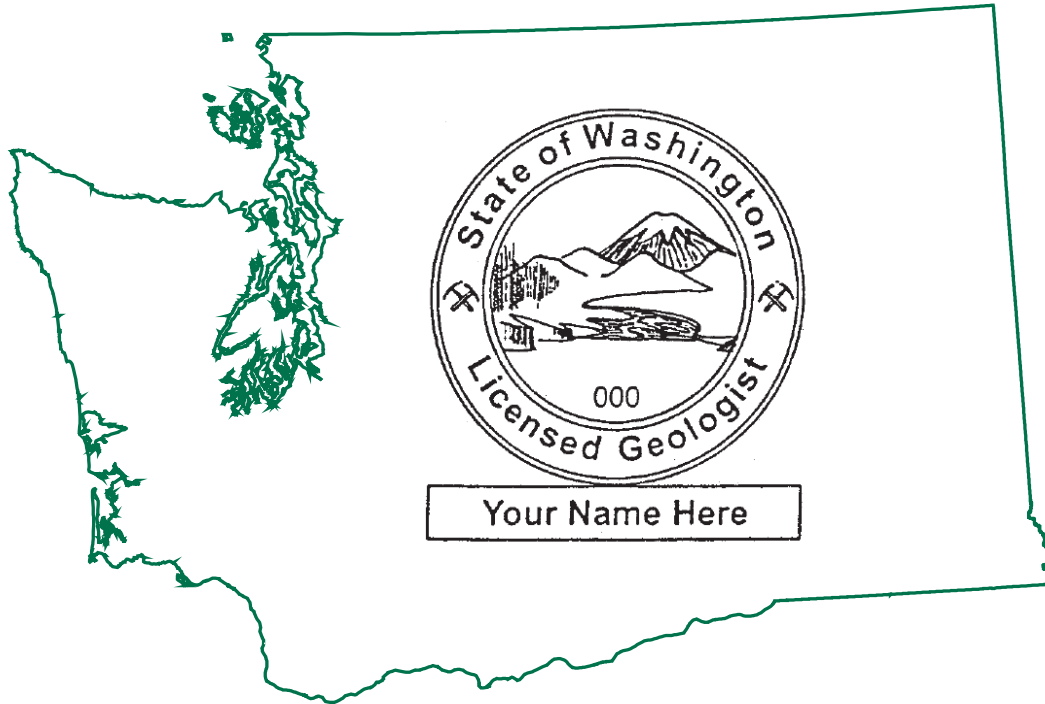


Geologist Licensing in Washington State

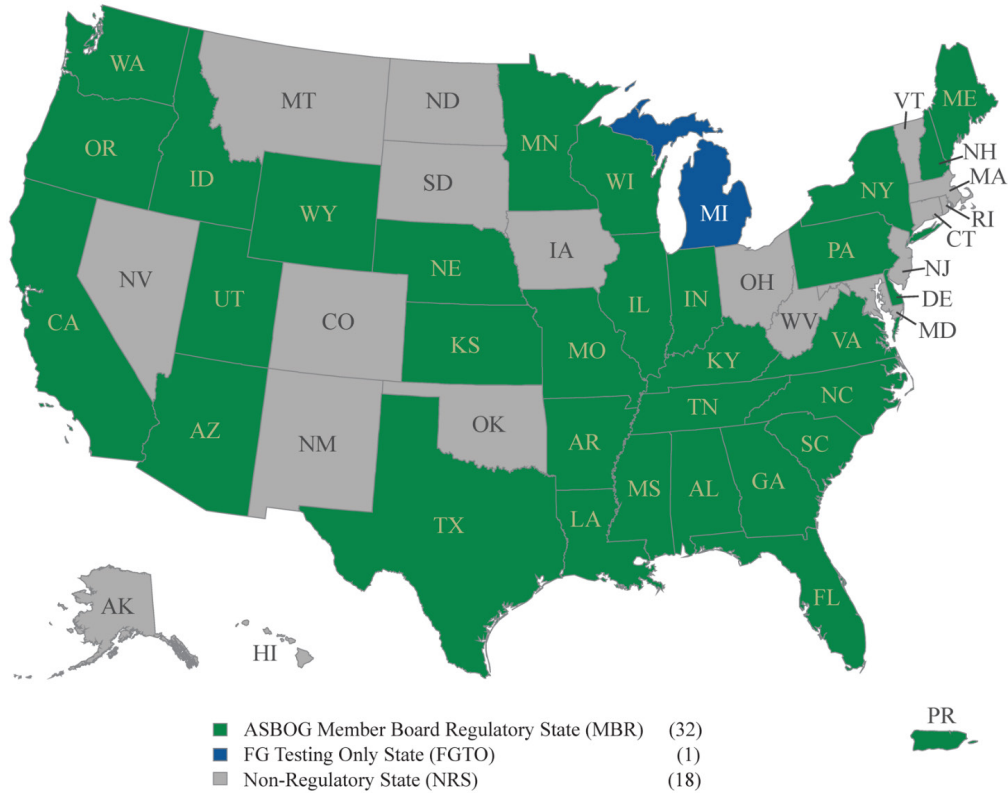


<http://www.dol.wa.gov/business/geologist/>

Bob Mitchell – rjmitch@wwu.edu

32 States Require Geologist Licensure

United States & Puerto Rico





Since 2001, Washington State requires that all practicing geologists have a professional license

