactics	Practical military training (twice a week).	------	------	72	1	72	72
	Physical education IV	------	------	36	1¼	36	45
	Parades (twice a week in September and May).	------	------	16	1	16	16
	Reviews and inspections	------	------	45	1	45	45
	Subtotal	------	------	169	------	169	178
	Total	495	------	275	------	758	933

4. Departments of Instruction

a. Mathematics.—The course includes the subjects of college algebra, the slide rule, plane and spherical trigonometry, solid mensuration, plane and solid analytic geometry, calculus, differential equations, and the elements of statistics.

b. Foreign language.—Each cadet studies one foreign language—French, Spanish, Portuguese, Russian, or German. The selection is based upon former language study primarily and thereafter upon the cadet's own choice if the prescribed quotas for the different languages have not yet been filled.

The cadet follows a course in his selected language throughout his first 2 years. His program starts with a thorough study of pronunciation and then proceeds to practice in speaking. Reading and writing practice and study of the grammar are limited at first but thorough in the end. In the first year the cadet completes the grammar and acquires considerable familiarity with the spoken language. In the second year he proceeds to composition, reading (partly military), comprehension of lectures in the foreign tongue on the civilization of its country, and further constant practice in speaking.

c. English.—Instruction in this department comprises two courses—one given to the Fourth Class, one to the Third Class. The Fourth-Class course includes the study of the fundamentals of grammar, punctuation, diction, sentence structure, expository writing, public speaking, and selected readings from modern writers. The Third Class course includes advanced expository composition and a study of literature of the Western World with emphasis upon English and American authors.

d. Military topography and graphics.—The course in military topography includes surveying, military sketching, terrain appreciation, the principles and methods of map construction, map and aerial photograph reading, stereoscopy, and military applications.

The course in graphics includes the use of drawing instruments, lettering, descriptive geometry, pictorial representation, technical sketching, making and interpreting charts and graphs, and working drawings, detail and assembly for machines and simple structures.

e. Physics and chemistry.—(1) *Physics.*—This department conducts an introductory course in general physics, covering the subjects of elementary mechancis, properties of matter, wave motion, sound, heat, electricity and magnetism, light, and modern physics.

(2) *Chemistry.*—The course in chemistry, given to all Third Classmen, is an introduction to the principles of general inorganic chemistry. The scope and difficulty of the course is that covered by a standard college text such as General College Chemistry by Richardson and Scarlett.

f. Mechanics.—The course includes analytical mechanics (statics, kinematics, and kinetics), strength of materials, engineering thermodynamics, and fluid mechanics. Standard college textbooks are used.

Emphasis is placed on the development and practical illustration of fundamental principles rather than on specialization in preparation for any particular field of engineering.

g. Electricity.—The course in electricity comprises a survey of the principles of electrical engineering, including both direct and alternating current circuits and machinery; an introduction to electronics, with particular emphasis on the application of electron tubes to electrical communications; and a brief survey of nuclear physics. Standard college textbooks are used throughout. Generous use is made of laboratory exercises to supplement the classroom work, nearly one-quarter of the class meetings being devoted to laboratory work in circuits, machinery and electronics.

h. Military hygiene.—The objective of this course is to afford the graduating cadet a liberal outlook on the role medical sciences play in a national effort. It includes a brief on the basic sciences of anatomy, physiology and pharmacology, role of preventive medicine, responsibilities of staff and command in military medicine, preventive psychiatry; the strategic and tactical influence of disease in World Wars I and II is stressed.

i. Law.—The course of instruction comprises the study of the basic principles of elementary law, constitutional law, criminal law, evidence, and military law.

j. Social sciences.—First Class courses include studies of economic principles, current economic problems, the economic implications of military preparedness in peace and war, and international relations. Second Class courses include the study of economic industrial geography, the history of modern Europe and of the Far East, government of the United States, and contemporary foreign governments including the operation of military government in Germany and Japan.

k. Ordnance.—The purpose of the course of instruction conducted by this department is to give the cadets a basic knowledge of the principles involved in the design, production, and functioning of weapons, ammunition, and automotive vehicles. This basic knowledge is meant to serve as a foundation upon which more detailed and specialized knowledge may be built when necessity or opportunity arises. It also furnishes an understanding of the importance of proper maintenance and intelligent employment of ordnance equipment. In this course the cadet sees the practical application of many of the principles studied in physics, chemistry, electricity, and mechanics. The powers and limitations of weapons and ammunition are studied, but emphasis is placed on typical mechanisms rather than minute details of construction and operation. Interior, exterior, and terminal ballistics are included in the course.

l. Military art and engineering.—This department conducts two courses: military history and military engineering.

The course in military history is a survey course in which the cadet is made acquainted with the most important fields of military history: great

captains before Napoleon, campaigns of Napoleon, American Civil War, World War I, and World War II. Throughout the course, instruction is given in the principles of strategy.

The course in military engineering consists of two subcourses: (1) structures and (2) Army engineering.

The subcourse in structures deals with the analysis and design of simple steel and wood structures, with emphasis on bridges. The upper sections also study simple indeterminate structures.

The subcourse in Army engineering includes instruction in military bridges, military roads, demolitions, air fields, field fortifications, and camouflage.

m. Tactics.—(1) *General military instruction.*—(*a*) *Objectives.*—The objectives of the Department of Tactics include not only the routine administration and discipline of the Corps of Cadets but also the conduct of the requisite basic military training to provide a balanced military and physical education for the potential Regular Army officer. The guiding principle in the selection of courses is that they shall furnish training in matters which should be of value to the progressive continued development of all officers. Overemphasis upon specialties is avoided, both because of lack of instructional time and because specialized training is a function of unit training and of the various service and staff schools conducted by the Departments of the Army and Air Force for the progressive military education of commissioned officers. Weight toward graduation standing, similar to that given the various academic subjects, is assigned to the following headings under which each cadet is rated by the Department of Tactics: tactics, conduct, military physical efficiency, and aptitude for the service.

(*b*) *Methods used to attain objectives.*

1. The Department accomplishes the first of its objectives by exercising continuous and strict supervision over the daily life of the cadet and by demanding prompt, precise, and thorough performance of all duties. This portion of the training is essentially one of character development and is designed to inculcate the traditional soldierly attributes.

2. The purely military portion of the cadet's training includes instruction currently pertinent to the separate and combined arms. Subcourses are given in organization, unit administration and mess management, staff functioning, psychology of military leadership, weapons and matériel, and tactics and technique.

(2) *Physical education.*—A progressive course of physical education is conducted by the Department of Tactics, under the direction of the Director of Physical Education. This course is designed to equip cadets with as high a degree of physical and mental adjustment suitable to a military career as can be obtained from a physical training program.

Basic physical skills, coordination, and condition (fitness) are developed in the fourth class year, followed in later years by progressive instruction in military skills and sports of carry-over value in the professional life. An understanding and appreciation of the value of physical training for the Army and training in leadership are stressed through instructor assignments in the first class year. Training in posture as well as in voice and command are the functions of this section. Throughout the 4 years, a highly developed intramural program of rugged body-contact sports indoctrinates cadets with aggressiveness and ability to perform under stress. Relative proficiency in each class is determined by a thorough system of objective method testing and grading.

(3) *Leadership training.*—In addition to the informal instruction in leadership conducted continuously by each Company Tactical Officer, the Department of Military Psychology and Leadership, a subdepartment of the Department of Tactics, conducts, throughout the 4 years, a formal progressive course in basic psychology and in the psychology of military leadership. This course provides a cultural background in psychology essential to the cadet's general education and a basic knowledge and understanding of human nature designed to assist the graduate in most effectively leading the American citizen soldier.

(4) *Aptitude for the Service.*—Periodically during their 4-year course at West Point cadets are rated and graded in aptitude for the military service. This rating is accomplished by having aptitude ratings submitted for each cadet by other cadets and by officers who have had the best opportunities to observe the cadet in the performance of his duties. High ranking in aptitude for the service is used as a basis in the selection of cadet officers and noncommissioned officers. Cadets found deficient in aptitude are subject to discharge from the Military Academy.

