

The **Occupation Profiles** tool is located on QualityInfo.org, a website of the **Oregon Employment Department**

Natural Sciences Managers (119121)

Portland Tri-County (Clackamas, Multnomah, Washington)

State of Oregon Licenses and Certifications

for Natural Sciences Managers

No statewide license is required for this occupation.

Wage Range

for Natural Sciences Managers

Area	10th Percentile	25th Percentile	50th Percentile (Median)	75th Percentile	90th Percentile	Average Hourly	Average Annual
Oregon	\$37.89	\$43.85	\$51.05	\$60.88	\$73.65	\$53.72	\$111,732
Portland Tri-County	41.39	49.52	56.61	64.40	77.65	58.18	121,014

Employment Outlook

for Natural Sciences Managers

Statewide Employment Analysis	<p>Employment in this occupation in 2017 was similar to most occupations across the state. The total number of job openings is projected to be similar to job openings for most occupations in Oregon through 2027. This occupation is expected to grow at about the statewide average growth rate for all occupations through 2027.</p> <p>Reasonable employment opportunities exist.</p>
Area Employment Analysis	<p>Employment in this occupation in 2017 was similar to most occupations in the region. The total number of job openings is projected to be similar to job openings for most occupations in the region through 2027. This occupation is expected to grow at about the regional average growth rate for all occupations through 2027.</p>

Area Employment Projections

for Natural Sciences Managers

Replacement openings are caused by existing workers permanently leaving their occupation. Many additional job openings occur due to job changes within occupations.

Area	2017 Employment	2027 Employment	Percent Change	Annual Change Openings	Annual Replacement Openings	Total Annual Openings
Oregon	1,106	1,231	11.3%	12	92	104
Portland Tri-County	573	661	15.4%	9	49	58

Industries of Employment

for Natural Sciences Managers

Industry	Ownership	2017 Employment
Total All Industries	All	573
Manufacturing	Private	19
Scientific Research and Development Services	Private	68
Other Services (except Government)	Private	16
Religious, Grantmaking, Civic, Professional, and Similar Organizations	Private	16
Social Advocacy Organizations	Private	13
Total Federal Government Employment	Federal	148

Industries of Employment

for Natural Sciences Managers

Industry	Ownership	2017 Employment
State Government, Excluding Education and Hospitals	State	54
Local Government, Excluding Education and Hospitals	Local	89

Educational Requirements

for Natural Sciences Managers

The typical entry level education for this occupation is a bachelor's degree. Those with a master's degree have a competitive advantage in the labor market.

Knowledge

for Natural Sciences Managers

Examples of the knowledge needed for success in this occupation is listed below, in order of importance. This information comes from the Occupational Information Network (O*NET).

- **English Language:** Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- **Administration and Management:** Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- **Customer and Personal Service:** Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- **Mathematics:** Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Skills

for Natural Sciences Managers

Examples of the skills needed for success in this occupation are listed below, in order of importance. This information comes from the Occupational Information Network (O*NET).

- **Writing:** Writing things for co-workers or customers.
- **Speaking:** Talking to others.
- **Reading Comprehension:** Reading work-related information.
- **Critical Thinking:** Thinking about the pros and cons of different ways to solve a problem.
- **Active Listening:** Listening to others, not interrupting, and asking good questions.
- **Complex Problem Solving:** Noticing a problem and figuring out the best way to solve it.
- **Science:** Using scientific rules and strategies to solve problems.
- **Judgment and Decision Making:** Thinking about the pros and cons of different options and picking the best one.
- **Management of Personnel Resources:** Selecting and managing the best workers for a job.
- **Monitoring:** Keeping track of how well people and/or groups are doing in order to make improvements.
- **Active Learning:** Figuring out how to use new ideas or things.
- **Social Perceptiveness:** Understanding people's reactions.
- **Time Management:** Managing your time and the time of other people.
- **Coordination:** Changing what is done based on other people's actions.