[18.220 RCW](#) & [308-15 WAC](#)

[WAC](#) = Washington Administrative Code (policy interpretations of the law)

[RCW](#) = Revised Code of Washington (laws)

Why is licensure necessary in WA?

To ensure the protection of the environment and the public's health, safety, and welfare.



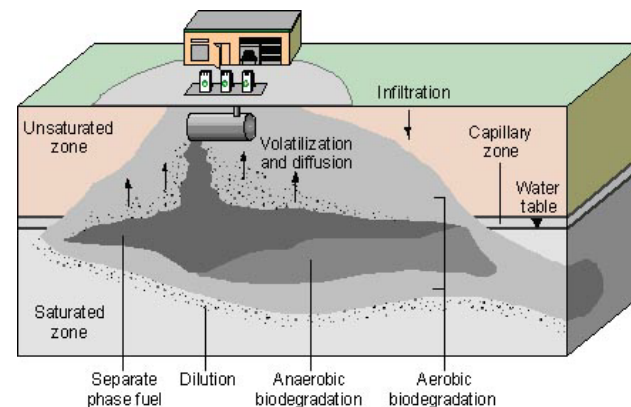
Landslide: Kelso, WA



Liquefaction: 2001 Nisqually Earthquake



Rock Fall: Hwy 2, WA



Groundwater Contamination

Who needs to be licensed?

Anybody who practices geology or represents that they can perform the work of a geologist (e.g., uses verbal claim, sign, advertisement, letterhead, business card)



WA Geologist Licensing Exemptions

- Working under a licensed geologist's supervision (e.g., your first job)
- US Federal Government (e.g., USGS, EPA, US Forest Service)
- Energy & minerals exploration
- Academics (research and teaching)

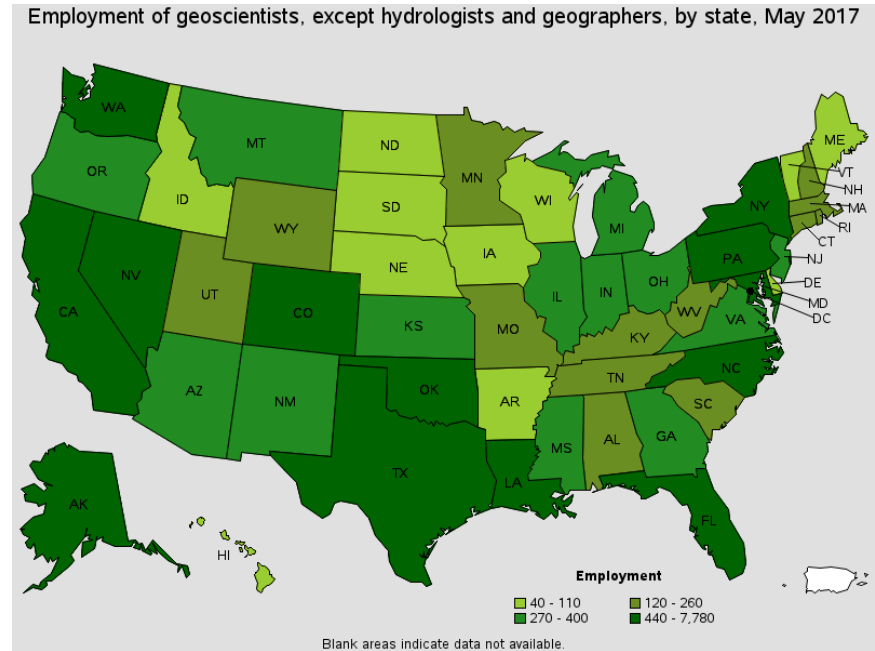
Why pursue licensure?

- Because it is the law! [18.220 RCW](#) & [308-15 WAC](#)
- More job opportunities and professional growth potential.
- Portable to 32 states + Puerto Rico (it is the law in most western states, e.g., California, Idaho, Oregon and there are reciprocity agreements between states).

A better question is why not pursue licensure?

US Bureau of Labor Statistics

Where are geologists working?