(5) *Conduct.*—During their 4 years at West Point cadets are required to comply with certain specific regulations and customs which are an integral part of a cadet's life. If the cadet fails at any time to comply with these regulations or does not maintain himself and his equipment at the standard set by the authorities, he is awarded demerits for his derelictions. Cadets are given a certain allowance of demerits for each 6-month period. A cadet who exceeds this allowance may be discharged from the Military Academy for deficiency in conduct.

5. Lectures

The program of instruction is supplemented by lectures and lecture-conferences presented by national leaders in civilian and military affairs. The General Lecture Committee of the Academic Board is responsible for the general administration of the program insofar as the engagement of visiting lecturers is involved. Lectures are organized in four divisions. The number in each series presents the record for 1948–49:

a. Superintendent's series (11).—By leading officers in the armed forces, on technical and professional subjects.

b. General (3).—By visiting educators, industrial leaders, and public officials.

c. Departmental (35).—By civilian and military personnel, in amplification of the departments' programs.

d. Special (3).—The Kermit Roosevelt fund lectures, involving the annual exchange of British and American military lecturers, belong to this category.

6. Periodic Physical Examination

Periodic physical examinations are conducted by the Surgeon, United States Military Academy. Cadets found to be permanently disqualified physically are discharged.

7. Degree

The degree of bachelor of science is conferred at the time of graduation under the provisions of an act of Congress approved 25 May 1933, as amended by the act of Congress approved 8 July 1937, which provides: "that the superintendents of the United States Naval Academy, the United States Military Academy, and the United States Coast Guard Academy may, under such rules and regulations as the Secretary of the Navy, the Secretary of War, and the Secretary of the Treasury may prescribe, confer the degree of bachelor of science upon all graduates of their respective academies, from and after the date of the accrediting of said academies by the Association of American Universities: *Provided*, That on and after the date of the accrediting of the said academies by the Association of American Universities the superintendents of the respective academies may, under such rules and regulations as the respective secretaries may make, confer the degree of bachelor of science upon such other living graduates of the said academies as shall have met the requirements of the respective academies for such degree."

The United States Military Academy was accredited by the Association of American Universities on 31 October 1925.

8. Academic Prizes and Special Awards for Military Proficiency

Awards are made annually by patriotic societies and certain individuals to cadets of the graduating class for outstanding academic performance and for military proficiency, as follows:

a. By the Sons of the Revolution in the State of New York, the cup, on which is inscribed each year the name of the cadet having the highest rating in military efficiency. Cup presented in 1910.

b. By Mrs. Francis Vinton Greene, as a memorial to the late Maj. Gen. Francis Vinton Greene, Class of 1870, U. S. M. A., to the cadet

standing No. 1 in general order of merit at graduation. First presented in 1929.

c. By Gen. Charles G. Dawes, the Pershing sword, to commemorate the fact that General Pershing was first captain of the Corps of Cadets in 1886. Awarded to the graduating cadet captain and brigade commander. First presented in 1929.

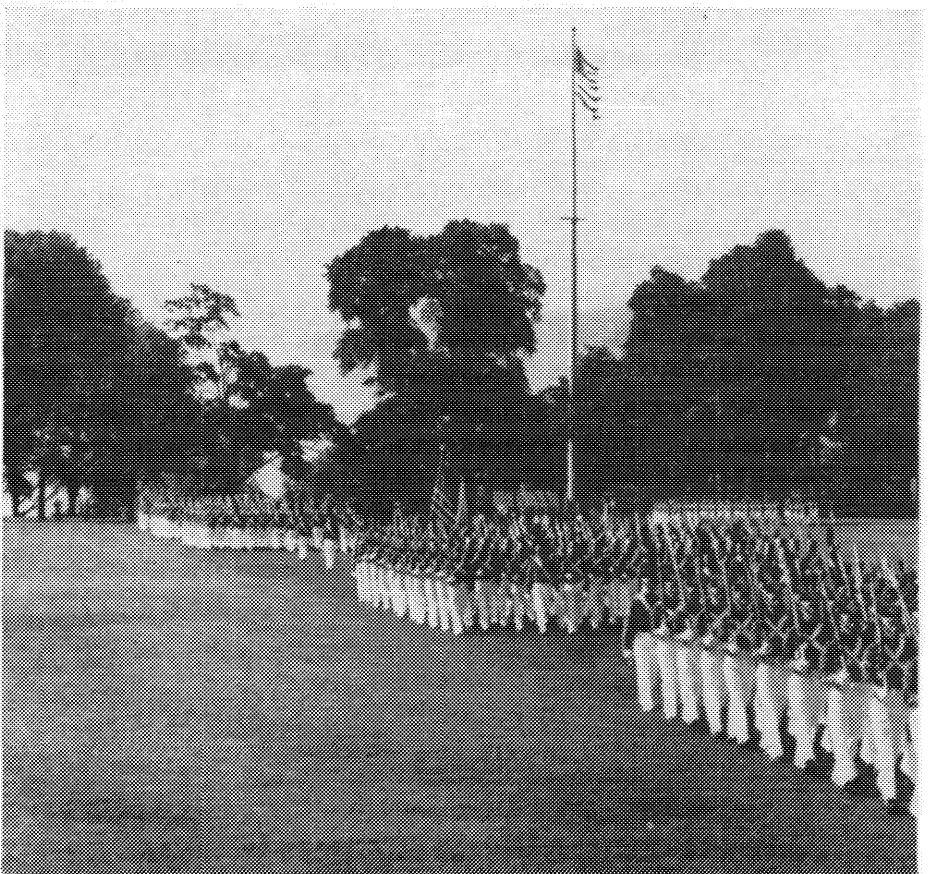
d. By the National Commandery, Military Order of Foreign Wars of the United States, to the cadet standing highest in economics. First presented in 1929.

e. By the National Society, Daughters of the American Revolution, to the cadet standing highest in mechanics. First presented in 1930.

f. By the United Daughters of the Confederacy, to the cadet standing highest in mathematics. First presented in 1931.

g. By the Women's Relief Corps, Auxiliary to the Grand Army of the Republic, to the cadet standing highest in military topography and graphics. First presented in 1932.

h. By the Colonial Daughters of the Seventeenth Century, to the cadet standing highest in English. First presented in 1934.



i. By the National Organization of the American Legion, to the cadet standing highest in chemistry. First presented in 1935.

j. By the Veterans of Foreign Wars of the United States, to the cadet standing highest in physics. First presented in 1937.

k. By the Ladies Auxiliary to the Veterans of Foreign Wars of the United States, to the cadet standing highest in ordnance. First presented in 1939.

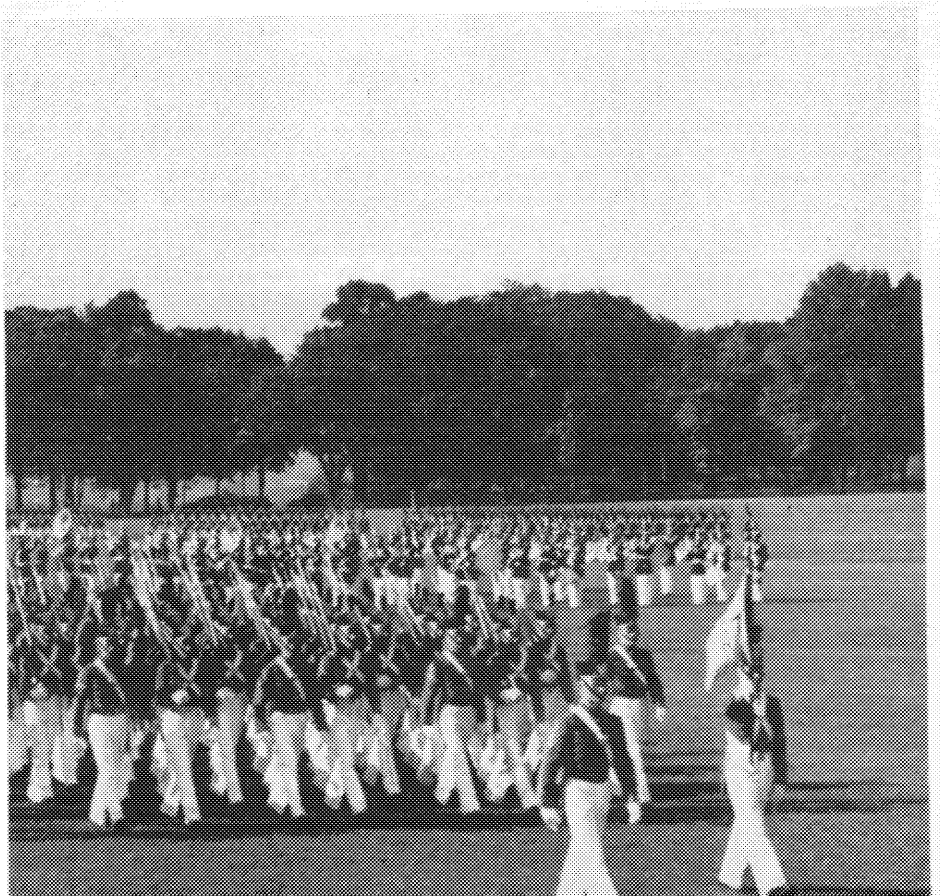
l. By the American Bar Association, to the cadet standing highest in law. First presented in 1941.

