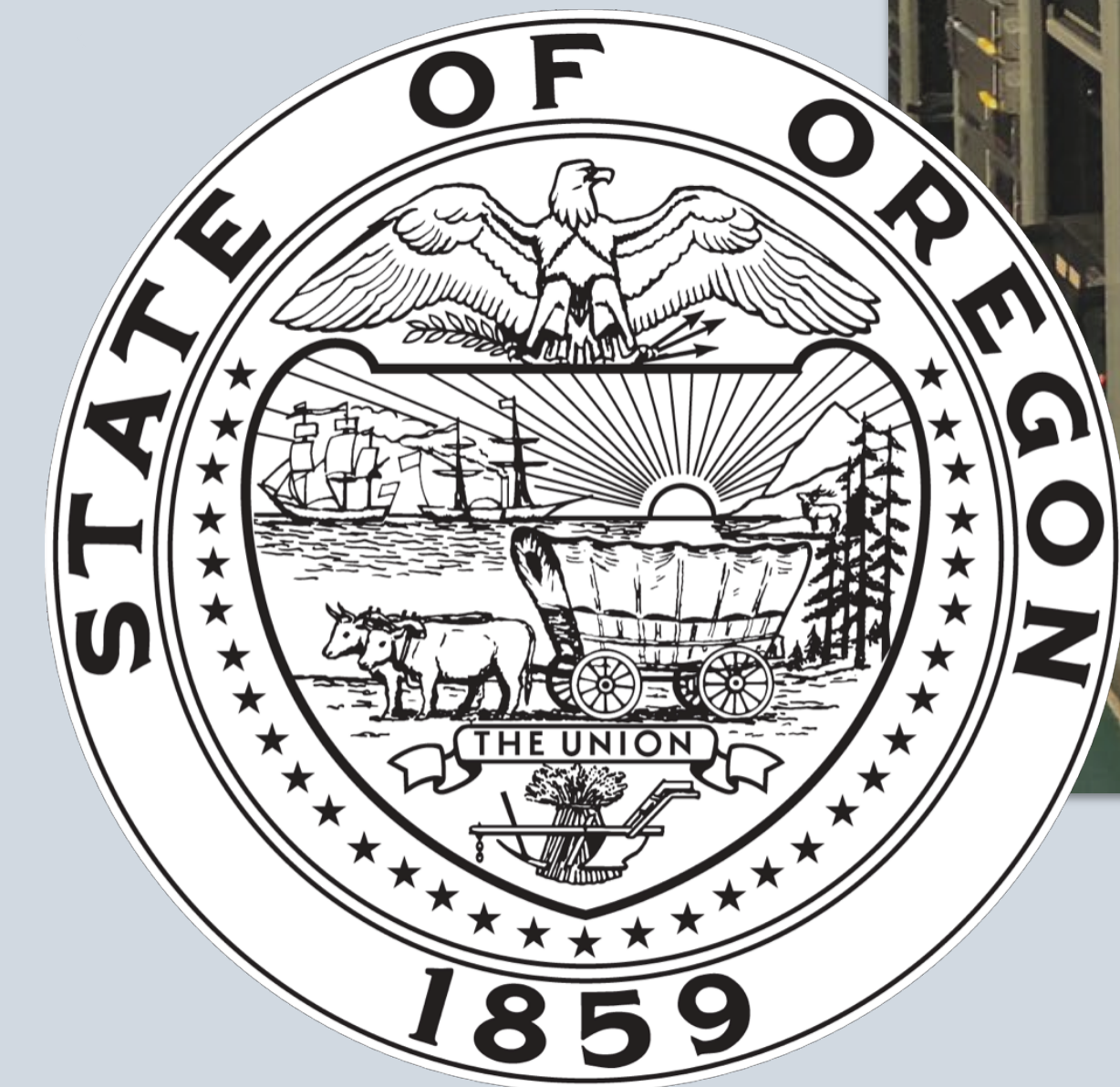
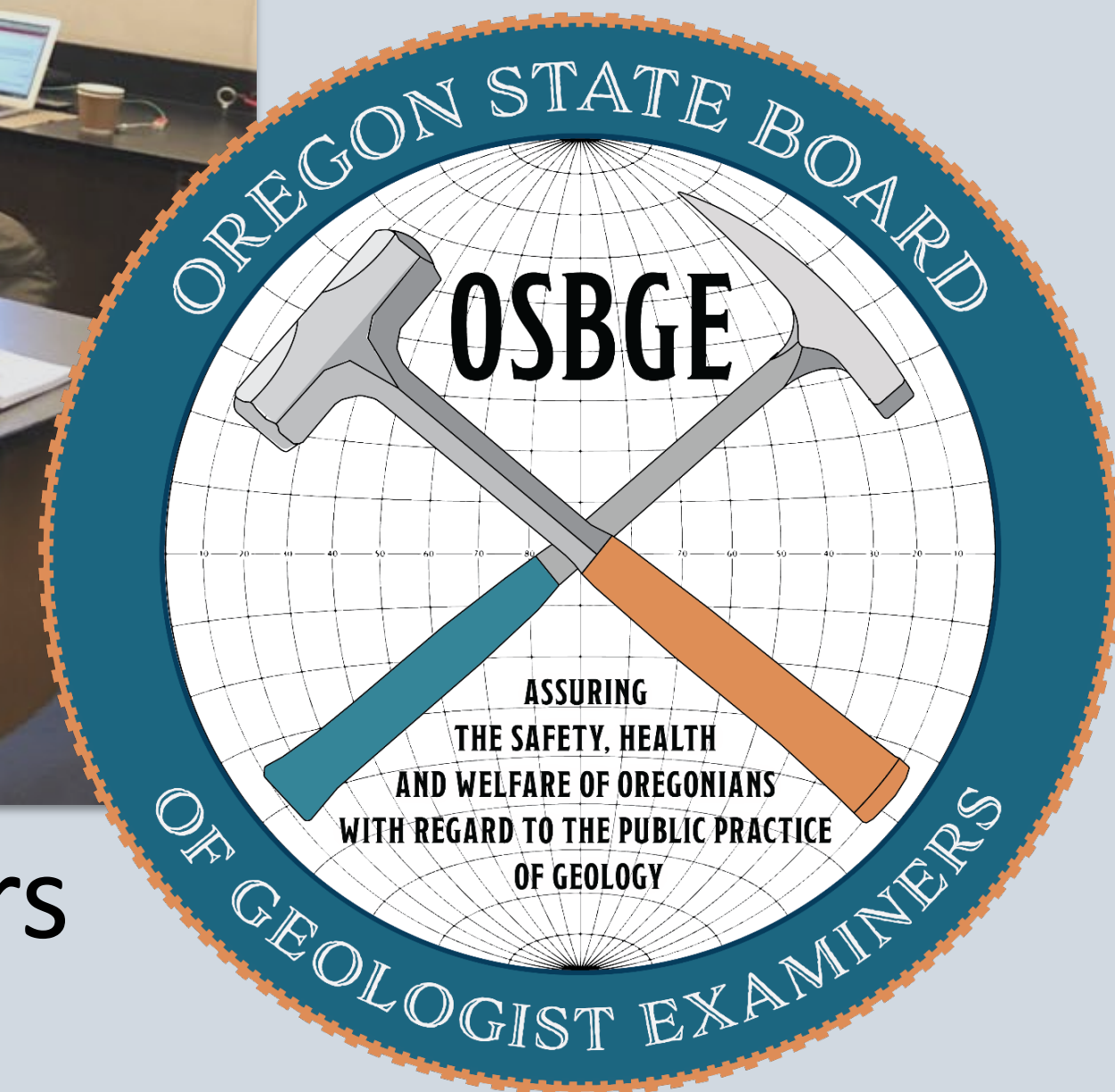