Abilities

for Natural Sciences Managers

Examples of the abilities needed for success in this occupation are listed below, in order of importance. This information comes from the Occupational Information Network (O*NET).

- **Oral Comprehension:** Listening and understanding what people say.
- **Written Expression:** Communicating by writing.
- **Written Comprehension:** Reading and understanding what is written.
- **Deductive Reasoning:** Using rules to solve problems.
- **Oral Expression:** Communicating by speaking.
- **Inductive Reasoning:** Making general rules or coming up with answers from lots of detailed information.
- **Speech Clarity:** Speaking clearly.
- **Speech Recognition:** Recognizing spoken words.
- **Information Ordering:** Ordering or arranging things.
- **Near Vision:** Seeing details up close.
- **Problem Sensitivity:** Noticing when problems happen.
- **Category Flexibility:** Grouping things in different ways.
- **Fluency of Ideas:** Coming up with lots of ideas.
- **Originality:** Creating new and original ideas.

Detailed Work Activities

for Natural Sciences Managers

Examples of the detailed work activities involved with this occupation are listed below, in order of importance. This information comes from the Occupational Information Network (O*NET).

- Coordinate operational activities with external stakeholders.
- Establish interpersonal business relationships to facilitate work activities.
- Communicate organizational information to customers or other stakeholders.
- Manage operations, research, or logistics projects.
- Direct organizational operations, projects, or services.
- Analyze data to inform operational decisions or activities.
- Prepare operational progress or status reports.
- Develop operating strategies, plans, or procedures.
- Develop organizational goals or objectives.
- Develop organizational policies or programs.
- Implement organizational process or policy changes.
- Develop organizational methods or procedures.
- Evaluate employee performance.
- Hire personnel.
- Supervise employees.
- Recruit personnel.
- Manage human resources activities.
- Prepare proposals or grant applications to obtain project funding.
- Prepare operational budgets.
- Approve expenditures.
- Prepare financial documents, reports, or budgets.
- Present information to the public.
- Conduct employee training programs.
- Advise others on legal or regulatory compliance matters.

Schools and Training Providers

for Natural Sciences Managers

The training providers listed below offer programs related to this occupation. This information is updated once per year. Anyone interested in a particular program should check with the training institution regarding its availability. Listing these training providers does not necessarily constitute or imply their endorsement, recommendation, or favoring by the State of Oregon.

School	City	Programs of Training and 2016 Graduates		
Clackamas Community College	Oregon City	Biology/Biological Sciences, General	Associate Degree	0
		Geology/Earth Science, General	Associate Degree	0
Linn-Benton Community College	Albany	Biological and Physical Sciences	Associate Degree	0
		Biology/Biological Sciences, General	Associate Degree	3
		Chemistry, General	Associate Degree	4
		Geology/Earth Science, General	Associate Degree	0
		Mathematics, General	Associate Degree	2
		Physics, General	Associate Degree	1
Mt Hood Community College	Gresham	Biology/Biological Sciences, General	Associate Degree	14
		Chemistry, General	Associate Degree	0
		Geology/Earth Science, General	Associate Degree	2
		Mathematics, General	Associate Degree	1
		Physics, General	Associate Degree	2
Oregon Coast Community College	Newport	Marine Biology and Biological Oceanography	Postsec. Awards/Cert./Diplomas ; 1-2 yrs.	8
		Marine Biology and Biological Oceanography	Associate Degree	3
Portland Community College	Portland	Biotechnology	Postsec. Awards/Cert./Diplomas ; <1 yr.	16
		Biotechnology	Associate Degree	13
		Zoology/Animal Biology	Associate Degree	8
Southwestern Oregon Community College	Coos Bay	Biological and Physical Sciences	Associate Degree	0
		Mathematics, General	Associate Degree	0