m. By the National Society, Daughters of Founders and Patriots of America, to the cadet standing highest in military hygiene. First presented in 1942.

n. By Mrs. William A. Mitchell, as a memorial to the late Brig. Gen. William A. Mitchell, to the cadet standing highest in military engineering and military history. First presented in 1942.

o. By the Military Order of the World War, to the cadet who has made the greatest improvement during his course. First presented in 1942.

p. By the Steuben Society of America, to the cadet standing highest in modern languages. First presented in 1936.



q. By Mr. F. Gygax, Consul General of Switzerland, for excellence in intercollegiate debating. First presented in 1947.

r. By the Armed Forces Communications Association, for the highest rating in electricity. First presented in 1947.

s. By the Army and Navy Union, for the highest rating in tactics. First presented in 1947.

9. Special Athletic Awards

The following special awards are presented annually to cadets and organizations whose performance has been outstanding:

a. The Army Athletic Association Trophy to the cadet of the first class who has rendered the most valuable service to athletics during his career as a cadet.

b. The Edgerton Trophy to the outgoing football captain.

c. The Hughes Trophy to the most valuable player on the football team.

d. The W. P. Fickes Memorial Trophy to the outgoing lacrosse captain.

e. The Sands Fencing Trophy to the outstanding fencer.

f. The Frances Dorothy Beebe Trophy for excellence in foils.

g. Pierce Currier Foster Memorial Trophy to the best all-round gymnast.

h. Bankers' Trust Co. Trophy to the cadet company excelling in intramural athletics during the year.

i. The Gen. Palmer E. Pierce Trophy to the cadet company excelling in intramural football during the year.

j. The Eber Simpson Memorial Trophy to the outgoing basketball captain.

10. Annual Report of Distinguished Cadets

Annually in the month of June, the superintendent reports to the Department of the Army, for publication in the Army Register, the names of distinguished cadets on the general merit roll of each class and on the graduating merit roll whose records meet the requirements fixed by the Academic Board. Not more than 6 percent of each roll are so included.

Cadets who at any annual examination are classed as distinguished wear a five-pointed star, three-fourths of an inch in diameter, on each side of the collar of the dress coat and the full dress coat. This mark of academic distinction is effective for 1 year after the announcement of the award.

11. Promotion After Graduation

When any cadet of the United States Military Academy (other than foreign cadets) has completed the prescribed course of instruction, and

meets the required physical standards, he may upon graduation be promoted and appointed a second lieutenant in the Regular Army or United States Air Force, and whenever any such appointment would result in there being a number of active list commissioned officers in the Regular Army or in the United States Air Force in excess of the authorized active list commissioned officer strength, such strength shall be temporarily increased as necessary to authorize such appointment (sec. 506 (f), Public Law 381, 80th Congress).

Revocation of commission.—Under the provisions of the act of Congress approved 25 July 1939 (53 Stat. 1074; 10 U. S. C. 484a), authorizing revocation by the Secretary of War of the commission of an officer on the active list, initially commissioned after 25 July 1939, who has had less than 3 years of continuous service as a commissioned officer of the Army at the date of revocation, it is prescribed that: "*a.* In the case of officers serving under revocable commissions * * * the Secretary of War may revoke the commission of any officer whose conduct or performance of duty is such as not to justify his retention as an officer of the Army, or whose retention as an officer of the Army is not justified for other good and sufficient reasons appearing to the satisfaction of the Secretary of War. The action of the Secretary of War is final and conclusive. * * * *d.* An officer whose commission is revoked under this authority will be entitled only to accrued pay and allowances upon discharge. * * * *f.* These regulations become effective as to all officers originally commissioned in the Regular Army after July 25, 1939."

12. Leaves of Absence and Suspension of Academic and Military Duties

Academic duties are suspended during the months of June, July, and August. Although the summer period is primarily devoted to practical military instruction, class leaves are given during this period as follows: First Class, 3 weeks; Second Class, 4 weeks; Third Class, 4 weeks. Academic duties are suspended for a period of approximately 10 days at the close of the fall term (over the Christmas holiday period) and are suspended for approximately 4 days during the middle of the second term. At this time cadets of the First, Second, and Third Classes who are not undergoing final examinations, and whose disciplinary records and credit balance with the Treasurer, United States Military Academy warrant it, are granted a short leave of absence.

Cadets of the First Class are granted not to exceed nine week-ends leave during the year, subject to the requirements that such leave does not interfere with duty, and that the individual cadet's academic and disciplinary records and credit balances warrant the leave.

Academic and other duties are suspended for all classes on such national holidays as may be designated by the Department of the Army.

13. Library

Cadets have free access to the library, which comprises approximately 136,000 volumes, with an extensive collection of maps, manuscripts, and rare books. The collection contains substantially all standard books on the subjects taught in the Military Academy, and is especially complete in military subjects. Its card catalogs (about 400,000 cards) are arranged with the special object of saving the time of cadets. The library is open on weekdays from 8:30 a. m. to 6 p. m.; Sundays and holidays from 2 p. m. to 6 p. m.; and in the evenings from 7 p. m. to 9. p m. for cadets only.

14. Museum

The West Point Museum, located in the main headquarters building, houses a large collection of items of historical value related to the United States Military Academy, West Point, and the famous exploits of its graduates. In addition, it has one of the finest collections of small arms and ammunition in the country. It is open to visitors from 10:30 a. m. to 4:30 p. m. on weekdays, except Mondays, and from 1 p. m. to 5 p. m. on Sundays and holidays.

SECTION VI—GENERAL AND MISCELLANEOUS

	Page
1. Pay and Allowances of Cadets	70
2. Mileage Allowance	70
3. Deposit Upon Entrance	70
4. Uniforms and Supplies	70
5. Activities and Social Life	71
6. Intercollegiate Athletics	72
7. Authorized Religious Activities	73
8. Association of Graduates, USMA	73

GENERAL AND MISCELLANEOUS

1. Pay and Allowances of Cadets

The pay of the cadet is $936 per annum plus the cost of one ration per day. The latter item varies with the cost of food. The total of such pay and allowances, when added to the new cadet's initial deposit, is sufficient to meet the cadet's actual needs at the Academy. Obtaining money from outside sources is regarded with disfavor, unless it be for purposes specifically authorized in the Budget of a Cadet's Pay or in regulations, United States Cadet Corps.

2. Mileage Allowance

Except for members of the armed forces, who are provided transportation or are allowed mileage as provided in Army Regulations, cadets are allowed 5 cents per mile for traveling expenses from their homes to the Military Academy. Such mileage is credited to the cadet's account after his admission unless he makes a specific written request to the Commandant of Cadets that the mileage allowance be sent to his parents.