# Registration (Licensing) for Geology Careers in Oregon



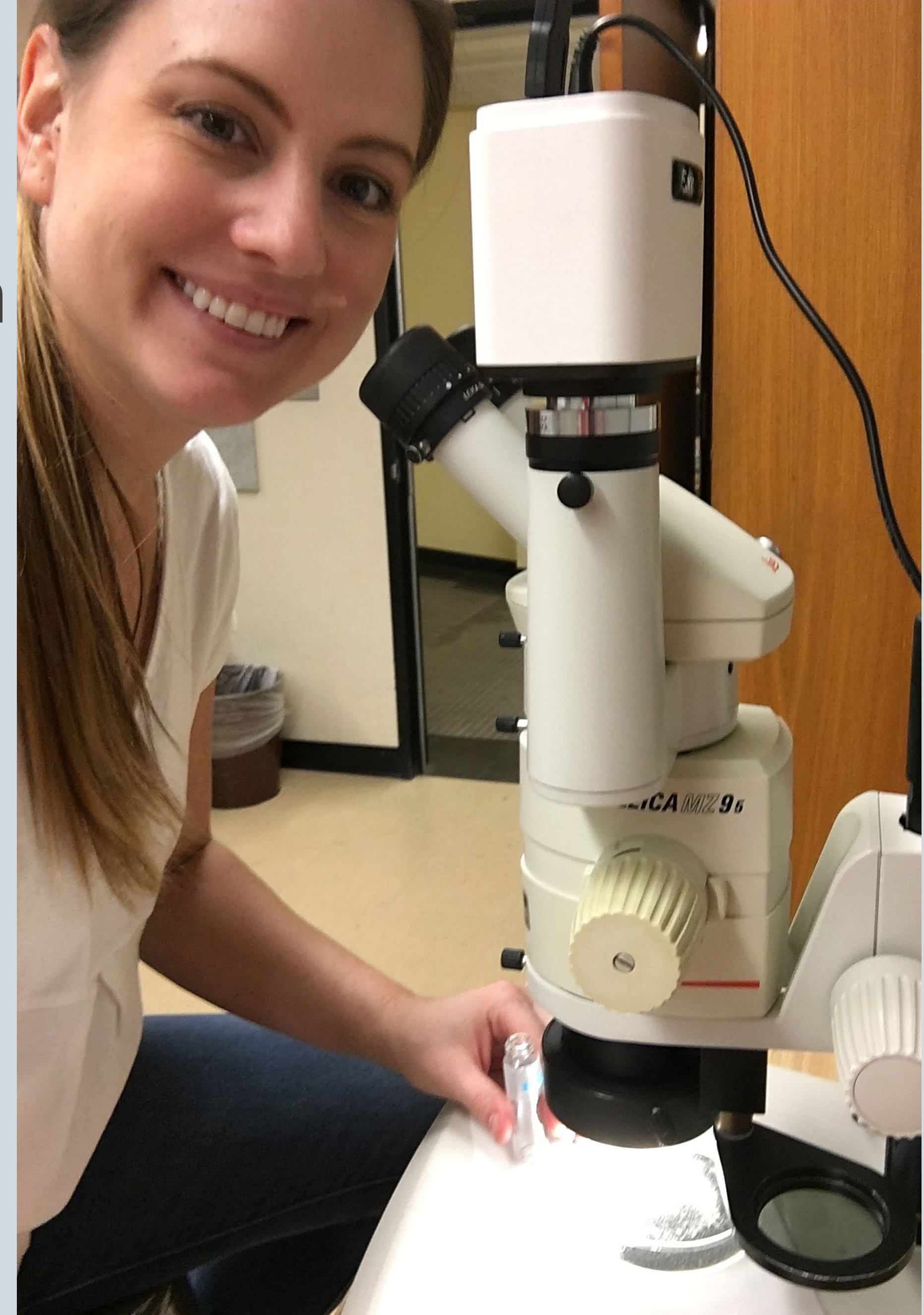
Oregon State Board of Geologist Examiners  
Professionals in Service to Oregonians Since 1977



- 1 History and Importance of Registration
- 2 Examinations
- 3 Registration Types
- 4 Benefits of Registration
- 5 How to Become Registered
- 6 Geology Career Resources



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At the state government level, we have laws governing the practice of geology. Why?

- ✓ Establish minimum standards of **competency**
- ✓ Create **legal responsibility** for work performed
- ✓ To protect the health, safety, property, and welfare of the public

**OSBGE** is a state government agency created in 1977. It is the State of Oregon's professional licensure board for geologists.

### **OSBGE Mission**

Help assure the safety, health, and welfare of Oregonians with regard to the public practice of geology



# OSBGE Members and Staff



Stephanie Salisbury, RG, Chair



Michelle Wright, RG, CEG Registrant Member



Beth Rapp, RG, CEG Registrant Member



Heather Gosack, RG Registrant Member



Andrea Balbas, PhD, Public Member



Ruarri Day-Stirrat, PhD, RG Ex Officio Member



Christine Valentine, MS Staff Administrator



Melissa Morris, BS Staff Registration Specialist

# OSBGE Function

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- ✓ Register (license)
- ✓ Promote ethics
- ✓ Respond to complaints
- ✓ Perform outreach
- ✓ Promote continuing education
- ✓ Cooperate with related boards



# Public Practice in Oregon

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## Who must be **registered**?

- ✓ Those who perform geological service or work related to public welfare or safeguarding of life, health, property, and environment

## Who is **exempted**?

- ✓ Federal or tribal employees
- ✓ University professors
- ✓ Subordinates to registered geologists
- ✓ Private citizens providing testimony at public hearings

# How to Establish Competence? The 3 “E”s

---

Each state board makes its own requirements.

Boards generally require:

- ✓ Post-secondary **EDUCATION**
- ✓ Passing two national **EXAMINATIONS**
- ✓ Qualifying work **EXPERIENCE**
- ✓ Additional exam/education for a specialty license



# Education – Accepted Geoscience Coursework

Minimum Credit = 2 yr., Maximum Credit = 4 yr.

