

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
CHICAGO 54, ILLINOIS.

RECOMMENDED COLLEGE PREPARATION FOR STUDENTS PLANNING
TO ENTER THE NATIONAL PARK SERVICE THROUGH THE
PARK RANGER CIVIL SERVICE EXAMINATION

The primary functions of the National Park Service are to preserve the areas entrusted to its care and to make them available for public use and enjoyment in such manner as will leave them unimpaired for continued use by future generations. These functions constitute a very important phase of land management in areas of the highest natural or historical values. To protect and administer these areas and values most effectively, one should have a fundamental knowledge of the things with which such protection and administration deal--i.e., flora, fauna, natural phenomena and American history.

To deal most effectively with the use and enjoyment of the areas by the public, one must be capable of handling public contacts advantageously. For this purpose a knowledge of the things which the park visitors come to see and enjoy facilitates and improves public relations. A knowledge of the natural sciences therefore serves in land use management, protection, and in interpreting natural phenomena to park visitors. A knowledge of American history is also essential to the administration, interpretation, and protection of historical areas.

General Qualifications. The administrative officials in charge of areas within the National Park System hold positions of public trust involving the protection of natural and historical values. For the discharge of their duties they must possess qualities of honesty, courage, tactfulness, and a high degree of administrative ability. In the selection of men to fill the subordinate positions, a high standard of qualifications is required in order that they may be qualified to succeed through promotion to higher positions of responsibility. The higher administrative and technical positions are filled by the promotion of those who have demonstrated their capacity through service in lower positions.

Attached hereto is a copy of the statement of qualifications for entrance in the park ranger examination which was issued at the time of the last park ranger examination. The base entrance salary for the park ranger position is \$2,040 per annum.

Education. College education is not a requirement for entrance to the U. S. Civil Service Examination for park ranger. However, in order to be properly qualified for eventual advancement to high administrative positions, the park official should have a well-rounded education. This would include a thorough foundation in English to enable him to speak and write effectively, and a substantial background in the broad cultural subjects of literature, history, civics, economics, and psychology. In addition, courses in algebra, plane geometry, trigonometry, geometrical drawing, inorganic chemistry, physics, and one foreign

How May the Recommended Training be Obtained? Most colleges require students to register for a major subject if a degree is to be obtained. No American college or university has to date established a degree in park administration or recreational management, so that students aiming to enter these fields will as a rule find it necessary to adapt their curricula to those of established majors in order to obtain a college degree.

A number of forestry colleges have already established courses in park management for the express purpose of preparing students who wish to enter the park field. The degree is usually granted in science or in forestry. One college, however, is now offering a degree of Bachelor of Science in Forest Recreation and Game Management. While it is not necessary that men entering the ranger organization be professional foresters, except for the few positions requiring such technical training, several of the outstanding forestry colleges that have been endeavoring to prepare men for park work appear to come closest to meeting the needs outlined above. Some of these schools, however, still require all students majoring in forestry to include certain subjects which are not essential for general park work, such as forest mensuration, lumbering, wood technology, and wood utilization. In place of these the aspirant to park work could profitably substitute recreational management, wildlife management, and appreciation of landscape values, if permitted to do so.

Training for park work is also possible under a major in biology, landscape architecture, or in public administration, provided the recommended courses which are not ordinarily included in such curricula are obtainable as electives in other colleges or departments of the same institution.

The deans of a number of colleges, while recognizing the need for special training for those planning to enter park work believe that the student should conform to the established undergraduate professional curriculum in order to have professional training and standing, and then, in a fifth year of study, elect the additional subjects that are needed to complete the preparation for park work. This of course requires a greater expenditure of time and money but does have the added advantage of preparing a man both for a recognized professional field as well as for park management, so that he will be equipped to enter either field.

Training in Specialized Fields. For the student who wishes to specialize in some professional field preparatory to entering the National Park Service as a technician, for example as an engineer, landscape architect, architect, forester, biologist, naturalist, historian, geologist, archeologist, personnel officer, or finance officer, but also wishes to have a general knowledge of the field of park work, it is recommended that so far as possible he select his electives from the list of subjects suggested above for the prospective park ranger. As in the past, a goodly number of such professional men will undoubtedly continue to enter the National Park Service through the park ranger examination. Moreover, in many instances men trained in the professions referred to will be sought from the park ranger eligible list to fill positions where their special training will be a valuable asset.

Opportunities for Employment in National Park Service. The number of new rangers who can be selected from the Civil Service eligible list to fill vacancies in the National Park Service during a normal year is comparatively small. There are, however, opportunities for men prepared for park and recreational work in other federal, state, county, and metropolitan organizations engaged in land management.

During the summer months the ranger organizations of the parks and monuments are augmented by the appointment of temporary rangers, ranger-naturalists and fire guards. Many of these appointees are selected from local residents or those who have filled similar positions efficiently in previous years. However, it is the intention of the National Park Service to cooperate with the institutions which are training students for park work by reserving a reasonable number of such positions to be filled by promising students who are highly recommended by their schools for their personality, ability, and interest in park work.