3. Deposit Upon Entrance

The cost of the uniform and personal equipment with which the new cadet is provided immediately after admission is approximately $300. This sum must be deposited with the treasurer of the Academy before the cadet is admitted. Parents of candidates are advised to forward the required deposit by draft, payable to the Treasurer, United States Military Academy, who will credit it to the new cadet's account. Cadets who exercise proper economy will have upon graduation a sufficient balance to their credit with the treasurer to purchase the initial supply of uniforms and equipment which they will need as officers.

Candidates are advised, on leaving home for admission, to take with them no more money than is needed for traveling expenses. Any balance in their possession at the time of admission is deposited to their credit with the treasurer.

4. Uniforms and Supplies

Cadets are required to wear the prescribed uniform. All articles of their uniform and equipment, including bedding and all wearing apparel are of a designated pattern and are either Government property issued to cadets for use during their stay at the Military Academy or are sold to cadets at West Point at regulated prices. It is neither necessary nor desirable for candidates to make any purchases prior to their arrival at the Academy, although there is no objection to their bringing with them such supplies of handkerchiefs and toilet accessories as they may have. Should a trunk be brought, it should be of the Army trunk locker type, 29¾ by

16 by 12 inches in size, and in good condition. If a candidate does not have such a trunk, he should wait until his arrival at the Academy to procure one. Everything needed by a cadet during his stay at the Military Academy is available at West Point.

5. Activities and Social Life

Contrary to popular opinion, the cadets do not spend all their time parading, shining shoes, and studying; they enjoy practically the same recreational activities as any college students.

During the summer there is swimming in Delafield Pond. Picturesque Flirtation Walk, winding for three-quarters of a mile along the majestic Hudson, offers a peaceful and shady retreat from the walls of barracks. Cadets stationed at Camp Buckner enjoy swimming, canoeing, fishing, and sailing on Lake Popolopen. There are two or more football trips to New York City and Philadelphia, where the bright lights of the cities are a welcome diversion. During the winter months, ice skating at Smith Rink and skiing on the Constant Slope are extremely popular. Weekly hops are held in either the gymnasium or Cullum Hall, with music furnished by the Cadet Dance Band, or one of the two Post orchestras. Cadets may attend movies in the Army Theater on Saturday nights, Sundays, and holidays. Frequently outside talent, sponsored by the cadet special program committee, is brought to the Post for Sunday evening performances.

The cadet hostess assists in planning and supervising the social life of cadets. Her office and lounge in Grant Hall and the cadet reception room in the same building provide a homelike atmosphere in sharp contrast to the austerity of cadet barracks. There, cadets may meet and entertain their friends.

Aside from general recreational activities, there are many organized extracurricular activities. Standing cadet committees performing functions of great importance include the Honor Committee, whose job it is to interpret and apply the honor system, the Hop Committee, which plans and schedules social functions.

Young men with a musical bent are encouraged to indulge their talents. Cadet Protestant, Catholic, and Jewish choirs sing at religious services on the Post and usually make several trips each year to sing in New York and Washington. For those who prefer a more informal type of music, there are the Cadet Glee Club and the Cadet Dance Band.

As members of the radio, model airplane, model railroad, and camera clubs, technically minded hobbyists will find pleasure and opportunities to test their skill.

Those to whom literary activities appeal may seek outlets for their talents in The Howitzer, yearbook of the Corps of Cadets; The Pointer, official magazine of the Corps of Cadets; and Bugle Notes, the cadet handbook, more commonly known as the Plebe Bible. Cadet press

representatives conduct interviews and prepare hundreds of releases for hometown newspapers.

Recently organized are clubs corresponding to each foreign language taught in the regular curriculum; Portuguese, Spanish, German, Russian, and French, where members, in addition to devoting further study to the language, seek to broaden their knowledge of the various countries and peoples.

The One Hundredth Night Show, the time-honored dramatic highlight presented annually by the Dialectic Society, is written, produced, and enacted solely by cadets.

The most extensive activity, in terms of cadet participation, is the West Point debate council. It organizes and administers the following activities for some 230 cadets of all 4 classes (all statistics from 1948–49 season):

Speech course	110 cadets.
Intramural debate	90 cadets, 150 debates.
Intercollegiate debate, national and foreign.	84 cadets, 140 debates (60 at home, 80 in various parts of the United States).
Intramural oratorical contests	15 cadets, 23 orations.
Intercollegiate panel discussions	8 cadets, 4 discussions.
Intercollegiate conference on United States foreign policy.	4 cadets.

The national invitation debate tournament, with 34 teams engaged, is held annually at West Point. Some 150 cadets assist in its administration, and West Point team of two participates.

Organized extracurricular activities are directed and administered almost entirely by the cadets themselves subject to the approval of the superintendent. There is an officer in charge of each activity, who acts in an advisory capacity. From these activities cadets acquire a wealth of specialized knowledge or develop latent talent, which subsequently will serve them well and be a source of pleasure and relaxation in their careers as officers.

6. Intercollegiate Athletics

In addition to physical education instruction and a well-rounded intramural program, the Military Academy maintains a very comprehensive intercollegiate program. Teams representing the Academy meet outside competition in the following sports: baseball, basketball, cross country, fencing, football, golf, gymnastics, hockey, lacrosse, rifle, soccer, squash, swimming, tennis, track, and wrestling.

The graduate manager of athletics arranges schedules for varsity, junior varsity, and plebe teams in these sports. It is estimated that each

year approximately 1,000 different cadets compete in at least one sport in this program.

7. Authorized Religious Activities

a. Protestant.—Protestant services of worship are held in the Cadet Chapel during the academic year, and out-of-doors during the months of summer training. Three services are held each Sunday in the Cadet Chapel, the last of these being a service of Holy Communion, at which attendance is voluntary. On the first two Sundays of the month, the early service is a service of the Holy Communion. Members of all Christian churches are welcomed to the Communion Table. The two regiments of cadets alternate in their attendance at the early service and the 11 o'clock service. During the summer months services are held at Camp Buckner and Battle Monument. Throughout the Lenten season, daily services are held in the Chaplain's office. All Protestant services are nondenominational in character, following a form approved by the larger Protestant communions. A cadet choir of 165 voices participates in the Cadet Chapel services.

b. Catholic.—The Catholic cadets fulfill their religious obligations by attending Mass at Holy Trinity Chapel on the Post. The Chapel is served by two priests in residence. Confessions are heard on Saturdays and as desired. The first and second regiments alternate in attending 8 and 9:15 a. m. Mass in order to facilitate frequent reception of Holy Communion. A cadet Catholic Choir is trained and renders music for High Masses and all other ceremonies. During Lent, October, and May daily Mass is celebrated at 7 a. m. and 5:30 p. m.

c. Jewish.—Jewish services are conducted each Sunday morning at 7:40 in the Old Cadet Chapel under the supervision of a Rabbi, the Acting Jewish Chaplain. Services are also conducted on the various Jewish holy days and festivals. There is a cadet choir and a cadet organist. The chaplain is at the Academy from Saturday noon until Sunday noon.

8. Association of Graduates, USMA

The Association of Graduates, USMA, is incorporated under the laws of the State of New York and is composed of all graduates and former cadets who have assented to its constitution and bylaws. Approximately 95 percent of the more than 11,000 living graduates, and many former cadets who are not graduates, are members of the association.

The purposes of the association are to acquire and disseminate information on the history, activities, objectives, and methods of the United States Military Academy; to acquire and preserve historical materials relating to that institution; and to encourage and foster the study of military science there by young men. For these purposes the office of the association at West Point maintains records of all graduates.

In addition to its many other activities the association sponsors the publication of Assembly, the quarterly alumni magazine, and the annual Register of Graduates and Former Cadets, USMA.

SECTION VII—DESCRIPTION OF ENTRANCE EXAMINATIONS

	Page
1. Mathematics	75
2. English	76
3. United States History	77
4. West Point Aptitude Test	79
5. Sample Answer Sheet and Key	81

REGULAR AND VALIDATING EXAMINATIONS

1. Mathematics

The entrance examination in mathematics consists of two parts, each one and one-half hours long. Regular candidates take the entire examination; validating candidates take only the first part. The general subject-matter coverage, including problems in algebra and plane geometry, will be the same in both parts. However, individual problems in the first part will require less time for solution than those in the second.