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School	City	Programs of Training and 2016 Graduates		
Treasure Valley Community College	Ontario	Biology/Biological Sciences, General	Associate Degree	4
		Chemistry, General	Associate Degree	1
		Geology/Earth Science, General	Associate Degree	0
		Mathematics, General	Associate Degree	0
		Physics, General	Associate Degree	0
Concordia University-Portland	Portland	Biology/Biological Sciences, General	Bachelor's Degree	11
		Chemistry, General	Bachelor's Degree	1
Corban University	Salem	Mathematics, General	Bachelor's Degree	4
Eastern Oregon University	La Grande	Biochemistry	Bachelor's Degree	10
		Biology/Biological Sciences, General	Bachelor's Degree	14
		Chemistry, General	Bachelor's Degree	3
		Mathematics, General	Bachelor's Degree	5
George Fox University	Newberg	Biochemistry	Bachelor's Degree	2
		Biological and Biomedical Sciences, Other	Bachelor's Degree	0
		Biology/Biological Sciences, General	Bachelor's Degree	24
		Chemistry, General	Bachelor's Degree	2
		Mathematics, General	Bachelor's Degree	3
		Physics, General	Bachelor's Degree	13
Lewis & Clark College	Portland	Biochemistry	Bachelor's Degree	17
		Biology/Biological Sciences, General	Bachelor's Degree	40
		Chemistry, General	Bachelor's Degree	8
		Mathematics and Computer Science	Bachelor's Degree	6
		Mathematics, General	Bachelor's Degree	13
		Physics, General	Bachelor's Degree	13
Linfield College-McMinnville Campus	McMinnville	Biochemistry and Molecular Biology	Bachelor's Degree	7
		Biology/Biological Sciences, General	Bachelor's Degree	16
		Chemistry, General	Bachelor's Degree	3
		Engineering Physics/Applied Physics	Bachelor's Degree	7
		Mathematics, General	Bachelor's Degree	15
		Physical Sciences	Bachelor's Degree	1
		Physics, General	Bachelor's Degree	4
Northwest Christian University	Eugene	Biology/Biological Sciences, General	Bachelor's Degree	5
		Mathematics, General	Bachelor's Degree	3

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School	City	Programs of Training and 2016 Graduates		
Oregon Health & Science University	Portland	Biochemistry and Molecular Biology	Master's Degree	7
		Biochemistry and Molecular Biology	Doctor's degree - research/scholarship	6
		Biostatistics	Postbaccalaureate Certificates	0
		Biostatistics	Master's Degree	4
		Cell/Cellular Biology and Histology	Master's Degree	1
		Cell/Cellular Biology and Histology	Doctor's degree - research/scholarship	1
		Microbiology, General	Master's Degree	0
		Microbiology, General	Doctor's degree - research/scholarship	5
		Molecular Genetics	Doctor's degree - research/scholarship	0
		Neuroscience	Master's Degree	1
		Neuroscience	Doctor's degree - research/scholarship	8
		Pharmacology	Doctor's degree - research/scholarship	3
Oregon Institute of Technology	Klamath Falls	Biology/Biological Sciences, General	Bachelor's Degree	20
		Computational and Applied Mathematics	Bachelor's Degree	5