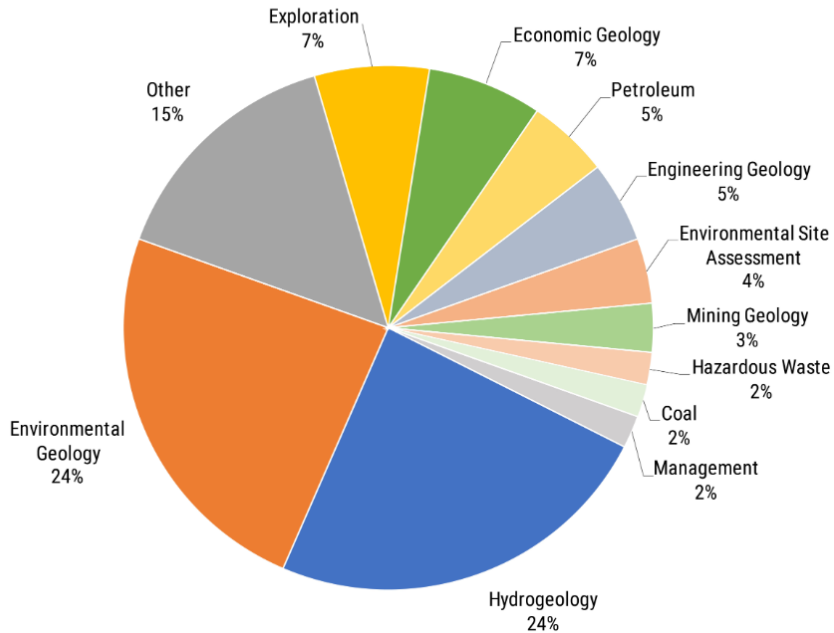
<https://www.bls.gov/oes/current/oes192042.htm#st>

States with the highest employment level in Geoscientists, Except Hydrologists and Geographers: May 2022

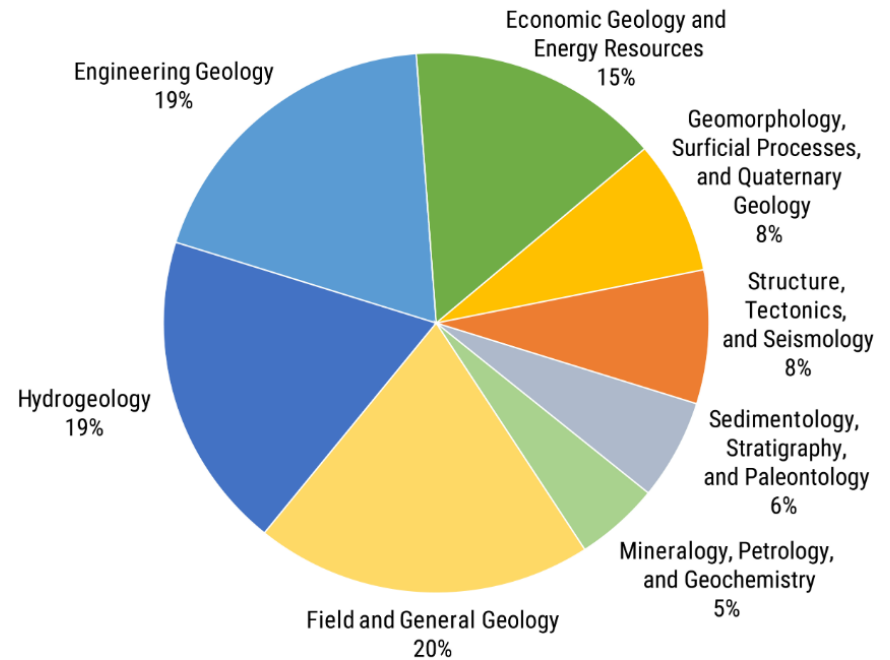
State	Employment (1)	Employment per thousand jobs	Location quotient (9)	Hourly mean wage	Annual mean wage (2)
Texas	5,440	0.42	2.45	\$ 70.00	\$ 145,600
California	3,570	0.20	1.19	\$ 47.33	\$ 98,440
Colorado	2,260	0.82	4.78	\$ 57.02	\$ 118,600
✓ Washington	900	0.26	1.55	\$ 48.72	\$ 101,340
New York	780	0.09	0.50	\$ 40.57	\$ 84,380

In what discipline areas are geologists working?

Areas of expertise for geologists who are members of the American Institute of Professional Geologists



**ASBOG® Task Analysis Survey
Practice of Geology Blueprint - Domain Percentages**



How do geologists make a living in 2019?

<https://www.americangeosciences.org/geoscience-currents/how-do-geologists-make-living-2019>

Visit the WA State Geologist Licensing web site for information.