The following problems illustrate the difficulty and the subject-matter coverage of the examination. A sample answer sheet and a list of the correct answers for these questions follow the description of the West Point Aptitude Test.

VALIDATING EXAMINATION AND PART I—REGULAR EXAMINATION

Directions.—In this examination, five possible answers are given immediately following each problem. The five answers are lettered A, B, C, D, and E. On the answer sheet you will find, for each problem, five pairs of lines lettered A to E. Solve each problem, using the blank space at the right of the page for scratchwork. Then indicate on the answer sheet the one correct answer by making a heavy black mark between the lines under the letter corresponding to that answer.

NOTE.—Figures accompanying problems in geometry and trigonometry are not necessarily drawn to scale.

USE THIS SPACE FOR FIGURING.

1. If $p^n = x$, $p^{-n} = (?)$

   (A) $-x$ (B) $\frac{-x}{n}$ (C) $\frac{1}{x^{2n}}$

   (D) $\frac{1}{x^n}$ (E) $\frac{1}{x}$

2. Two triangles of equal areas have bases equal to 10 inches and 16 inches, respectively. What is the ratio of the altitude of the first triangle to the altitude of the second triangle?

   (A) 25 to 64 (B) 5 to 8 (C) $\sqrt{10}$ to 4

   (D) 4 to $\sqrt{10}$ (E) 8 to 5

3. As shown in Figure 1, town P is 50 miles due east of airfield T. A plane flies in a direction $x°$ north of east from T. When the plane is directly north of P, how many miles is it from T?

   (A) $\frac{50}{\cos x°}$ (B) $50 \tan x°$ (C) $50 \cos x°$

   (D) $\frac{\cot x°}{50}$ (E) $\frac{\sin x°}{50}$

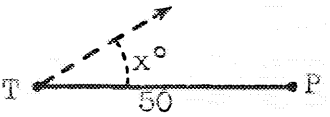


Figure 1

4. The national output of coal is normally x tons per month. If a certain coal mine, from which n tons of coal are obtained each month, is shut down for 1 month, the national output of coal is reduced to what fraction of the normal amount?

   (A) $\frac{x-n}{x}$ (B) $\frac{x}{x+n}$ (C) $\frac{n-1}{n}$

   (D) $\frac{nx-n}{x}$ (E) $\frac{x+n}{x}$

5. In Figure 2, points P, Q, R, and S all lie on a circle. PR and QS intersect at K. If $QK=12$, $RK=6$, and $SK=4$, then $PK=(?)$

   (A) 2 (B) 6 (C) 8 (D) 10 (E) 18

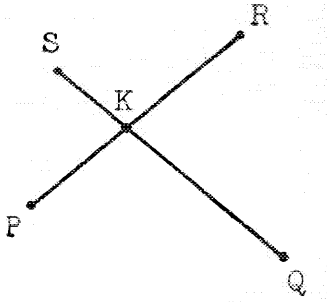


Figure 2

6. If $\log_{10} x = 3 + \log_{10} 4$, $x = (?)$

   (A) 7 (B) 12 (C) 250

   (D) 1004 (E) 4000

PART II—REGULAR EXAMINATION ONLY

USE THIS SPACE FOR FIGURING.

7. If $4+\sqrt{4n}=2n$, $n=(?)$

(A) -2 (B) 1 (C) 2

(D) 4 (E) 1 and 4

8. In Figure 3, the radius of circle O is r and PT is tangent to this circle at point T. How far from T is a point P on the tangent such that the external segment of the line joining O and P is half as long as TP?

(A) $\frac{2r}{3}$ (B) $\frac{4r}{3}$ (C) $2r$

(D) $\frac{2r+2r\sqrt{7}}{3}$ (E) $4r$

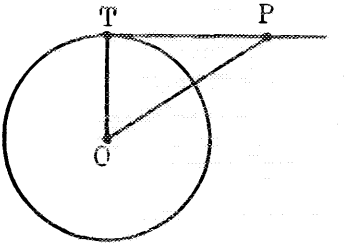


Figure 3

9. If $t=\frac{3}{2}$ is a root of the equation $2t^2-mt+6=0$, $m=(?)$

(A) -1 (B) 1 (C) 4 (D) 5½ (E) 7

10. In Figure 4, $LMNPQ$ is an inscribed pentagon such that arc $PQ=70°$. $\measuredangle L+\measuredangle N=(?)°$

(A) 145 (B) 210 (C) 215

(D) 290 (E) 430

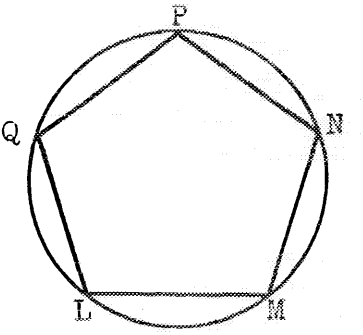


Figure 4

2. English

The entrance examination in English is three hours in length. Regular candidates take the entire examination; validating candidates take the first one and one-half hours of the examination. Questions will test the candidate's vocabulary, spelling, knowledge of grammar and literature, and reading ability. The practice questions below are illustrative of the general nature and difficulty of the examination. One or two other types of questions may be included in addition to, or in place of, those given below. A sample answer sheet and a list of the correct answers for the practice questions follow the description of the West Point Aptitude Test.

VALIDATING EXAMINATION AND PART I—REGULAR EXAMINATION

Directions.—Each question below consists of a group of four words, two of which are approximately *opposite* to each other in meaning. Decide which two words in each group are *most nearly opposite*, and blacken the space beneath the corresponding pair of numbers on the answer sheet; i. e., mark the space between the dotted lines beneath "1–2" if words numbered 1 and 2 are opposite, beneath "2–4" if words 2 and 4 are opposite, beneath "3–4" if words 3 and 4 are opposite, etc. Mark only one set of dotted lines for each answer.

1. 1—tributary 2—aggrieved 3—vincible 4—appeased
2. 1—eminence 2—learning 3—ignominy 4—latitude
3. 1—foreign 2—affluent 3—indigent 4—persuasive

Directions.—Each of these questions consists of four words numbered 1 to 4. In some of the questions there is *one* misspelled word; in some of the questions all the words are spelled correctly. You are to decide which of the four words, if any, is misspelled and blacken the space beneath the corresponding number on the answer sheet. If there is *no* spelling error in a question, blacken the space beneath the "0." No question contains more than one misspelled word.

4. 1—digestion 2—antagonistic 3—paralysis 4—herisy
5. 1—committed 2—embarass 3—pronunciation 4—villain
6. 1—inspirational 2—species 3—irreconcilable 4—miscellaneous

Directions.—In the sentences below, certain portions are underlined and numbered. On the right-hand side of the page are suggested several ways of writing or punctuating each underlined portion. Choose the answer which is *best* for formal writing, and blacken the space beneath the corresponding number on the appropriate line on the answer sheet.

Our staff reported yesterday that they have not yet deciphered the message.
7

7. (1) have not yet deciphered
(2) had not yet deciphered
(3) did not yet decipher

On July 4, 1776, the American colonies declared themselves completely independent from British rule.
8

8. (1) from (2) of

No one was much taken by the applicant's personality, though his credentials indicated that he was pleasant, intelligent, and friendly.
9

9. (1) , though (2) ; though
(3) ; though (4) . Though

Shakespeare is the most universally loved of all poets.
10

10. (1) of all poets
(2) of any poet
(3) of any poets
(4) of any other poets

PART II—REGULAR EXAMINATION ONLY

Directions.—Each incomplete statement below is followed by five suggested completions, only *one* of which is correct. Select the correct completion and blacken the space beneath the corresponding number on the answer sheet.