***MINIMUM 45 quarter hours (36 upper division) or 30 semester hours (24 upper division)***

- Climate change science
- Coastal processes
- Economic geology
- Engineering geology
- Environmental geology
- Geochemistry or Hydrogeochemistry
- Geographic Information Systems (GIS)
- Geology field camp
- Geology field methods
- Geomorphology
- Geophysics
- Geostatistics
- Glacial geology
- Groundwater hydrology
- Groundwater modelling
- Historical geology
- Hydrogeology
- Lithology
- Marine geology
- Mineral exploration
- Mineralogy, Optical mineralogy, or Clay mineralogy
- Paleopedology/Paleosols
- Petrography
- Petroleum geology
- Petrology
- Planetology
- Remote sensing
- Rock mechanics
- Sedimentology
- Seismology
- Soil Science
- Stratigraphy
- Structural geology
- Tectonics
- Volcanology





## Work Experience

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Gained under the supervision of RG or CEG

7 TOTAL YEARS

2 yr. education credit + 5 yr. work

3 yr. education credit + 4 yr. work

4 yr. education credit + 3 yr. work

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## Examination - Association of State Boards of Geology (ASBOG)

- ✓ A separate entity from state licensure boards
- ✓ ASBOG does not grant registrations; it is an examination body
- ✓ ASBOG Council of Examiners meets twice per year to review exam sections
- ✓ ASBOG exam sections:
  - Fundamentals of Geology (FG)
  - Practice of Geology (PG)



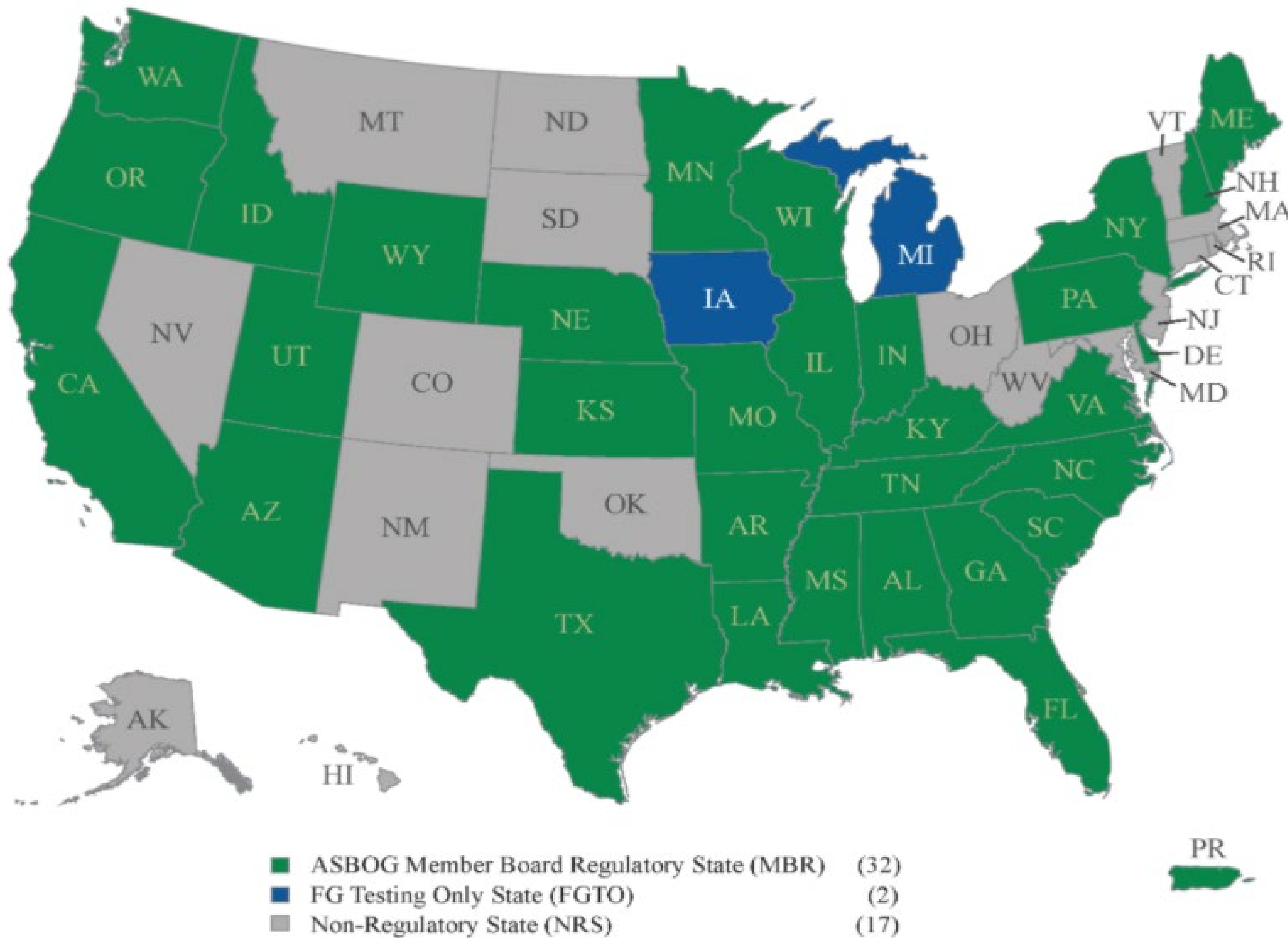
# United States & Puerto Rico

Passage of ASBOG exams & state registration required in 32 states & Puerto Rico.

Oregon has required registration since 1978 and been an ASBOG member since 1990.

2 states use the ASBOG FG exam but do not register.

17 do not use exams & do not register.



## ASBOG Fundamentals of Geology (FG) Exam “GIT” Exam

- ✓ 4-hour exam
- ✓ 140 multiple choice questions
- ✓ Knowledge and skills gained from **education**
- ✓ Must have completed the **required coursework**
- ✓ Pass FG → apply for GIT

## ASBOG Practice of Geology (PG) Exam “RG” Exam

- ✓ 4-hour exam
- ✓ 110 multiple choice questions
- ✓ Knowledge and skills gained from **work**, i.e., applied geology
- ✓ Must have completed **required coursework + work experience**
- ✓ Pass FG + PG → apply for RG

