



Sanitarian Registration Examination Overview

State Board of Sanitarian Registration
77 South High Street, 16th Floor
Columbus, Ohio 43215-6108
E-mail: stephanie.youst@exchange.state.oh.us
Web Address: <http://sanitarian.ohio.gov>

Section 4736.08 of the Ohio Revised Code requires applicants for registered sanitarian to pass an examination conducted by the State Board of Sanitarian Registration. **There is no examination requirement for registration as a sanitarian-in-training.**

The Board administers the Professional Examination Service (PES) Environmental Health Proficiency Examination, a nationally based examination, purchased by contract from PES, a non-profit testing organization located in New York, New York.

The State Board of Sanitarian Registration does **not** offer the National Environmental Health Association/Registered Environmental Health Specialist (NEHA/REHS) examination; however, the Board will accept the examination results as passing Ohio's standard if an applicant presents that they have taken the NEHA/REHS examination, in a manner acceptable to the Board, and passed at Ohio's standard of 70%.

Eligibility

Applicants for examination must either be registered sanitarians-in-training or approved to sit for the examination by the State Board of Sanitarian Registration through submission of an application for registered sanitarian.

The Board administers the examination three times a year, during the months of March, July, and October. **The Board must receive the proper application and fee no later than 35 days prior to the scheduled examination date.** The examination fee is non-refundable and non-transferable.

Examination candidates receive written confirmation of eligibility to sit for the examination approximately three weeks before the examination. The confirmation letter will include an admittance card with an identification number. This card and photo identification, such as a driver's license or state issued identification card, must be presented for admittance to the examination. The identification number is used to code the answer sheet.

Passing Point and Results

The passing standard for the examination is set at a scaled score of 70%. In the scaled scoring process, the minimum raw score (number of correctly answered questions) required to equal 70% may be statistically adjusted. For example, if the test form is slightly more difficult than another test form, then the minimum raw score required to pass will be slightly lower. Scaled scoring assures that the 70% passing standard represents the same level of competence regardless of which form of the test a candidate takes.

Candidates will receive a summary of their performance in each of the subject areas. A candidate who fails to meet the 70% passing standard on the examination may be re-examined on the prescribed examination dates upon resubmission of the examination form and appropriate fee.

Content

The PES examination is a nationally administered examination consisting of 250 questions. All questions on the exam are written in multiple-choice format. Candidates will have four hours to complete the exam. The time will be split into two 2-hour sessions with a 45-minute break between sessions. The exams typically start at 10:00 am and finish at approximately 3:15 pm.

The PES Examination is based upon the following content areas. Next to each subject heading is the approximate percentage of questions in that content area:

Domains of Examination Knowledge/Skill Areas

Domain 1. Food Protection 14%

1. Epidemiology
2. Legal Aspects
3. Microbiological, Physical and Chemical Agents
4. Plan Review
5. Protection/Sanitation
6. Risk Assessment, Management and Communication
7. Sampling and Testing
8. Toxicology

Domain 2. Water and Waste Water 21%

1. Drinking Water
2. Epidemiology
3. Ground Water
4. Land Use
5. Legal Aspects
6. Microbiological, Physical and Chemical Agents
7. Plan Review
8. Risk Assessment, Management and Communication
9. Sampling and Testing
10. Surface Water
11. Toxicology
12. Waste Water

Domain 3. Air Quality 5%

1. Ambient Air
2. Epidemiology
3. Indoor Air
4. Legal Aspects
5. Microbiological, Physical and Chemical Agents
6. Pollution Control Technology
7. Risk Assessment, Management and Communication
8. Sampling and Testing
9. Toxicology

Domain 4. Vector and Pest Control 7%

1. Epidemiology
2. Legal Aspects
3. Microbiological, Physical and Chemical Agents
4. Pesticides (including application)
5. Risk Assessment, Management and Communication
6. Sampling and Testing
7. Sanitation and Control
8. Toxicology