11. Washington Irving's works are characterized by
1—concern with industrial problems
2—cool impersonality
3—humor and sentimentality
4—bitter satire of the author's rivals
5—championship of feminism

12. The literary form most characteristic of the Romantic Period is
1—lyric poetry
2—drama
3—satire
4—sonnet sequences
5—scientific prose

13. The idea that people without great wealth, noble birth, or exceptional beauty are fit subjects for poetry finds conspicuous expression in
1—Shakespeare's sonnets
2—Pope's *The Rape of the Lock*
3—Dryden's *Absalom and Achitophel*
4—Wordsworth's *Composed upon Westminster Bridge*
5—Gray's *Elegy Written in a Country Churchyard*

Directions.—*One* of the numbered words in each of the following paragraphs spoils the sense or meaning of the paragraph as a whole. Read each paragraph through and decide which *one* of the numbered words spoils the meaning. Then blacken the space beneath the corresponding number on the answer sheet.

14. The limestone region of the Carso has been a scene of excessive 1 activity in cave formation and as such 2 is of greatest indifference 3 to the geologist. In places the earth is absolutely 4 honey-combed with the tortuous 5 galleries 6 and passages characteristic of this type of erosion 7.

15. They were living 1 in a warmer climate in which a diet of beef and fermented liquor was destructive 2; they were forced, therefore, to a generally vegetarian diet 3, and the barren 4 soil, almost 5 unasked 6, gave them all the food 7 they needed.

16. The literary 1 critics 2 of the seventeenth century, especially in France, were fond of representing 3 their political 4 theories graphically 5 by drawing elaborate allegorical 6 maps of the land of poetry 7.

3. United States History

The special examination in United States History (see par. 4b(2), sec. II) will be 90 minutes in length and will consist entirely of questions of the multiple-choice type. The samples below illustrate the kinds of questions which will be asked and indicate the difficulty and the subject-matter coverage of the examination. A section of map questions may also be included. A sample answer sheet and a list of the correct answers for the sample questions follow the description of the West Point Aptitude Test.

Directions.—Each incomplete statement below is followed by five words, phrases, or clauses, *one* of which will complete the statement correctly. Select the correct completion and blacken the space beneath the corresponding number on the appropriate line on the answer sheet.

1. The Granger movement was supported by
1—the great cattlemen of the West who wanted the open grange retained for their herds
2—owners of grain elevators who wished to stimulate the production of wheat
3—people interested in preserving the forests of the United States
4—pioneers who believed in squatters' rights
5—farmers who were conscious of their economic hardships

2. Diplomatic immunity is
   1—the condition of a country well-protected by buffer states
   2—a strong, unassailable alliance between states
   3—police protection granted to the embassies of foreign countries
   4—privileges granted by a country to its diplomats because of the nature of their work
   5—the freedom from arrest and taxation accorded to members of the diplomatic staffs of foreign countries

---

Directions.—Each incomplete statement below is followed by two or more numbered sets of completions. ONE of the 3 completions in each set is FALSE. Find the *false completion* in each set and on the answer sheet blacken the space corresponding to it in number.

However they disagreed on many details, the men who drew up the Constitution of the United States at Philadelphia in 1787 were agreed on certain essentials. The majority wished to create a central government which could

3. 1—support an army strong enough to suppress domestic disorder
   2—make commercial treaties with foreign nations
   3—give financial assistance to private debtors

4. 1—pay off its financial obligations
   2—collect and enforce interstate tariffs
   3—be less directly subject to popular control than were the state governments

After the first World War there was a prolonged agricultural depression in the United States because

5. 1—the fertility of American farms was practically exhausted
   2—the great expansion of land under cultivation during the war resulted in unsalable surpluses when the war markets collapsed
   3—our high protective tariff prevented foreign nations from selling to us, and consequently they were not able to buy goods from us

6. 1—there was a sharp reduction in the demand for hay and grain to feed draft animals
   2—improvements in machines made it possible to produce enormous quantities of agricultural products
   3—foreign producers gained over thirty percent of our domestic market for agricultural products

---

Directions.—Each item in this section is a statement about *one* of the four labor disturbances (lettered A to D) listed below. Select the one to which each statement best applies and blacken the space beneath the corresponding letter on the answer sheet.

(A) Homestead Strike
(B) Pullman Strike
(C) Mining Strike of 1902
(D) Haymarket Affair

7. Was of such great importance that President Theodore Roosevelt intervened and induced a settlement of the matter.

8. Hurt the reputation of the Knights of Labor so much that this organization dissolved not many years later.

9. Culminated in a pitched battle between strikers and Pinkerton detectives hired by the Carnegie Steel Company.

10. Terminated to the advantage of the company because of a federal injunction issued against the labor leaders.

11. Was caused by the hurling of a bomb into the midst of massed strikers.

12. Did not terminate to the advantage of the strikers, principally because the companies involved succeeded in gaining the support of President Cleveland and Attorney General Olney.

13. Ended in a signal victory for the strikers because the dispute was arbitrated in their favor.

14. Resulted in the breaking of the union's power and enabled magnates for over forty years to prevent the organization of labor in the steel industry.

Directions.—Each of the following quotations is typical of *one* of the 5 names or phrases which follow it. Decide which one of the 5 choices is the most likely source of the quotation and blacken the space beneath its number on the appropriate line on the answer sheet.

NOTE.—You are not expected to recall these quotations from memory. It is intended rather that you examine each statement carefully to determine the point of view it summarizes and then from your knowledge of history select the most probable answer.

15. "We think it so much in the public interest to maintain a vigorous judiciary that we encourage the retirement of elderly judges by offering them a life pension at full salary. Why then should we leave the fulfillment of this public policy to chance or make it dependent upon the desire or prejudice of any individual Justice?"
   1—Charles E. Hughes
   2—Herbert Hoover
   3—Franklin Roosevelt
   4—Thomas Dewey
   5—Alfred Landon

16. "It matters not what way the Supreme Court may hereafter decide as to the abstract question of whether slavery may or may not go into a Territory under the Constitution; the people have the lawful means to introduce it or exclude it as they please, for the reason that slavery cannot exist a day or an hour, anywhere, unless it is supported by local police regulations."
   1—Roger B. Taney
   2—John C. Calhoun
   3—William Lloyd Garrison
   4—Jefferson Davis
   5—Stephen A. Douglas

4. West Point Aptitude Test

The West Point Aptitude Test is two and one-half hours in length. The questions below indicate the general nature and difficulty of the test. However, one or two other types of questions may be contained in addition to, or instead of, those given below. A sample answer sheet and a list of the correct answers for the practice questions follow this test.

This section is based on an artificial language. The questions measure the understanding of the organization of a language and the ability to apply its principles with speed and accuracy. Principles used include the formation of words from roots, inflection of verbs for tense, agreement of nouns and adjectives, and inflection for number. The following key and questions illustrate the nature of the section.

KEY

Vocabulary

mesrag	the examination.	pagrez	to be.
poprun	a student.	dinez	to like.
mesrun	an examiner.	cludez	to take.
mesrag	the difficulty.	pol	not.

Verbs are formed by changing the noun ending (*ag* or *un*) to

ez for the infinitive.
as for the present tense.
ej for the past tense.
ip for the future tense.

An adjective is formed from a noun by changing the noun ending (*ag* or *un*) to *ub*.
An adjective agrees with its noun in number. The plural of a noun or adjective is formed by adding *no* to it.
There is *no* translation for the articles.

In questions 1 to 4, inclusive, select the one of the four alternatives which correctly translates the statement. Then on the appropriate line on the answer sheet blacken the space beneath the letter corresponding to that of your choice.

1. The student took the examination.
   (*A*) Poprun cludej mesrag.
   (*B*) Poprez cludav mesrag.
   (*C*) Poprun cludip mesrag.
   (*D*) Poprag cludez mesrag.
2. The examinations are not difficult.
   (*A*) Mesragno pagravno pol nesrub.
   (*B*) Mesrag pagravno pol nesrub.
   (*C*) Mesragno pagravno pol nesrubno.
   (*D*) Mesragno pagrav pol nesrubno.
3. Mesrun mesrip poprunno.
   (*A*) The examiner examines the students.
   (*B*) The examiner will examine the students.
   (*C*) The examiners will examine the student.
   (*D*) The examiner examined the student.
4. Poprunno poprav nesrub mesrag.
   (*A*) The students study the difficult examinations.
   (*B*) The student will study the difficult examination.
   (*C*) The students study the difficult examination.
   (*D*) The student studied the difficult examinations.