**Note:** ASBOG is a separate entity from the Oregon Board! Go to [asbog.org](http://asbog.org) for more information.

# ASBOG Exam Content Areas

## Content Domain

**FG %**

**PG %**

A. General & Field Geology

21

20

B. Mineralogy, Petrology, & Geochemistry

11

05

C. Sedimentology, Stratigraphy, & Paleontology

12

06

D. Geomorphology, Surficial Processes, Quaternary Geology

13

08

E. Structure, Tectonics, & Seismology

11

08

F. Hydrogeology

12

19

G. Engineering Geology

11

19

H. Economic Geology & Energy Resources

09

15

**TOTALS**

**100**

**100**

✓ Visit [oregon.gov/osbge](http://oregon.gov/osbge) for application

✓ Visit [asbog.org](http://asbog.org) for exam information



## ASBOG Exams Offered Twice per Year

2026 Spring March 20 • 2026 Fall October 2

2027 Spring March 19 • 2027 Fall October 1

June 24, 2026

June 23, 2027

Dec. 09, 2026

***You apply through your state registration board.***

***Applications due to OSBGE 100 days prior to exam!***

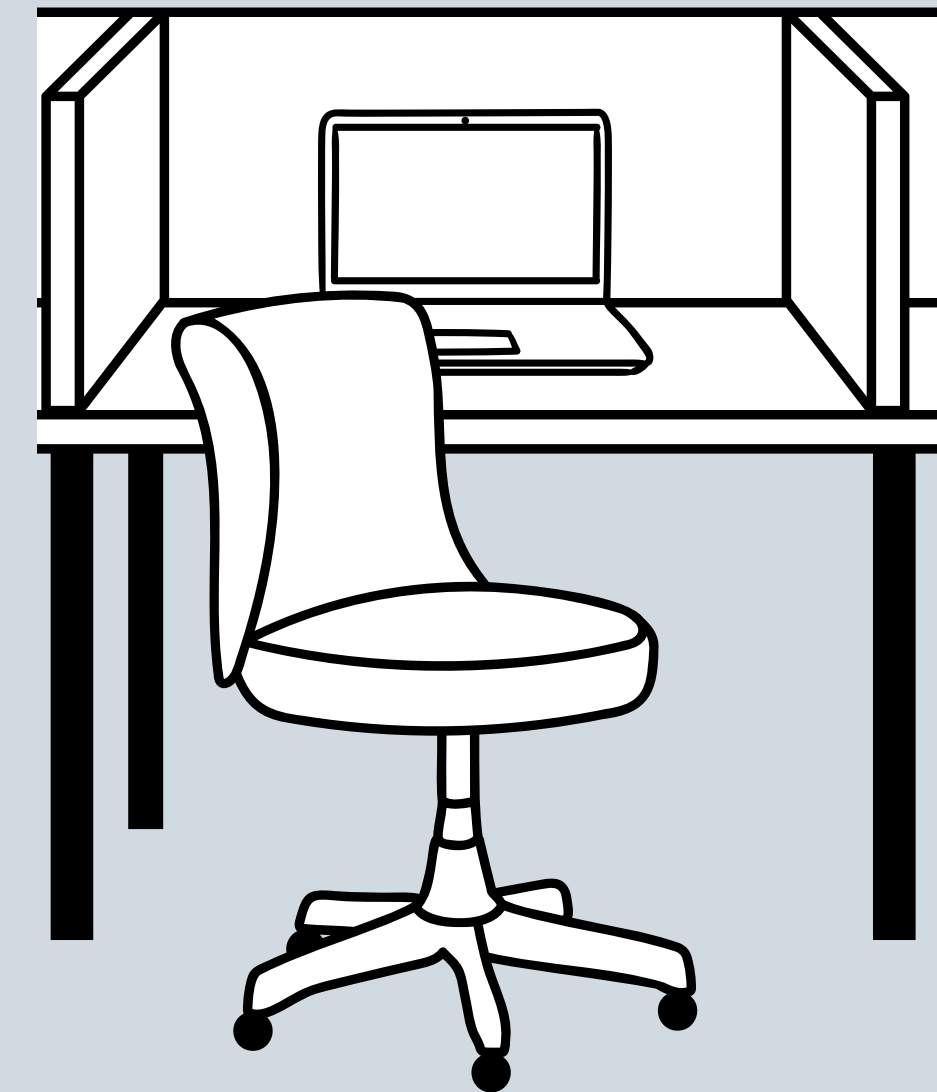
# ASBOG - Applying for Examination

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1. Apply to state board, i.e., OSBGE in Oregon.
2. Once approved, register through ASBOG's online testing vendor.

## ALLOWED ITEMS DURING EXAM:

- Government issued photo ID & admission letter
- Non-QWERTY calculator
- Key for testing center locker
- Glasses (no case)