The screenshot shows the Washington State Department of Licensing website. At the top left is the logo with the text "WASHINGTON STATE DEPARTMENT OF LICENSING". To the right are links for "Moving to Washington", "License eXpress", "Language" (with a dropdown arrow), and "Contact". Below these is a search bar. A green navigation bar contains links for "Driver Licenses & Permits", "ID Cards", "Vehicles & Boats", "Professional Licenses" (highlighted with a green underline), and "Appointments & Locations". The main content area has a blue header with the word "Geologists" in white. Below this is a sub-header: "Explore all of the resources you need for getting and renewing your license, fees, forms, and staying up to date." A breadcrumb trail reads "Home > Professional Licenses > Geologists". A section titled "How can we help you today?" features six blue buttons: "Apply for a geologist license", "Apply for a specialty license", "Renew or update your license", "License fees", "News & updates", and "Forms". Below this is a section titled "Additional services" with four columns. Each column has a bold heading and a short paragraph of text.

WASHINGTON STATE DEPARTMENT OF LICENSING

[Moving to Washington](#) | [License eXpress](#) | [Language](#) | [Contact](#)

Driver Licenses & Permits | ID Cards | Vehicles & Boats | **Professional Licenses** | Appointments & Locations

Geologists

Explore all of the resources you need for getting and renewing your license, fees, forms, and staying up to date.

[Home](#) > [Professional Licenses](#) > Geologists

How can we help you today?

- Apply for a geologist license
- Apply for a specialty license
- Renew or update your license
- License fees
- News & updates
- Forms

Additional services

<p><u>Exams: Geologists</u></p> <p>Learn more about the exams required to get your geologist license.</p>	<p><u>Laws and rules: Geologists</u></p> <p>Read the current laws and rules about geologists, view rulemaking activity, and listen to public hearing recordings.</p>	<p><u>Resources and publications: Geologists</u></p> <p>Find links to national and regional boards for geologists, and read publications on licensing and preparing reports.</p>	<p><u>Geologist Licensing Board</u></p> <p>Find out who makes up the board and view meeting dates, agendas, and minutes.</p>
<p><u>Frequently asked questions: Geologists</u></p> <p>Get answers to frequently asked questions about geologist licensing, specialty endorsements, and seals.</p>	<p><u>Stamp requirements: Geologists</u></p> <p>Learn about geologist stamp/seal approved designs, specialty stamps, and how to use your stamp.</p>	<p><u>Education requirements: Geologists</u></p> <p>Find out what degrees and courses meet the education requirements for getting a geologist license.</p>	

<https://www.dol.wa.gov/professional-licenses/geologists>

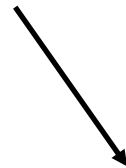
Steps to Geologist Licensure

Meet WA State's educational requirements and pass ASBOG's Fundamentals of Geology Exam



Geologist in Training (GIT)

Have a geology degree and acquire 5-years of working experience and pass ASBOG's Practice of Geology Exam



Professional Geologist (PG)

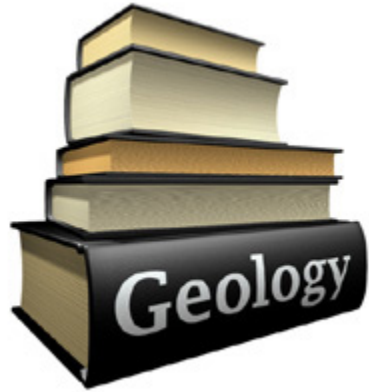
Document 5 years of working experience in a specialty and pass the Specialty Exam



Licensed Engineering Geologist (LEG) or Hydrogeologist (LHG)

Steps to Geologist Licensure

Meet WA States' geology educational requirements



WA State's Educational Requirements

(2) Education. You have graduated from an accredited college or university with:

(a) A degree in the geological sciences, or a related degree approved by the board, and have either:

(i) 24-semester or 36-quarter hours of upper division geology courses that includes 14 semester or 21 quarter credits (nonrepeatable) from the following list:

- Earth Materials (combination of mineralogy and petrology)
- Economic Geology
- Engineering Geology
- Field Camp
- Geochemistry
- Geomorphology
- Geophysics
- Hydrogeology
- Mineralogy
- Petrology
- Sedimentology
- Stratigraphy
- Structural Geology

WA State's Educational Requirements

(ii) Or

Successfully completed coursework that is determined by the board to be educationally equivalent in content and rigor to the classes listed above. You must submit documentation that demonstrates your coursework is equivalent to the requirements in (a)(i) of this subsection acceptable to the board. Examples of documentation include course syllabi, copies of study materials, and the tables of contents of books used in the course.