In questions 5 and 6 decide which of the four alternatives should be used to complete the sentence and then on the answer sheet blacken the space beneath the corresponding letter.

5. Mesrun.....mesrag.
   (*A*) poprip
   (*B*) popez
   (*C*) nesrip
   (*D*) pagrej
6. Poprunno.....mesrag.
   (*A*) mesrun
   (*B*) cladag
   (*C*) pagrip
   (*D*) dinej

This section of the examination consists of a series of algebraic problems which measure the applicant's ability to perform simple algebraic computations with speed and accuracy. The problems cover the elementary principles of addition, subtraction, multiplication, and division in algebra and require a knowledge of such concepts as factoring, exponents, and evaluation.

For each question decide which of the five possible answers, (A), (B), (C), (D), or (E), is the correct one and then blacken the space beneath the corresponding letter on the answer sheet.

7. If $2x+4y=17$ and $3y-2x=11$, then $y-2x=(?)$ USE THIS SPACE FOR FIGURING.

   (A) $\frac{1}{2}$ (B) 1 (C) 2

   (D) 3 (E) 6

8. $\frac{(7)(8)}{(2)(6)}+\frac{7}{6}=(?)$

   (A) 1 (B) 4 (C) $\frac{14}{3}$

   (D) $\frac{49}{9}$ (E) 8

USE THIS SPACE FOR FIGURING.

9. If $h=k=p=5$, $21h^2-17k^2+6p^2=(?)$

(A) 50 (B) 100 (C) 250
(D) 500 (E) 1100

10. If $t=-4$ and $n=5$, then
$3(n-t)-8(t-n)=(?)$
(A) -45 (B) -5 (C) 11 (D) 45 (E) 99

The following section measures the candidate's comprehension of words and his skill in dealing with word and thought relationships.

Directions.—Each of these questions consists of two words which have a certain relationship to each other followed by five numbered pairs of related words. Select the numbered pair of words which are related to each other in the *same* way as the original pair of words are related to each other. Then, on the answer sheet, blacken the space beneath the number corresponding to the number of the pair you have selected.

11. SMILE : LAUGH :: 1—grin : whimper 2—grin : wail 3—whimper : wail 4—whimper : sad 5—mouth : face

12. HELMSMAN : SHIP :: 1—leader : victory 2—army : victory 3—enemy : battle 4—conscience : conduct 5—patriotism : nation

13. DINOSAUR : DRAGON :: 1—reptile : mammal 2—real : fabulous 3—prehistoric : medieval 4—kangaroo : antelope 5—wisdom : folly

Directions.—In each of the sentences below there is a blank space indicating that a word has been omitted. Beneath the sentence are five numbered words; from these five words you are to choose the one word which, when inserted in the blank space, *best* fits in with the meaning of the sentence as a whole. Blacken the space beneath the number on the answer sheet which corresponds to the number of the word you have chosen.

14. Although the Alps have often been described as a great _____, they have seldom protected the regions to the south from invasion.
1—phenomenon 2—barrier 3—thoroughfare 4—mystery 5—threat

15. The urban population of the United States has slowly _____, the urban decline in births being more than balanced by migration from the rural areas.
1—decreased 2—consolidated 3—disintegrated 4—increased 5—assimilated

16. Studies of children have shown that democratically organized groups do better and more careful work than groups under the supposedly _____ methods of authoritarianism.
1—dictatorial 2—obsolete 3—efficient 4—cooperative 5—haphazard

---

The following section is intended to identify the student who can apply basic knowledge in reasoning out solutions to new problems, rather than the student who has simply memorized formulas and processes. It is assumed that the applicant is familiar with the use of algebraic symbols and the elements of geometry.

For each question decide which of the five possible answers, (A), (B), (C), (D), or (E), is the correct one and then blacken the space beneath the corresponding letter on the answer sheet.

USE THIS SPACE FOR FIGURING.

17. A truck is licensed to carry between 7 and 8 tons. What is the maximum number of bushel bags of salt it may carry, if one bushel weighs 70 pounds and one ton equals 2,000 pounds?

(A) 200 (B) 228 (C) 229 (D) 250 (E) 560

18. The reading of a certain instrument is the average of 6 successive positions of the indicator. If variations on either side of 24 are $+.3$, $-.7$, $+.2$, $-.5$, $+.2$, and $-.4$, what is the reading of the instrument?

(A) -9 (B) 23.1 (C) 23.85 (D) 24.15 (E) 24.9

19. A new machine part requires 25% less material than the old part and weighs one-half as much. The weight per cubic foot of the new part is how many times that of the old?

(A) $\frac{1}{8}$ (B) $\frac{3}{8}$ (C) $\frac{2}{3}$ (D) $\frac{3}{2}$ (E) 2

20. A rectangular sheet of paper has an area of 24 square inches. If 4 holes, each having a radius of ½ inch, are punched in this sheet of paper, what percent of the area of the rectangle has been punched out?

(A) $\frac{\pi}{2400}$ (B) $\frac{24-\pi}{2400}$ (C) $\frac{25\pi}{6}$

(D) $\frac{50(6-\pi)}{3}$ (E) $\frac{25(24-\pi)}{6}$

5. Sample Answer Sheet

Answers to the questions in all examinations will be indicated on a *separate answer sheet*, similar to the one below. No credit will be allowed for anything written in the test booklets. The answers to several of the questions are indicated in the appropriate places on this sample answer sheet. For a list of the correct answers to all questions, see page 71.

Mathematics Examination

	A	B	C	D	E
1.					■
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

English Examination

	1-2	1-3	1-4	2-3	2-4	3-4	
1.					■		
2.							
3.							
	1	2	3	4	0		
4.				■			
5.							
6.							
7.		■					
8.							
9.							
10.							
11.			■				
12.							
13.							
14.			■				
15.							
16.							

United States History Examination

	1	2	3	4	5
1.					■
2.					
3.			■		
4.					
5.					
6.					
7.			■		
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.			■		
16.					

West Point Aptitude Test

	A	B	C	D	E
1.	■				
2.					
3.					
4.					
5.					
6.					
7.				■	
8.					
9.					
10.					
11.			■		
12.					
13.					
14.					
15.					
16.					
17.		■			
18.					
19.					
20.					

KEY TO ANSWERS

Mathematics Examination

1. E
2. E
3. A
4. A
5. C
6. E
7. D
8. B
9. E
10. C

English Examination

1. 2–4
2. 1–3
3. 2–3
4. 4
5. 2
6. 0
7. 2
8. 2
9. 1
10. 1
11. 3

English Examination—Con.