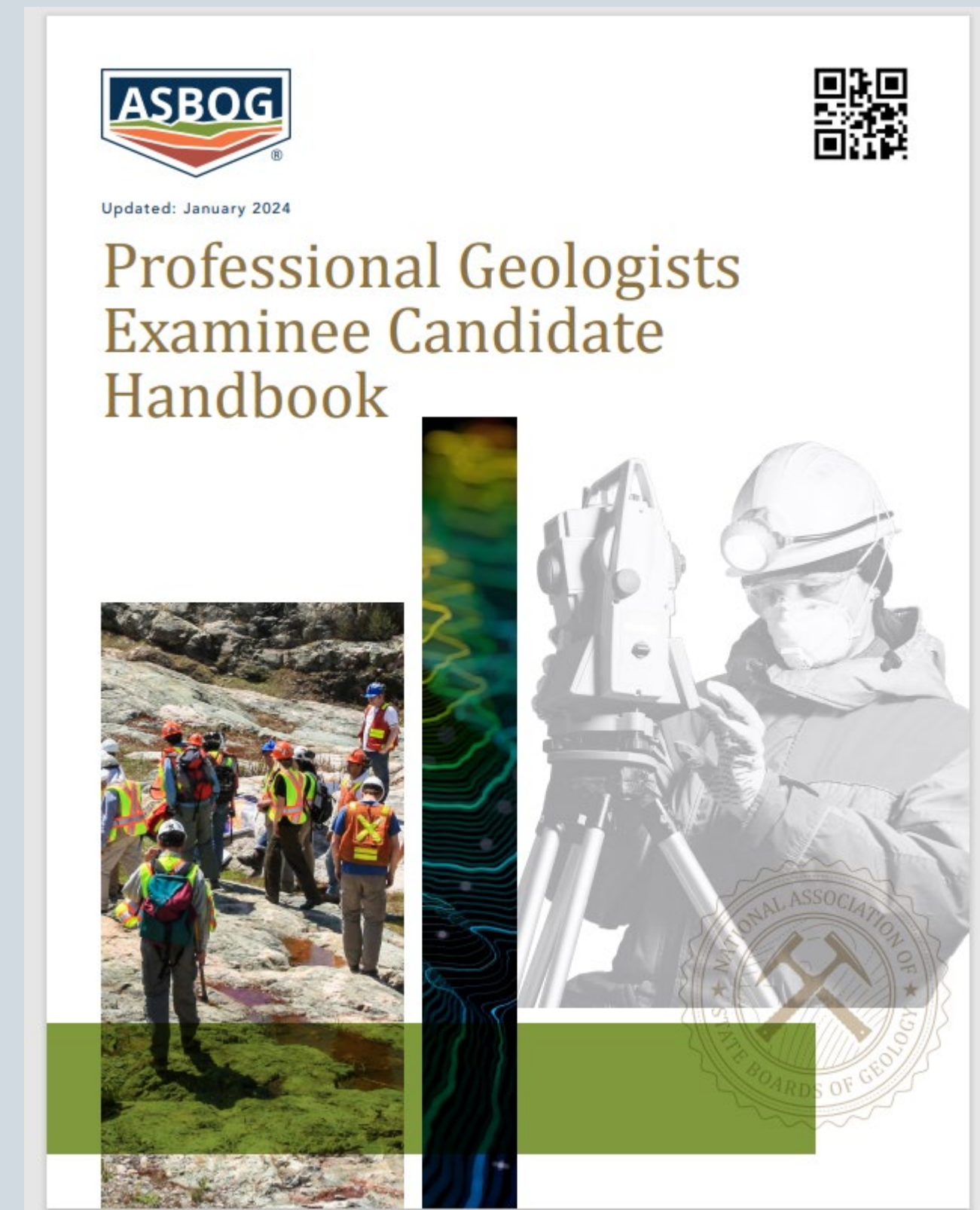


# ASBOG Candidate Handbook and Exam FAQs

## ASBOG Candidate Handbook

- ✓ Only official guidance
- ✓ 2024 version available for free at [www.asbog.org/candidates/](http://www.asbog.org/candidates/)
- ✓ Breakdown of subjects by percentage and sample questions

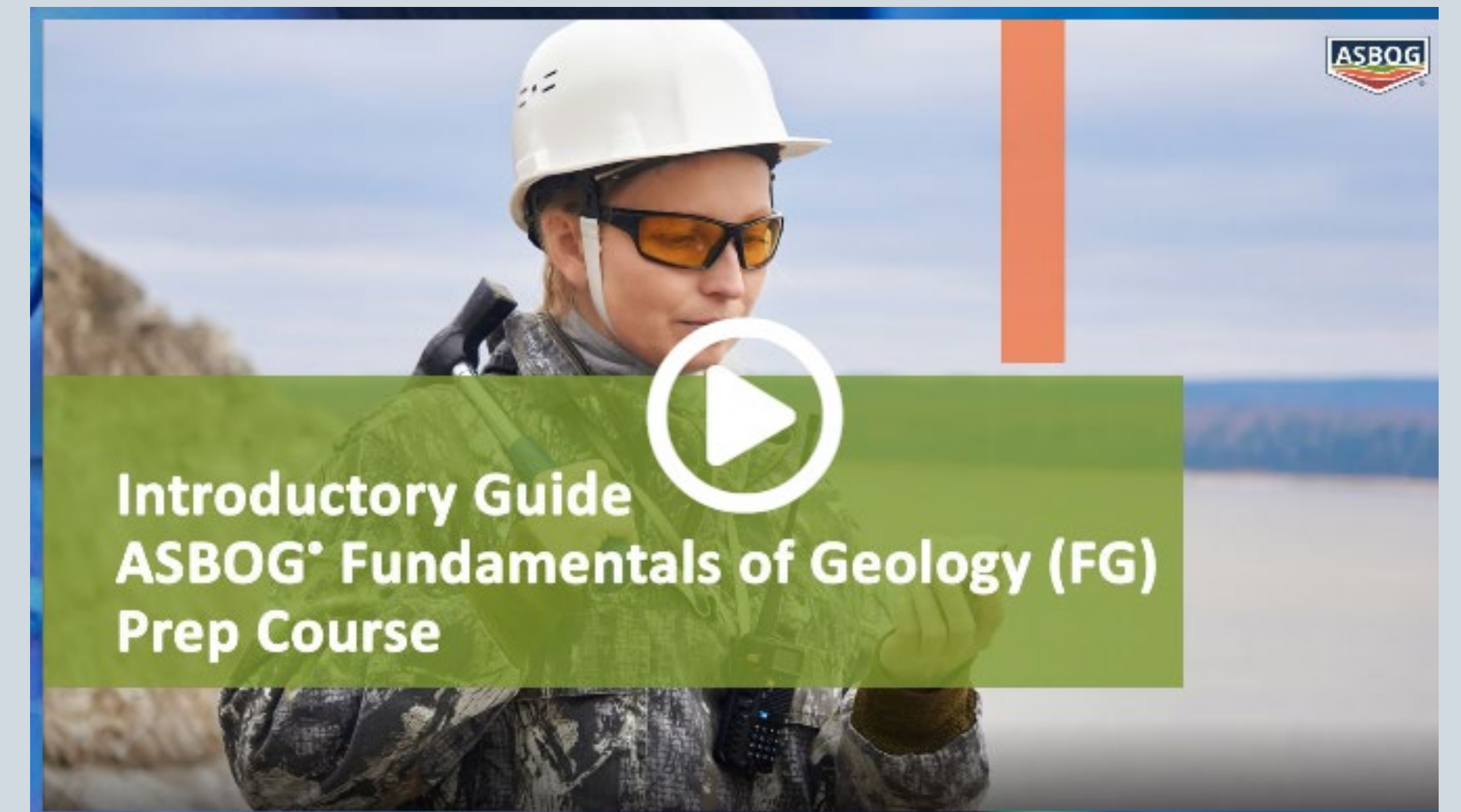
**ASBOG Exam FAQs** – also online





# ASBOG FG Prep Course

- ✓ New as of 2023
- ✓ 8+ hr. online course
- ✓ Given access for 6 months, can reinstate for another 6 months if do not pass the FG exam
- ✓ Cost of \$350 (subject to change)
- ✓ <https://www.asbog.org/fgprep/index.html>