WA State's Educational Requirements

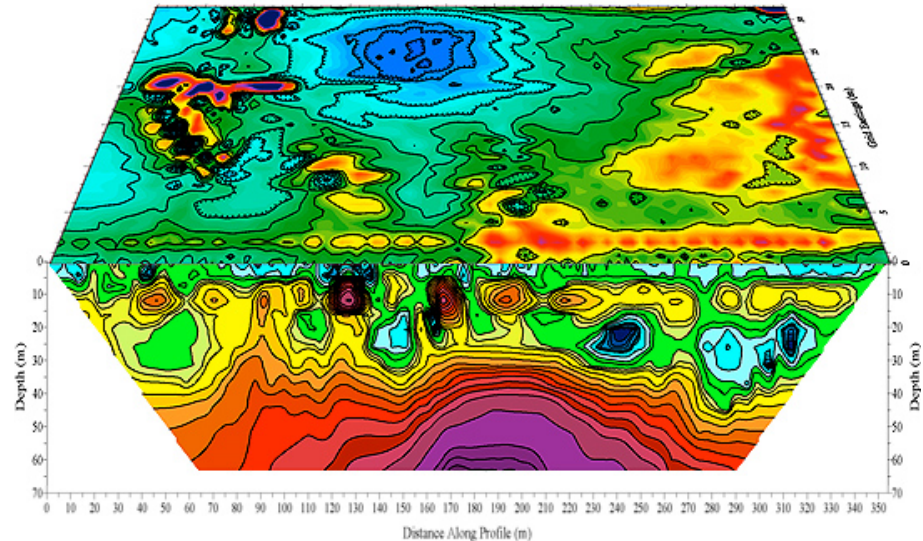
You meet the education requirements if you receive a B.S. Degree in Geology at WWU.

B.S. Upper Division Core		Credits	
306	Mineralogy	4	} 21 credits
310	Geomorphology	5	
318	Structural Geology	4	
352	Geophysics	4	
406	Petrology	4	
409	Field Methods and Theory	6	
410	Field Mapping	6	
415	Stratigraphy and Sedimentation	4	
		37	

If you choose the B.S. in Geophysics degree plan, make sure you take enough upper division geology courses (300 and above) to accumulate 36 credits and 21 of the credits must be from the requirement list.

21 quarter credits (nonrepeatable) from the following list:

- Earth Materials (combination of mineralogy and petrology)
- Economic Geology
- Engineering Geology
- Field Camp
- Geochemistry
- Geomorphology
- Geophysics
- Hydrogeology
- Mineralogy
- Petrology
- Sedimentology
- Stratigraphy
- Structural Geology



If you choose the B.A. in Geology degree plan, make sure you take enough upper division geology courses (300 and above) to accumulate 36 credits and 21 of the credits must be from the list.

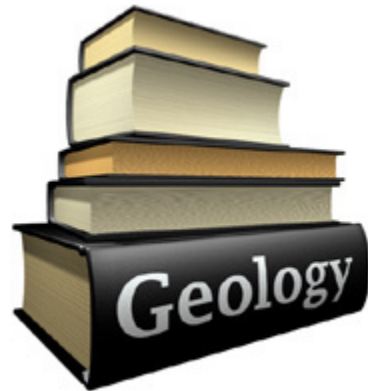
21 quarter credits (nonrepeatable) from the following list:

- Earth Materials (combination of mineralogy and petrology)
- Economic Geology
- Engineering Geology
- Field Camp
- Geochemistry
- Geomorphology
- Geophysics
- Hydrogeology
- Mineralogy
- Petrology
- Sedimentology
- Stratigraphy
- Structural Geology

Completed the requirements for this distinction, the
Bachelor of Arts
rights, privileges and honors
ident and the Secretary of the
affixed the seal of

Steps to Geologist Licensure

Meet WA States' educational geology requirements and pass ASBOG's Fundamentals of Geology (FG) Exam



National Association of State Boards of Geology

The State has adopted the National Association of State Boards of Geology ([ASBOG](#)) standardized exam as the Fundamentals of Geology Exam (FG)

WA State's Educational Requirements

You can take the ASBOG FG Exam without a degree if you have met the educational requirements.

If you want to take the ASBOG Fundamentals Exam before graduating, you must meet the educational requirements about three months in advance, because there is a 90-day administrative processing period.

For example, the spring ASBOG Fundamentals Exam is **March 24, 2024**, but the **application deadline is December 31, 2023**.

The application requires an official university transcript. Make sure your fall-quarter grades are recorded on your transcript before you have WWU send it the WA DOL.

<https://www.dol.wa.gov/professional-licenses/geologists/exams-geologists>

ASBOG FG Exam Application Procedures

The exam application procedures, due dates and exam dates can be found [here](#). Complete the **Geologist-in-Training Certificate Application**. You can mail your application or apply online.

It **costs \$135 to apply to the WA State DOL**, the \$135 application fee covers one attempt at the FG, one attempt at the PG and the first issuance of a license.

Once your application is approved, the Licensing Board will send you application materials for the ASBOG Fundamental Exam (it will **cost another fee \$275 to ASBOG** for the exam and fee for the computer-based testing site). Note, the application will come by email, so if you are out of town (e.g., field camp), make the proper arrangements because if you do not pay ASBOG you cannot take the exam. After payment has been received by ASBOG, you will receive an exam admission letter by email about one month before the exam date.