Domain 5. Hazardous Materials Management 7%

1. Emergency Response
2. Epidemiology
3. Handling and Storage
4. Legal Aspects
5. Processing
6. Risk Assessment, Management and Communication
7. Sampling and Testing
8. Toxicology
9. Transportation

Domain 6. Waste Management 7%

1. Biomedical Waste
2. Epidemiology
3. Hazardous Waste
4. Legal Aspects
5. Mixed Waste
6. Reduction
7. Resource Recovery
8. Risk Assessment, Management and Communication
9. Sampling and Testing
10. Soil and Land Use
11. Solid Waste
12. Toxicology
13. Transportation

Domain 7. Radiation 4.5%

1. Electromagnetic Field Radiation
2. Epidemiology
3. Ionizing Radiation
4. Legal Aspects
5. Non-Ionizing Radiation
6. Risk Assessment, Management and Communication
7. Safety and Protection
8. Sampling and Testing
9. Toxicology

Domain 8. Recreation 3%

1. Camping Areas
2. Epidemiology
3. Injury Prevention and Control
4. Land Use
5. Legal Aspects
6. Microbiological Physical and Chemical Agents
7. Natural Bathing Areas
8. Plan Review
9. Playgrounds
10. Pools, Spas and Hot-tubs
11. Risk Assessment, Management and Communication
12. Sampling and Testing
13. Toxicology

Domain 9. Housing and Institutions 3%

1. Epidemiology
2. Infection Control
3. Injury Prevention and Control
4. Legal Aspects
5. Plan Review
6. Risk Assessment, Management and Communication
7. Sanitation
8. Toxicology

Domain 10. Occupational Health and Safety 5%

1. Epidemiology
2. Injury Prevention and Control
3. Legal Aspects
4. Physical Agents
5. Risk Assessment, management and Communication
6. Sampling and Testing
7. Toxicology

Domain 11. General Environmental Health and Scientific Concepts 16%

1. Basic Sciences
2. Epidemiology
3. Injury Prevention and Control
4. Microbiology
5. Statistics
6. Toxicology

Domain 12. Program Planning and Legal Aspects 7.5%

1. Communication
2. Data Management
3. Enforcement and Investigative Techniques
4. Government Organization
5. Risk Assessment and Management

Comprehensive References

1. Salvato, Joseph. *Environmental Engineering and Sanitation*, (ISBN 047141837). John Wiley Publishing, 1 Wiley Drive, Somerset, NJ 08873 (732) 469-4400 or www.wiley.com. 5th Ed. 3/03 - \$240.00.
2. Morgan, Monroe T. *Environmental Health*, available through NEHA, (303) 756-9090 Reference #545 \$46.95.
3. Koren, Herman and Bisesi, Michael, *Handbook of Environmental Health and Safety*, Lewis Publication, Boca Raton, FL 33431, 1-800-272-7737 3rd Ed. 1993 - \$99.95.
4. Blumenthal, D.S. *Introduction to Environmental Health*, (ISBN 082613901-9), 2nd Ed. 1995, Springer Publishing, Inc., 536 Broadway, New York, NY 10012, (212) 431-4370 \$43.95.
5. *Applied Foodservice Sanitation: A Foundation Textbook*. 4th Ed. John Wiley Publishing, 1 Wiley Drive Somerset NJ 08873 (732) 469-4400 in cooperation with the Educational Foundation of the National Restaurant Association, 1992.