Military Preference to Ex-service Men. The U. S. Civil Service regulations prescribe that eligibles with honorable discharges from the military or naval service shall be given preference in selections to fill permanent positions. So far as practicable, similar preference will be given to ex-service men in selections for seasonal and temporary positions.

July 27, 1944.

0-256-06 Examinations- Rangers.

DESCRIPTION OF RECOMMENDED SUBJECTS

(Figures in parentheses indicate number of semesters)

1. English. Rhetoric and composition; elements of effective speech and writing; vocabulary improvement; sentence structure and diction; English composition, oral and written, with frequent exercises in letter and report writing, and writing for publication. Outside reading of selected examples of outstanding American and English literature for vocational and cultural improvement. Lectures, recitations, and assignments. (2)
2. Botany. A study of plant forms and functions of plant parts; origin and development of plant life from simple forms to the highly developed flowering plants; morphology of roots, stems, leaves, flowers, fruits and seeds; physiology of life processes of plants; taxonomy and nomenclature. Lectures, recitations and laboratory. (2)
3. Zoology. A study of aquatic and terrestrial animal forms, their origin, structures, and functions of structures; characteristics of animal life and relationships within the animal kingdom; taxonomy and nomenclature. Lectures, recitations and laboratory. (2)
4. Inorganic Chemistry. Properties and identification of the chemical elements; chemical symbols and formulae; physical properties, chemical properties and chemical composition of inorganic substances, and how they affect the use of those substances; chemical changes in everyday life; chemical reactions; elements of qualitative and quantitative chemical analysis. Lectures, recitations and laboratory. (2)
- *5. First Aid and Hygiene. Instruction and practice in first aid treatment of cuts, bruises, burns, sprains, fractures, and other common injuries and ailments; principles and practices of health promotion, individual and physiological hygiene; disease prevention and control; principles of sanitation and public health. Lectures, recitations and demonstrations. (1)
6. Trigonometry. The theory and solution of triangles and the practical application of such solutions. Lectures and recitations. (1)
7. Drafting and Lettering. Principles and practice of good draftsmanship, including lettering; preparation of working drawings, building plans and maps. Drafting room and outside assignments. (1)
8. Physics. Basic working principles of mechanics, sound, heat, light, electricity, magnetism and radio transmission; physical measurements pertaining thereto. Lectures, recitations and laboratory. (1)
9. Physical Geography and Geology. An analytical review of the surface features of the earth, with major emphasis upon the United States and its possessions; an outline of the history of the earth and significant events in the history of life; processes of nature by which the earth's surface has been built

*18. Fire Control. Principles of fire control on forest, brush and grass fires; fire prevention; fire detection; communication; transportation; fire fighting equipment; fire weather stations and forecasts; training and organization of fire control forces; fire suppression methods, techniques and tactics; establishing fire camps; subsistence of fire fighters; preparation of fire control plans, cooperative agreements, fire reports and fire atlases; recent developments in field of forest fire control. Lectures, recitations and field work. (1)

*19. Soil Conservation. Origin, development, characteristics, and classification of the major soil types, their physical and chemical properties; soil moisture, heat, and air relationships; relation to vegetation; plant foods and soil fertility; soil analysis and pH determination. Soil erosion; its causes, types and methods of control. Lectures, recitations, laboratory and field work. (1)

20. Plant Materials and Planting. Identification and use of plant materials; preparation of planting plans; naturalistic landscape plantings; foundation plantings; forest plantings. Lectures, recitations, drafting room and field work. (1)

*21. Protection Improvements. Principles and practices in the construction of forest protection improvements, including truck trails, fire trails, lookout structures, telephone and radio communication systems, protection personnel quarters, firebreaks and fire hazard reduction. Lectures, recitations and field work. (1)

22. Conservation and Land Use Planning. A survey of the nation's natural resources of land, water, forest, range, minerals and wildlife, and their economic and social importance; public and private ownership of resources; importance and methods of conserving them; national programs and policies for their protection and use; principles of planning for wise use of resources; single and multiple land use. Lectures and field trips. (1)

23. Public Administration. Principles of public service in federal, state and local governments; administrative functions, techniques and procedures; public relations; interagency cooperation; personnel and fiscal control; budgetary procedure and government accounting; procurement and contracts; organization and management of personnel; job analyses; planning and organization of work; maintenance of files and records. Lectures and recitations. (2)

*24. Wildlife Management. Life histories, habits, distribution, habitats, and identification of the more common native mammals, fish, birds, and reptiles; protection and restoration of vanishing species; reintroductions; wildlife censuses; determination of range carrying capacities; over-grazing, overbrowsing, and overpopulation problems; principles of fish culture and stocking; predators and predator control policies; habitat protection, improvement and maintenance. Lectures, recitations and field work. (2)

25. Public Park and Recreational Area Administration. Importance, aspects and requirements of land for recreational use; types of public park and recreational areas, agencies administering them, laws and policies applied in their

administration; objectives in the recreational use of land; resources ~~involved~~; coordination with other land uses; classes of users; effects of human use on recreational areas and methods of preventing damage from such use; principles of handling recreational area users; regulation of use. Lectures, recitations and field trips. (1)