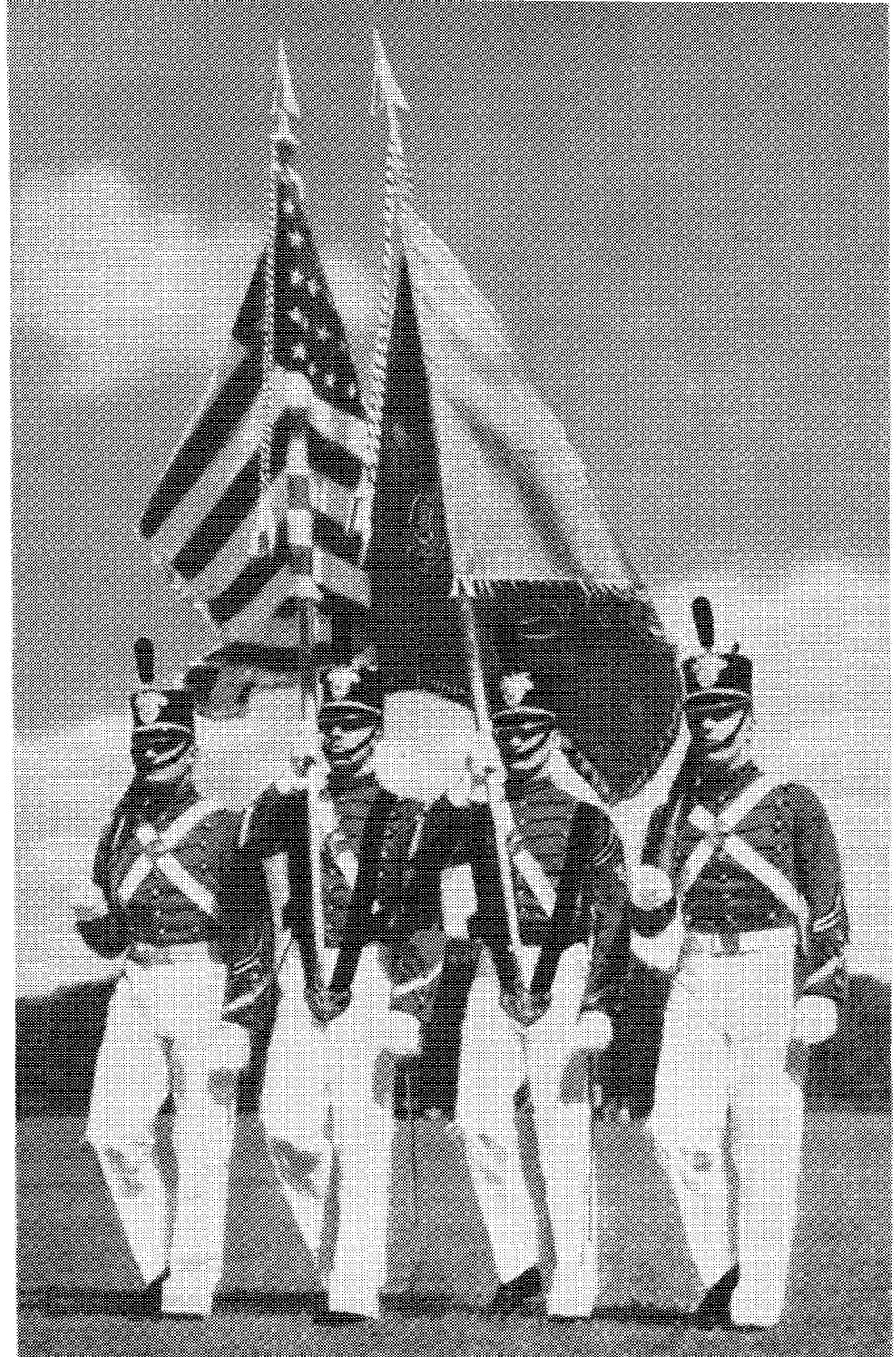
12. 1
13. 5
14. 3
15. 4
16. 4

United States History Examination

1. 5
2. 5
3. 3
4. 2
5. 1
6. 3
7. C
8. D
9. A
10. B
11. D
12. B
13. C
14. A
15. 3
16. 5

West Point Aptitude Test

1. A
2. D
3. B
4. C
5. A
6. D
7. D
8. B
9. C
10. E
11. 3
12. 4
13. 2
14. 2
15. 4
16. 3
17. B
18. C
19. C
20. C



ALPHABETICAL INDEX TO THE 1949–50 CATALOG OF INFORMATION

	Page
Academic Terms	53
Activities, Extracurricular	72
Administration and Organization	48
Admissions	8
Age Requirements	8
Allowances and Pay of Cadets	70
Alternate Candidates	16
American Republics and Canada	13
Appointments	8
Aptitude for the Service	62
Aptitude Tests:	
Physical	27
Mental (West Point Aptitude Test)	21
Association of Graduates	73
Athletics	72
Awards	63
Board of Visitors	48
Cadet Corps:	
Conduct	62
Composition	10
Deficiency—Academic Subjects and Conduct	53
Pay and Allowances	70
Uniforms and Supplies	70
Calendar for 1949–50	6
Certificates, Educational	20
Character Requirement	9
Chemistry, Department of—Outline of Course	59
Christmas Leave	67
Citizenship Requirement	9, 13
College Entrance Examination Board Tests	23
Competitive Appointments	14
Competitors, Qualified	16
Congressional Appointments	10
Congressional Medal of Honor Appointments	11
Course of Studies and Program of Instruction	53
Credits, Academic (Required and Optional)	23
Dean of Academic Board	49
Debate Council	72
Deficient Cadets—Academic Work or Conduct	53
Definitions and Detail Requirements (Educational)	24
Degree Conferred by USMA	63
Departments of Instruction (Professors)	59
Deposit Upon Entrance	70
Disapproval of Candidates' Certificates	34
Distinguished Cadets	66
District of Columbia Appointments	10
Educational Qualifications for Admission	17
Electricity, Department of—Outline of Course	60
Engagement to Serve	9
English, Department of—Outline of Course	76
English Requirements	26, 59

Examinations:
Mental: Page
Regular 18
United States History 21
Validating 22
West Point Aptitude 21
Term-end 53
Physical Aptitude 27
Physical (Medical)—Regular and Preliminary 29
Extracurricular Activities 71

Filipino Cadets 13, 33
First Class—Schedule of Instruction 58
Foreign Cadets 13
Foreign Languages, Department of—Outline of Course 59
Fourth Class, Schedule of Instruction 55

Graduates, Association of 73
Graduation 66

Height Requirements 33
History of USMA 1
History Requirements 27
Honor Military School Appointments 15

Instruction—Program for Academic Year 53
Departments of, and Detailed Description of Work:
Electricity 60
English 59
Foreign Languages 59
Law 60
Mathematics 59
Mechanics 59
Military Art and Engineering 60
Military Hygiene 60
Military Topography and Graphics 59
Ordnance 60
Physics and Chemistry 59
Social Sciences 60
Tactics 61

June Entrance Examination 19

Law, Department of—Outline of Course 60
Leadership Training (Military Psychology) 62
Leaves of Absence, Suspension of Duties 67
Lectures 62
Library 68

Marriage—Not Permitted for Cadets 9
Mathematics, Department of—Outline of Course 75
Mathematics Requirements 22, 59
Mechanics, Department of—Outline of Course 59
Methods of Qualifying Mentally 18
Mileage Allowance 70
Military Art and Engineering, Department of—Outline of Course 60
Military Hygiene, Department of—Outline of Course 60
Military Instruction—Summer 53
Military Psychology and Leadership (Tactics) 62
Military Topography and Graphics, Department of—Outline of Course 59
Mission of the Military Academy 6
Museum 68

National Guard Appointments 14
Nominations 8
Noncompetitive Appointments 10

	Page
Oath of Allegiance	9
Officers, Headquarters and Staff	48
Ordnance, Department of—Outline of Course	60
Organization and Administration of the Military Academy	48
Panama Canal Zone—Appointments	11
Pay and Allowances of Cadets	70
Physical Aptitude Entrance Examination	27
Physical Conditional for Candidates	42
Physical Education	61
Physical (Medical) Examinations:	
Periodic, of Cadets	63
Preliminary for Candidates	29
Regular Entrance	29
Requirements	29
Physics and Chemistry, Department of—Outline of Course	59
Preparatory School, USMA	45
Presidential Appointments	14
Prizes, Academic (Awards)	63
Professors, Departments of Instruction	49
Program of Instruction and Courses of Study	53
Promotion after Graduation	66
Psychology (Military) and Leadership	62
Puerto Rico, Appointments	10
Qualified Alternates and Qualified Competitors	16, 22
Qualifying for Admission	18
Regular Army Appointments	14
Religious Activities	73
Requirements (General) for Admission	8
Required Credits for Admission	18
Schedule of Instruction	20, 55
Second Class, Schedule of Instruction	57
Section 2, Appointments	7
Service in Armed Forces (Engagement to Serve)	9
Social Life and Activities	71
Social Sciences, Department of—Outline of Course	60
Sons of Deceased Veterans Appointments	15
Sources of Admission	8
Staff, USMA	48
Strength of the Corps of Cadets, Authorized by Law	10
Summer Period—Practical Military Instruction and Class Leaves	53
Superintendent, USMA	53
Tactics, Department of—Outline of Course	61
Term-end Examinations	53
Territories (Alaska and Hawaii) Appointments	10
Third Class, Schedule of Instruction	56
Training Hints for Candidates	43
Uniforms and Supplies	70
Vice Presidential Appointments	11