Additional References Used to Validate Examination

1. Benenson A., *Control of Communicable Diseases*, 1995
2. Colvin T.S., et al, *Applying Pesticides*, 3rd Edition, American Association Of. Vocational Materials, Athens, Georgia, 1988.
3. Ehlers and Steele, *Municipal and Rural Sanitation*, 1964
4. *FDA Food Code*, <http://vm.cfsan.fda.gov/~dms/foodcode.html>
5. Freedman, Ben *Sanitarians Handbook* 4th Ed., 1977
6. Gammage R., *Indoor Air and Human Health*, CRC PR Inc., 1996
7. Godish, T. *Air Quality*, 4th Edition, 2003
8. Hanlon, J. & Pickett, G. *Public Health Administration and Practice* 8th Ed., 1984
9. Heymann, *Control of Communicable Diseases Manual*, American Public Health Association, 2004
10. Hoover, M., *Soil Science Facts, Septic Tanks Systems*
11. Hui, Y., et al, *Foodborne Disease Handbook, Disease Caused by Bacteria*, 1994
12. Jensen, M., et al, *Microbiology for the Health Sciences*, 4th Ed. Prentice Hall, 1996
13. Kubasek, N., et al, *Environmental Law*, 1994
14. Lave, L. B., *Toxic Chemicals, Health and the Environment*, John Hopkins University Press, 1987
15. Levinson, W. & Sawetz, E., *Medical Microbiology & Immunology: Examination & Board Review* 2nd Edition
16. Lilienfield, A., *Foundations of Epidemiology*, Oxford University Press, 1994
17. Luneburg, W., *the Legal Context of Environmental Protection in the United States*
18. McSwane, D., et al, *Essentials of Food Safety and Sanitation*, 3rd Ed., 2002
19. Mancl, K. & Moore., J., *Septic Tank Maintenance*
20. Miller D.W, *Waste Disposal Effects on Groundwater*, 1980
21. Moeller, D., *Environmental Health*, Harvard University Press, 1992
22. Montgomery J., *Water Treatment Principles and Design*, 1985
23. Nadakavukaren, A., *Our Global Environment, A Health Perspective* 5th Ed. Waveland Pr. Inc., 2000
24. OSHA – www.osha.gov/SLTC/personalprotectiveequipment
25. Ottoboni M., *The Dose Makes the Poison*, 2nd Ed., John Wiley & Sons, Inc., 1997

26. Pelczar, M., et al, *Microbiology Concepts and Applications*, 1993
27. Philip RB. *Environmental Hazards & Human Health*, 1995
28. Speight, J.G., et al, *J. G. Environmental Technology Handbook* Taylor and Francis Publishing, 1996
29. USEPA Office of Water, National Primary Drinking Water Regulations
30. USEPA State of the Art of Small Water Treatment Systems
31. USEPA Design Manual, Onsite Wastewater Treatment and Disposal Systems
32. US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, *A Primer on Health Risk Communication Principles and Practices*
33. US Department of Homeland Security, National Incident Command System
34. Vincoli, J., *Basic Guide to Industrial Hygiene*, 1995
35. Ware GW. *The Pesticide Book*. 3rd ed. Fresno, CA: Thomson Publications, 1989
36. White G.W., *Handbook of Chlorination*, 2nd Ed., 1986
37. Wilson, M. C., et al, *Fundamentals of Applied Entomology*, Waveland Press, 1984
38. Yassi A., et al, *Basic Environmental Health*, Oxford University Press, 2001

The State Library of Ohio

The following references were donated to the State Library of Ohio by the State Board of Sanitarian Registration and are available at the State Library, 274 E. 1st Avenue, Columbus, Ohio 43201 (614) 644-7061

Allegrì, Theodore H. *Handling and Management of Hazardous Materials and Wastes*. Chapman and Hall, T 55.3 H3 A45 1986

Applied Foodservice Sanitation: A Foundation Textbook. 4th ed. Wiley in cooperation with the Educational Foundation of the National Restaurant Association, 1992 TX 911.3 S3 A68 1992

Marriott, Norman G. *Principles of Food Sanitation*. 2nd ed. Van Nostrand, 1989. TP 373. 6 M37 1989

Morgan, Monroe T. *Environmental Health*, Brown & Benchmark, 1993. RA 566 M67 1993

Salvato, Joseph, *Environmental Engineering and Sanitation*. 4th ed. Wiley, 1992. TD 145 S24 1992.

Sterritt, Robert M. *Microbiology for Environmental and Public Health Engineers*. Spon. 1988 QR 41.2 S778 1988