If you pass the FG exam, you will be a Geologist in Training (GIT). If you fail the FG Exam, you will be required to pay a reexam fee to DOL of \$88 and the exam fee to ASBOG.

New Geologist Licensing Fund!

Your fees will be subsidized if you are an enrolled undergraduate or graduate student at WWU. Due to the generosity of a donor, the Department has set up Geologist Licensing Exam Fund.

- If you PASS the ASBOG FG 100% of your application fees will be reimbursed.
- If you FAIL the ASBOG FG Exam 50% of your application fees will be reimbursed.

So, there are no excuses for not taking the ASBOG FG Exam as an enrolled student:

1. there are study materials in the department,
2. the testing location is convenient,
3. your fees will be subsidized, and
4. passing the FG exam will improve your job marketability because Washington State requires that practicing geologists be licensed.

Steps to Geologist Licensure



The State has adopted **ASBOG** exams to assess geology competency

140 multiple choice questions

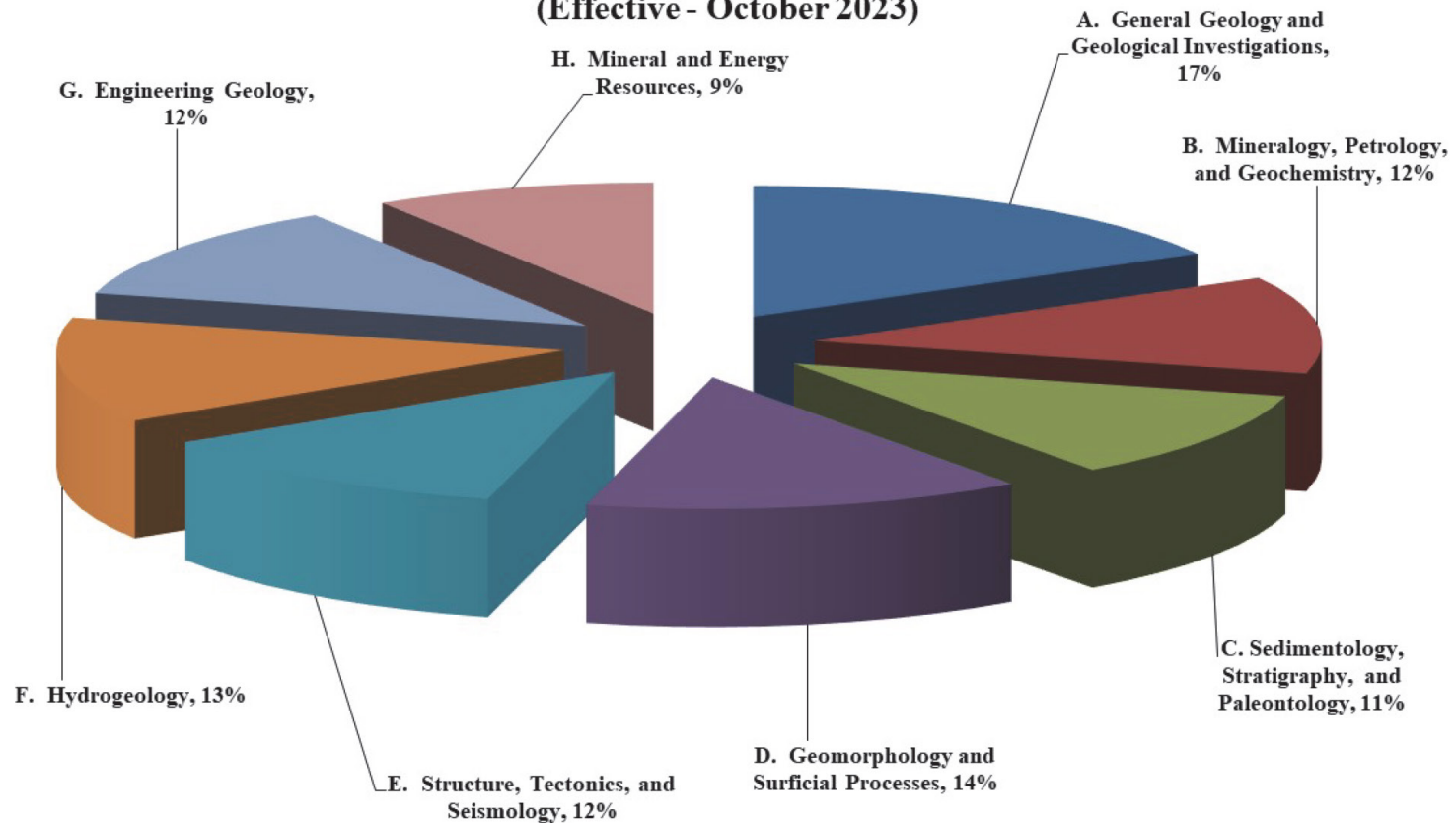


Computer-based testing as of 2023



The **ASBOG Fundamentals of Geology (FG) Exam** has 140 multiple choice questions in the categories below.