**\*Not endorsement**



Candidate handbook

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FG Exam Prep Course

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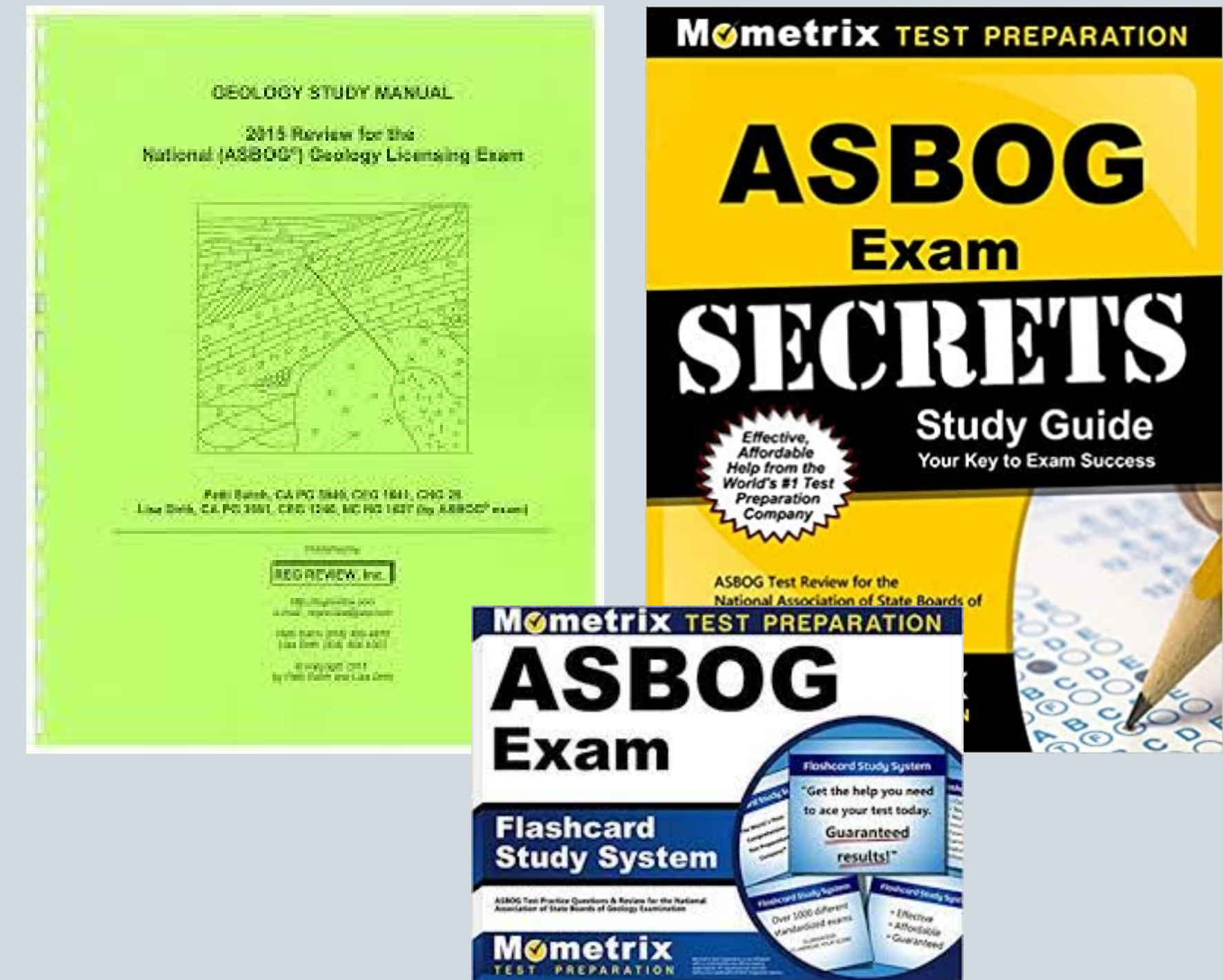
Candidate FAQ

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# Other Study Resources

- ✓ Private market, like REG Review\*
- ✓ MIT open courses
- ✓ College textbooks
- ✓ Study blue flashcards

**\*Not endorsements**



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# Registration Types in Oregon

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Geologist in Training (GIT)

Registered Geologist (RG)

Certified Engineering Geologist (CEG)



**Application for registration happens AFTER passing the required exam(s).**

# Oregon Statistics (4/2026)

128 GITs

861 RGs

168 CEGs

~50% of RGs and CEGs  
are out of state.

Data as of 01/2026



# Geologist-in-Training (GIT)

- ✓ Education + pass the ASBOG FG exam
- ✓ Optional registration; allows title use
- ✓ Not a practice registration (i.e., must work under supervision of RG or CEG)
- ✓ Subject to code of professional conduct
- ✓ Stepping-stone to RG



# Geologist-in-Training (GIT) - Continued

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So... what's the point?

- ✓ Show intent to employers
- ✓ Build technical competence
- ✓ Understand regulations
- ✓ Spread out 8 hours of exams
- ✓ Prepares you for format of next exam



# Registered Geologist (RG)

- ✓ Education + experience + pass the ASBOG FG + ASBOG PG exams
- ✓ Independent public practice in responsible charge
- ✓ Can stamp, sign, and date reports
- ✓ Can advertise as an RG



# Certified Engineering Geologist (CEG)

- ✓ Pass ASBOG FG + ASBOG RG + EG specialty exam
- ✓ CEGs must be RGs first!
- ✓ Additional authorization to develop, supervise and stamp work that falls under the definition of engineering geology
- ✓ Some of the highest paid positions!

**Specialty License**



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# What can registration do for me?

- ✓ Required in the majority of U.S. states
- ✓ Increases professional stature, career opportunities, and independence
- ✓ Demonstrates professional responsibility and increases credibility
- ✓ Authorized to stamping/sign work & mentor
- ✓ Equal footing with other licensed professionals
- ✓ Financial incentive

## Preferred Qualifications:

- Master's Degree in Hydrogeology, Geochemistry, Geology, Environmental Science, or related field
- Geologist-In-Training (GIT) or Registered Geologist (RG) license
- 2-4 years of environmental consulting experience
- Quantitative data analysis experience, including flow and transport models, statistical analysis, GIS, or scientific coding (R or Python)
- Current OSHA HAZWOPER 40 hr / 8 hr training

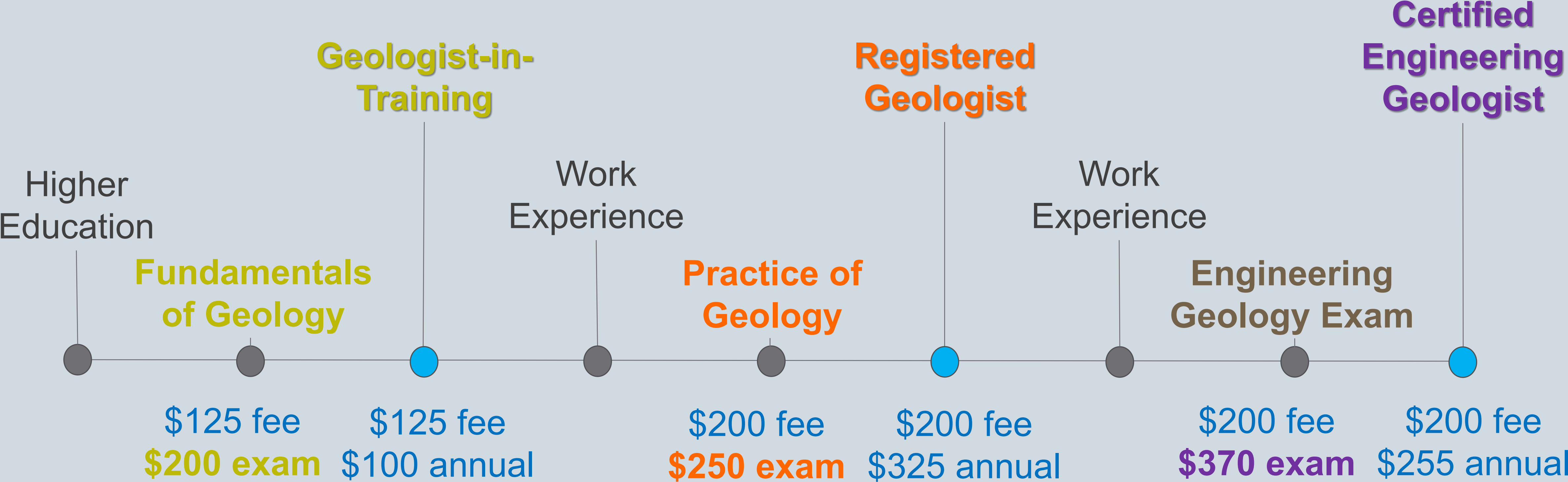
## • Desired:

- + Prior project experience in the Pacific Northwest is highly desired.+ A Master's Degree in environmental science/hydrogeology, geology, geosciences, or similar field.+ Strong computer skills, including Microsoft Excel, Word, PowerPoint, Access, ArcGIS, MODFLOW, R, Python, etc.+ Strong project management experience of multi-disciplinary teams.+ Experience with environmental statistics and site closure strategies is highly desired.+ Professional Engineer (PE) and/or Professional Geologist (PG) and/or Licensed Hydrogeologist (LHg) and/or Certified Water Rights Examiner (CWRE).+

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# Pathway to Registration in Oregon (Fees listed subject to change)



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# Careers

**Licensure may be required for positions involving work affecting the health, safety, welfare of the public and environment.**

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## **Environmental Geology**

- Hydrogeologist
- Geochemist
- Non-profit
- Field geologist

## **Geohazards**

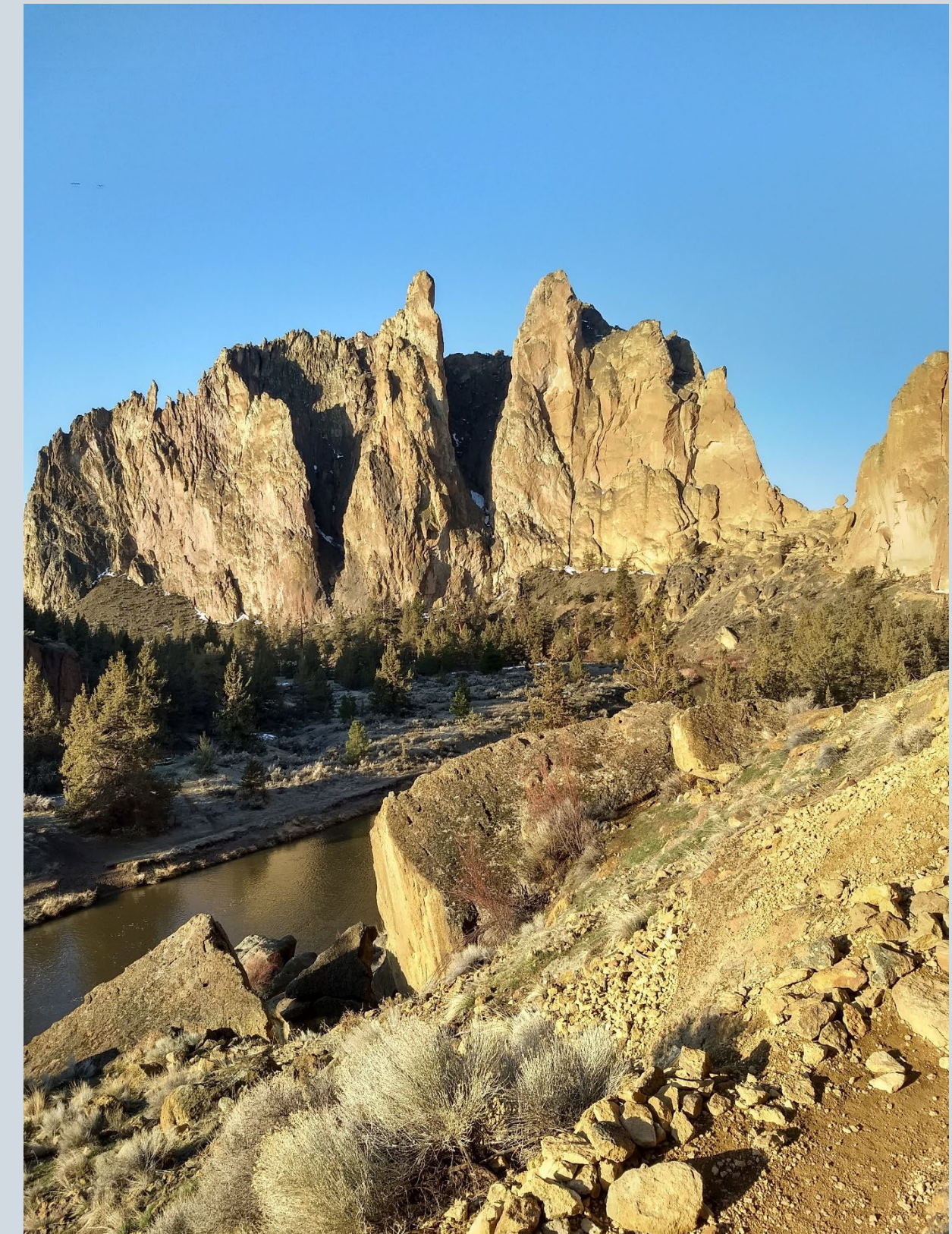
- Seismologist
- Volcanologist
- Coastal Geologist
- Engineering Geologist

## **Mining and Energy Resources**

- Structural Geologist
- Field Geologist
- Mining/Production Geologist
- Oil/Gas Production Geologist

## **Governmental/Regulatory**


Local government  
State government



# Tasks of a Professional Geologist

For each subject area covered in the ASBOG FG & PG, ASBOG lists tasks geologists are uniquely qualified to perform.

This [list](#) is not intended to define the entire scope of practice for RGs and CEGs.



**Tasks of a Professional Geologist**  
Statement by the National Association of State Boards of Geology

The National Association of State Boards of Geology (ASBOG®) is a non-profit organization, comprised of state boards which license/register geologists. ASBOG® develops national competency examinations used by these Member Boards. The ASBOG® examinations have been adopted by all of the states in the U.S. and the territory of Puerto Rico which have geologic practice acts. The following areas of professional practice contain generalized, and some specific, activities which may be performed by qualified, professional geologists.

Professional geologists are uniquely qualified to perform these activities based on their formal education, training and experience. Under each major heading is a group of activities associated with that specific area of geoscience practice. The major areas of professional, geologic practice include, but are not limited to: Research; Field Methods and Communications; Geochemistry; Mineralogy; Petrology; Stratigraphy; Historical, Structural, Paleontology; Geomorphology; Geophysics; Hydrogeology; Environmental, Geochemistry; Engineering Geology, Economic Geology; Mining Geology and Energy Resources. These areas are specifically included in the ASBOG® examinations to assure geologic competency. Again, this list represents only a cross-section of possible activities, and does not include all potential professional practice activities.

Also included in this publication is a listing of "Other related activities which may be performed by qualified Professional Geologists." These activities, although not specifically geoscience in content, may be performed by a qualified, professional geologist.