*26. Park Structures and Facilities. Engineering and architectural principles appropriate to park and recreational areas; elements of design, construction and maintenance of park buildings, roads, bridges, trails, campground and picnic ground facilities, parking areas, pavements, sewage disposal and water supply systems, walks, walls, steps, signs, and markers. Lectures, recitations, assignments, drafting room and field work. (1)

27. Law and Legal Procedure. Fundamental principles of law and legal processes; organization and functions of the judicial system of the United States; civil and criminal codes; power of court and police officers; law enforcement technique; constitutional rights of citizens; contracts. Lectures and recitations. (1)

* Summer Camp. Attendance at a summer camp, if required under the major subject, at some institutions may provide up to 16 credit hours of required work. It is highly desirable that opportunity be provided for field training and practice in subjects marked with an asterisk (*) in the description of the courses. A part of such field work can be accomplished at the summer camp.

Fifth Year. If the requirements under an established major subject are such that it is not possible to include in a four year curriculum all of the subjects recommended for preparation in park work, a fifth year of study is advisable. The fifth year curriculum would then include, in addition to the required major subjects, those recommended subjects that were omitted in the undergraduate course, and possibly one or more elective subjects or advanced studies in the field of park and recreational work.

Electives. There is presented below a list of suggested elective and advanced subjects from which students may wish to select additional studies in the undergraduate or graduate years in order to broaden further their preparation for park work:

American arts and crafts	Mammalogy
American history	Nature guiding
Anthropology	Ornithology
Arboriculture	Photography
Archeology	Political science
Education	Sociology
Forest mensuration	Wood technology

Advanced studies in:	Ecology	Park planning and development
	Forest protection	Public administration
	Park administration	Recreational use of wild lands
	Park improvements	Wildlife management
	Park maintenance	

QUALIFICATIONS FOR ENTRANCE IN PARK
RANGER EXAMINATION HELD IN MAY 1937

Applicants must possess the following qualifications:

1. They must be citizens of the United States.

2. Education and Experience:

They must show that they have had at least 30 months of responsible field experience of a progressive and technical character in park or forest work, involving such activities as fire and insect control, protection of wild-life and scenic or historic features, which experience must have included at least 6 months of actual employment as a foreman or employment in a similar position involving the supervision of at least three or four men; provided, that the successful completion of each year of study in a college or university of recognized standing in work prerequisite for a degree in forestry, biology, archeology, geology, history, landscape architecture, or engineering, will be accepted in lieu of 12 months of the prescribed experience up to a total of 24 months, and that applicants who substitute 2 years of study in the above majors for the prescribed experience will not be required to show experience as foreman; and, provided further, that in any event at least 6 months of the required experience must be shown.

At least 1 year of the required experience or education must have been acquired within 5 years next preceding the date of the close of the receipt of the applications.

Seasonal experience: Applicants who show that they have served at least 2 seasons of at least 2½ months each as ranger or guard in a national park, national monument, or national forest as described above, will not be required to show the 6 months' experience as foreman.

Nonqualifying experience: No credit will be given for (a) experience acquired before the applicant reached the age of 18 years; (b) forestry experience such as lumbering, cruising, scaling, etc., or other types of forestry work not directly related to park activities; (c) routine woods or ordinary farm or plantation work; (d) rodman, chainman, laborer, etc., on survey work.

3. Age:

They must have reached their twenty-first but not their fortieth birthday on the date of the close of receipt of applications. These age limits do not apply to persons granted preference because of military or naval service, except that such applicants must not have reached the retirement age.

(over)

4. Physical Ability:

Applicants must be in sound physical condition and good health, able-bodied and capable of enduring hardships and performing severe labor under trying conditions. The Commission will reject the applications of persons whose height and weight are grossly disproportionate, other measurements being considered; also the applications of persons who have flat foot, hernia, organic heart disease, or other serious physical defects which, in the opinion of the Commission would render them unfit to perform the duties of the position. Vision, without glasses, must be at least 20/40, both eyes combined, with at least 20/50 in the weaker eye.

Height and weight: Applicants must measure at least 5 feet 7 inches in height without shoes or boots, and weigh at least 145 pounds in ordinary clothing without overcoat or hat. The height and weight requirements will be waived for persons entitled to military preference.

Invalids and consumptives seeking light out-of-door employment are not qualified and should not apply.

5. Duties:

Under general supervision, to be in responsible charge of a ranger district in a national park or monument, or of specific units of work in a ranger district, or to act as assistant to a park ranger in responsible charge. Such duties involve protection of the forests from fires; fire prevention and insect control; protection and study of scenic features, flora, and wild animal life of the park or monument; planting of fish; giving reliable and authentic information to, and the protection of, the public visiting the park or monument; preservation of law and order; prevention of accidents; registration of visitors and issuance of automobile permits. These duties require men of strong physique, who must fight fire in summer and patrol the parks through heavy snow in winter.