**Figure 17 - ASBOG® 2023 Task Analysis Survey
FG Test Blueprint - Domain Percentages
(Effective - October 2023)**



Washington State computer testing sites

- ✓ Bellingham
- Camas
- Fife
- Liberty Lake
- Mountlake Terrace
- Olympia
- Pasco
- Seattle
- Spokane
- Yakima

<https://www.isoqualitytesting.com/locations.aspx>

Western's Testing Center



<https://testingcenter.wvu.edu/>

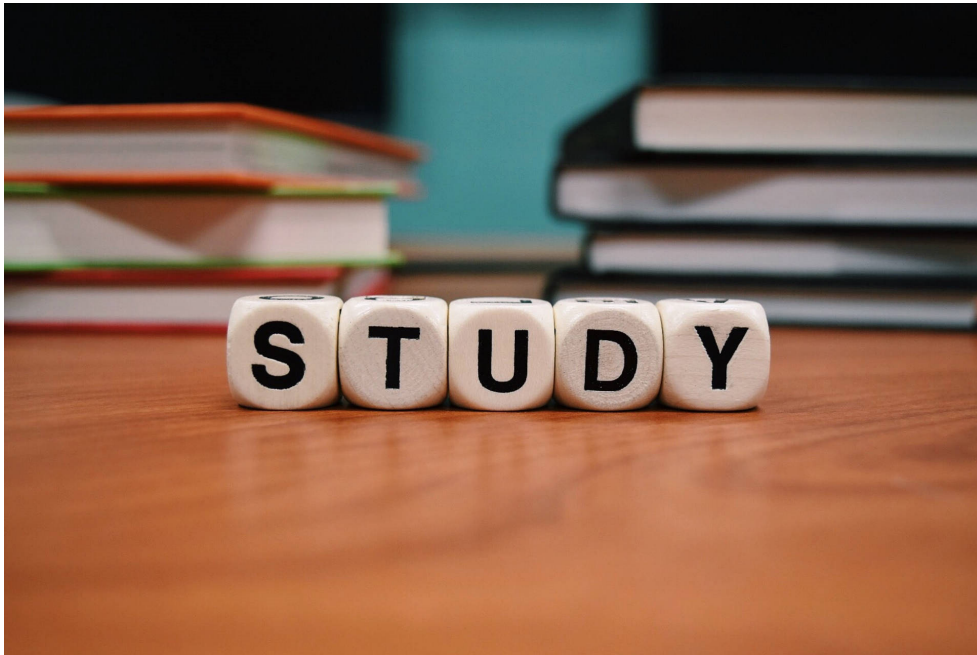
333 32nd Street – AC120

Bellingham, WA 98225

Note: Testing Center is located off-campus at 333 32nd Street – AC120

Parking Permits are required in the Testing Center parking lot (32G) from Monday through Friday.

How to prepare for the ASBOG FG Exam



GEOLOGY STUDY MANUAL

Review for

the National (ASBOG) Geology Licensing Exam

Published by

REG REVIEW, Inc.

37 Rosewell Road
Bedford, NH 03110

<http://regreveiw.com>

We have two hard copies of this in the Geology office.



CANDIDATE RESOURCES

- FAQs
- Examination Application Process
- Examination Schedule
- Examination Blueprint
- Candidate Study Material**
- Institution Codes 2020
- Cross Section Documents

LICENSEE RESOURCES

- Examination Score Request
- Tasks of a Geologist
- Academic Assessment
- CPAT Universities

MEMBER RESOURCES

- State Requirement Matrix
- Member Boards (clickable map)
- Affiliate Members
- International Members
- 2015 Task Analysis Summary
- Model Law (2017)
- Model Rules and Regulations
- Model Cooperative Agreement

ASBOG® RESOURCES

- ByLaws
- Past Executive Committees
- Service Awards
- Previous Meeting Locations
- Code of Conduct/Harassment
- Photo Policy



Examination Candidates... here are some useful resources for examination preparation

(use Ctrl+f to search)

- I. ASBOG® Candidate Handbook ...click
- II. Physical Geology (Open Textbook Library) ...click
- III. MIT Open Courseware (Geology Topics)...click
- IV. Basic Groundwater Hydrology- USGS WRI 2220 ...click
- V. Engineering Geology Field Manual (Bureau of Reclamation) - Volume I & II...click
- VI. Rock Mechanics (Rocscience (Evert Hoek, Ph.D.)) ...click
- VII. Visible Geology Web Site...click
- VIII. Rock and Mineral Jeopardy ...click
- IX. AGI Data Sheets 5th Edition (\$for purchase)...click
- X. AGI GOLI Webinar's ...click

Last Updated: September 12, 2020

<https://www.asbog.org/candidates/candidates.html>

Join the WWU AEG Student Chapter

ASSOCIATION OF ENVIRONMENTAL &
ENGINEERING GEOLOGISTS

WWU GEOLOGY DEPARTMENT - STUDENT CHAPTER



Join the WWU AEG Student Chapter

Professional Development (work on your exit strategy!)