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**RESEARCH, FIELD METHODS AND COMMUNICATIONS**

- Plan and conduct field operations including human and ecological health, safety, and regulatory considerations
- Evaluate property/mineral rights
- Interpret regulatory constraints
- Select and interpret appropriate base maps for field investigations
- Determine scales and distances from remote imagery and/or maps
- Identify, locate and utilize available data sources
- Plan and conduct field operations and procedures to ensure public protection
- Construct borehole and trench logs
- Design and conduct laboratory programs and interpret results
- Evaluate historic land use or environmental conditions from remote imagery
- Develop and utilize Quality Assurance/Quality Control procedures
- Construct and interpret maps and other graphical presentations
- Write and edit geologic reports
- Interpret and analyze aerial photos, satellite and other imagery
- Perform geological interpretations from aerial photos, satellite and other imagery
- Design geologic monitoring programs
- Interpret data from geologic monitoring programs
- Read/interpret topographic and bathymetric maps
- Perform geologic research in field and laboratory
- Prepare soil, sediment and geotechnical logs
- Prepare lithological logs
- Interpret dating, isotopic, and/or tracer studies
- Plan and evaluate remediation and restoration programs
- Identify geological structures, lineaments, or fracture systems from surface or remote imagery
- Select, construct, and interpret maps, cross-sections, and other data for field investigations
- Design, apply, and interpret analytical or numerical models

◆◆◆◆◆

**GEOCHEMISTRY**

- Evaluate geochemical data and/or construct geochemical models related to rocks and minerals
- Establish analytical objectives and methods
- Make determinations of sorption/desorption reactions based upon aquifer mineralogy
- Assess the behavior of dissolved phase and free phase contaminant flow in groundwater and surface water systems
- Assess salt water intrusion

◆◆◆◆◆

- Design, implement and interpret fate and transport models
- Identify minerals and rocks based on their chemical properties and constituents

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**MINERALOGY/PETROLOGY**

- Identify minerals and their physiochemical properties
- Identify mineral assemblages
- Determine probable genesis and sequence of mineral assemblages
- Predict subsurface mineral characteristics on the basis of exposures and drill holes
- Identify and classify major rock types
- Determine physical properties of rocks
- Determine geotechnical properties of rocks
- Determine types, effects, and/or degrees of rock and mineral alteration
- Determine suites of rock types
- Characterize mineral assemblages and probable genesis
- Plan and conduct mineralogic or petrologic investigations
- Identify minerals and rocks and their characteristics
- Identify and interpret rock and mineral sequences, associations, and genesis

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**STRATIGRAPHY/HISTORICAL GEOLOGY**

- Plan and conduct sedimentologic, and stratigraphic investigations
- Identify and interpret sedimentary structures depositional environments, and sediment provenance
- Identify and interpret sediment or rock sequences, positions, and ages
- Establish relative position of rock units
- Determine relative and absolute ages of rocks
- Interpret depositional environments and structures and evaluate post-depositional changes
- Perform facies analyses
- Correlate rock units
- Interpret geologic history
- Determine and establish basis for stratigraphic classification and nomenclature
- Establish stratigraphic correlations and interpret rock sequences, positions, and ages
- Establish provenance of sedimentary deposits

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**STRUCTURAL GEOLOGY**

- Plan and conduct structural and tectonic investigations

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- Develop deformational history through structural analyses
- Identify structural features and their interrelationships
- Determine orientation of structural features
- Map structural features
- Perform qualitative and quantitative structural analyses
- Correlate separated structural features
- Develop and interpret tectonic history through structural analyses
- Map, interpret, and monitor fault movement
- Identify geological structures, lineaments, fracture systems or other features from surface or subsurface mapping or remote imagery

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**PALEONTOLOGY**

- Plan and conduct paleontologic investigations
- Correlate rocks biostratigraphically
- Identify fossils and fossil assemblages and make paleontological interpretations for age and paleoecological interpretations

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**GEOMORPHOLOGY**

- Evaluate geomorphic processes and development of landforms and soils
- Identify and classify landforms
- Plan and conduct geomorphic investigations
- Determine geomorphic processes and development of landforms and soils
- Determine absolute or relative age relationships of landforms and soils
- Identify potential hazardous geomorphological conditions
- Identify flood plain extent
- Determine high water (i.e. flood) levels
- Evaluate stream or shoreline erosion and transport processes
- Evaluate regional geomorphology

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**GEOPHYSICS**

- Select methods of geophysical investigations
- Perform geophysical investigations in the field
- Perform geological interpretation of geophysical data
- Design, implement, and interpret data from surface or subsurface geophysical programs including data from borehole geophysical programs
- Identify potentially hazardous geological conditions by using geophysical techniques

# Labor Statistics

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	U. S. Bureau of Labor	OR Employ. Dept
2024 Median Salary	\$99,240/year (~\$48/hr.)	\$105,020 (~\$47/hr.)
Entry Level Education	Bachelor's Degree	Bachelor's Degree
# Jobs 2024	25,100	476
Job Outlook 2024-2034	3% Growth (as fast as avg)	18.9% Growth
Employment Change 2024-2034	800	48 per year

How to Become a Professional Geologist: Typically need a Bachelor's degree to enter the profession. Some positions require a graduate degree. **Most geologists eventually need a state-issued registration.**

# US Bureau of Labor Statistics – Occupational Outlook Handbook (available online)

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## **LARGEST SECTORS OF EMPLOYMENT FOR GEOSCIENTISTS (2024 data)**

Architectural, engineering, and related consulting services	44%
Management, scientific, and technical consulting services	18%
Mining, quarrying, and oil and gas extraction	13%
Federal government	13%
State government (excluding positions in education)	12%

# Some Career Resources

Talk with the head of your degree program and your counselors. Attend career fairs and other events that expose you to alumni, employers, etc. Consider summer internships.

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Geoscience Resources on Opportunities in the Workforce (GROW)

- <https://www.grow-geocareers.com/>

Association of Environmental & Engineering Geologists (AEG) **FREE student membership**

- <https://www.aegweb.org/students> and <https://www.aegweb.org/job-board>

American Geosciences Institute (AGI)

- <https://www.americangeosciences.org/workforce/career-resources>

Geological Society of America (GSA) **\$25 student membership**

- [https://www.geosociety.org/GSA/Education\\_Careers/GeoCareers/GSA/careers/home.aspx](https://www.geosociety.org/GSA/Education_Careers/GeoCareers/GSA/careers/home.aspx)

American Institute of Professional Geologists (AIPG) **FREE student membership**

- <https://aipg.org/page/CareerCenter>

State of Oregon (ODOT, DOGAMI, ODEQ, WRD, ODF, OHA-Drinking Water)

- <https://www.oregon.gov/jobs/Pages/index.aspx>



Photo credit:  
Marli Miller, UO



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**call:** 503.566.2837

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**e-mail:** [osbge.info@bgelab.oregon.gov](mailto:osbge.info@bgelab.oregon.gov)

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**exam resources:** [www.asbog.org](http://www.asbog.org)



Photo credit: Chanel Dvorak

# Questions?