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School	City	Programs of Training and 2016 Graduates		
Oregon State University	Corvallis	Biochemistry and Molecular Biology	Bachelor's Degree	23
		Biochemistry and Molecular Biology	Master's Degree	0
		Biochemistry and Molecular Biology	Doctor's degree - research/scholarship	1
		Biology/Biological Sciences, General	Bachelor's Degree	134
		Biotechnology	Bachelor's Degree	10
		Biotechnology	Master's Degree	1
		Botany/Plant Biology	Bachelor's Degree	11
		Botany/Plant Biology	Master's Degree	5
		Botany/Plant Biology	Doctor's degree - research/scholarship	4
		Chemistry, General	Bachelor's Degree	54
		Chemistry, General	Master's Degree	7
		Chemistry, General	Doctor's degree - research/scholarship	12
		Engineering Physics/Applied Physics	Master's Degree	0
		Entomology	Master's Degree	0
		Entomology	Doctor's degree - research/scholarship	0
		Geological and Earth Sciences/Geosciences, Other	Bachelor's Degree	36
		Geology/Earth Science, General	Bachelor's Degree	1
		Geology/Earth Science, General	Master's Degree	7
		Geology/Earth Science, General	Doctor's degree - research/scholarship	2
		Hydrology and Water Resources Science	Master's Degree	6
		Hydrology and Water Resources Science	Doctor's degree - research/scholarship	1
		Mathematics, General	Bachelor's Degree	57
		Mathematics, General	Master's Degree	16
		Mathematics, General	Doctor's degree - research/scholarship	6
		Microbiology, General	Bachelor's Degree	97
		Microbiology, General	Master's Degree	3
		Microbiology, General	Doctor's degree - research/scholarship	7
		Natural Sciences	Bachelor's Degree	32
		Oceanography, Chemical and Physical	Master's Degree	5
		Oceanography, Chemical and Physical	Doctor's degree - research/scholarship	8
		Physics, General	Bachelor's Degree	16
		Physics, General	Master's Degree	0
		Physics, General	Doctor's degree - research/scholarship	5

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School	City	Programs of Training and 2016 Graduates		
		Research and Development Management	Bachelor's Degree	9
		Statistics, General	Master's Degree	17
		Statistics, General	Doctor's degree - research/scholarship	2
		Statistics, Other	Postbaccalaureate Certificates	0
		Statistics, Other	Master's Degree	0
		Toxicology	Master's Degree	1
		Toxicology	Doctor's degree - research/scholarship	3
		Zoology/Animal Biology	Bachelor's Degree	61
		Zoology/Animal Biology	Master's Degree	1
		Zoology/Animal Biology	Doctor's degree - research/scholarship	6
Pacific University	Forest Grove	Biochemistry	Bachelor's Degree	0
		Biology/Biological Sciences, General	Bachelor's Degree	41
		Chemical Physics	Bachelor's Degree	0
		Chemistry, General	Bachelor's Degree	15
		Mathematics, General	Bachelor's Degree	5
		Physical Sciences	Bachelor's Degree	4
		Physics, General	Bachelor's Degree	5
		Physics, Other	Bachelor's Degree	0

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School	City	Programs of Training and 2016 Graduates		
Portland State University	Portland	Biochemistry	Bachelor's Degree	21
		Biological and Physical Sciences	Bachelor's Degree	143
		Biological and Physical Sciences	Master's Degree	11
		Biology/Biological Sciences, General	Bachelor's Degree	151
		Biology/Biological Sciences, General	Master's Degree	8
		Biology/Biological Sciences, General	Doctor's degree - research/scholarship	4
		Chemistry, General	Bachelor's Degree	13
		Chemistry, General	Master's Degree	7
		Chemistry, General	Doctor's degree - research/scholarship	9
		Geological and Earth Sciences/Geosciences, Other	Postbaccalaureate	2
		Geological and Earth Sciences/Geosciences, Other	Certificates	
		Geological and Earth Sciences/Geosciences, Other	Master's Degree	0
		Geology/Earth Science, General	Bachelor's Degree	25
		Geology/Earth Science, General	Master's Degree	9
		Hydrology and Water Resources Science	Postbaccalaureate	6
		Hydrology and Water Resources Science	Certificates	
		Mathematics, General	Bachelor's Degree	46
		Mathematics, General	Master's Degree	12
		Mathematics, General	Doctor's degree - research/scholarship	3
		Physics, General	Bachelor's Degree	34
		Physics, General	Master's Degree	6
		Physics, General	Doctor's degree - research/scholarship	1
		Statistics, General	Postbaccalaureate	1
		Statistics, General	Certificates	
		Statistics, General	Master's Degree	6
Reed College	Portland	Biochemistry	Bachelor's Degree	13
		Biology/Biological Sciences, General	Bachelor's Degree	20
		Chemistry, General	Bachelor's Degree	10
		Mathematics, General	Bachelor's Degree	21
		Physics, General	Bachelor's Degree	14
Southern Oregon University	Ashland	Biological and Physical Sciences	Master's Degree	0
		Biology/Biological Sciences, General	Bachelor's Degree	33
		Botany/Plant Biology	Postbaccalaureate	0
		Botany/Plant Biology	Certificates	
		Chemistry, General	Bachelor's Degree	11
		Computational and Applied Mathematics	Master's Degree	4
		Mathematics		
		Mathematics and Computer Science	Bachelor's Degree	0
		Mathematics and Computer Science	Master's Degree	0
		Mathematics, General	Bachelor's Degree	10
		Mathematics, General	Master's Degree	0
		Physics, General	Bachelor's Degree	10

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School	City	Programs of Training and 2016 Graduates		
University of Oregon	Eugene	Biochemistry	Bachelor's Degree	32
		Biological and Physical Sciences	Bachelor's Degree	72
		Biology/Biological Sciences, General	Bachelor's Degree	129
		Biology/Biological Sciences, General	Master's Degree	17
		Biology/Biological Sciences, General	Doctor's degree - research/scholarship	12
		Chemistry, General	Bachelor's Degree	22
		Chemistry, General	Master's Degree	49
		Chemistry, General	Doctor's degree - research/scholarship	18
		Geology/Earth Science, General	Bachelor's Degree	23
		Geology/Earth Science, General	Master's Degree	1
		Geology/Earth Science, General	Doctor's degree - research/scholarship	3
		Marine Biology and Biological Oceanography	Bachelor's Degree	16
		Mathematics and Computer Science	Bachelor's Degree	2
		Mathematics, General	Bachelor's Degree	71
		Mathematics, General	Master's Degree	5
		Mathematics, General	Doctor's degree - research/scholarship	5
		Physics, General	Bachelor's Degree	28
		Physics, General	Master's Degree	11
		Physics, General	Doctor's degree - research/scholarship	10
		Physics, Other	Master's Degree	26
University of Portland	Portland	Biology/Biological Sciences, General	Bachelor's Degree	94
		Chemistry, General	Bachelor's Degree	23
		Mathematics, General	Bachelor's Degree	24
		Physics, General	Bachelor's Degree	4
University of Western States	Portland	Biological and Biomedical Sciences, Other	Bachelor's Degree	0
Warner Pacific College	Portland	Biology/Biological Sciences, General	Bachelor's Degree	8
		Physical Sciences	Bachelor's Degree	1
Western Oregon University	Monmouth	Biological and Physical Sciences	Master's Degree	1
		Biology/Biological Sciences, General	Bachelor's Degree	26
		Chemistry, General	Bachelor's Degree	6
		Geology/Earth Science, General	Bachelor's Degree	3
		Mathematics and Computer Science	Bachelor's Degree	7
		Mathematics, General	Bachelor's Degree	8
		Mathematics, General	Master's Degree	1
Willamette University	Salem	Biology/Biological Sciences, General	Bachelor's Degree	32
		Chemistry, General	Bachelor's Degree	24
		Mathematics, General	Bachelor's Degree	12
		Neuroscience	Bachelor's Degree	1
		Physics, General	Bachelor's Degree	11

Career Pathways

for Natural Sciences Managers

These Oregon community colleges have defined career pathway roadmaps to facilitate entry into this occupation.

Community College	Pathway
Klamath Community College	Agriculture & Natural Resources Systems
Lane Community College	Water Conservation Technician
	Water/Watershed Science Technician

Related Occupations

for Natural Sciences Managers

Occupations related to Natural Sciences Managers are listed below. This information comes from the Occupational Information Network (O*NET).

- Biological Scientists
- Environmental Scientists and Specialists, Including Health
- Materials Scientists
- Chemistry Teachers, Postsecondary
- Physical Scientists, All Other
- Zoologists and Wildlife Biologists
- Animal Scientists
- Soil and Plant Scientists
- Forestry and Conservation Science Teachers, Postsecondary
- Conservation Scientists