- Free AEG Membership
- Networking at AEG Meetings in Seattle
- **ASBOG FG Exam Study Groups**
- Resume/Cover Letter Reviews
- Grad School Information
- Case study presentations from practicing profess
- Internship/Scholarship Applications

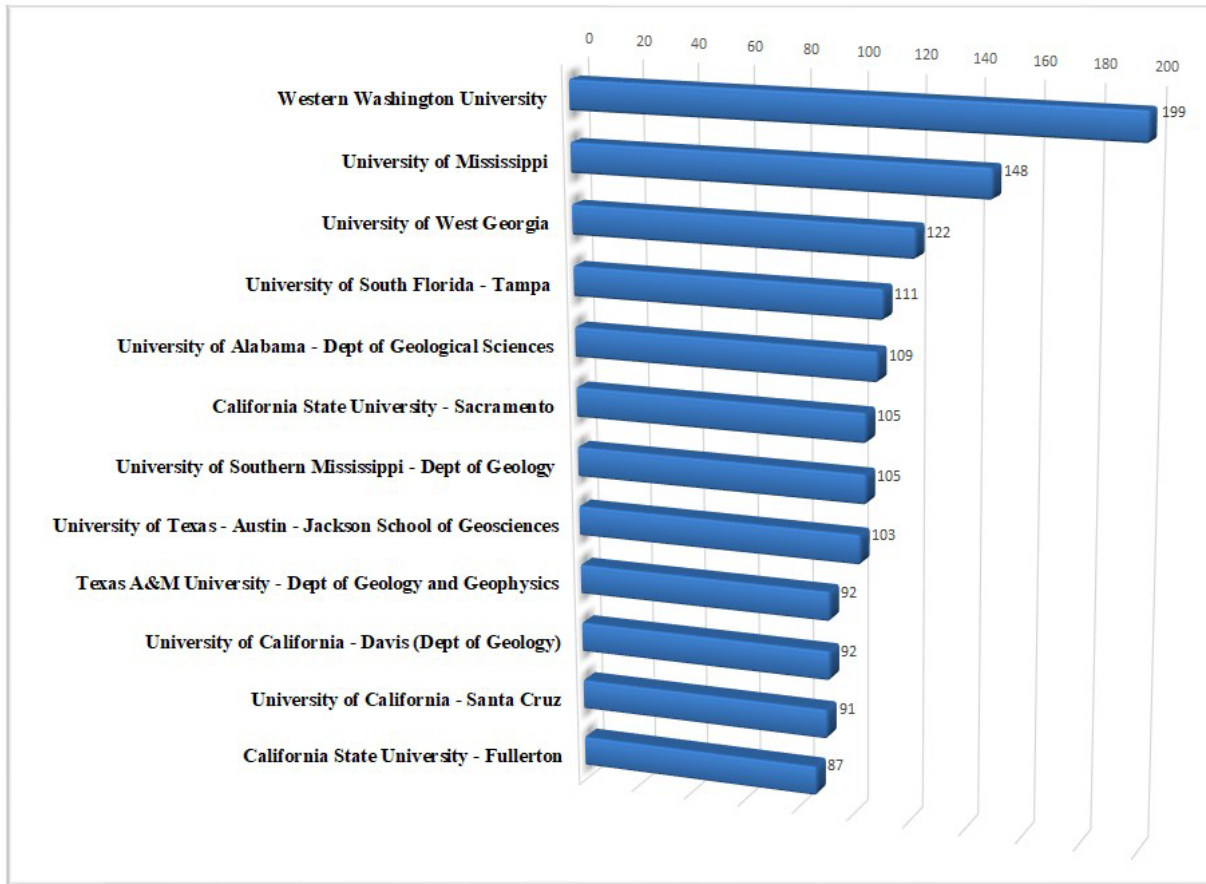
ASSOCIATION OF ENVIRONMENTAL &
ENGINEERING GEOLOGISTS

<https://www.aegweb.org/students>

WWU GEOLOGY DEPARTMENT - STUDENT CHAPTER



Western is top in the nation for number of people taking the FG Exam



Number of people that have taken the ASBOG between 1992 and 2017. Note Washington started administering the exam in 2002.

Since 2008 about 41% of WWU students and alums have taken the ASBOG FG and the passing rate is about 78% (about 10% than the national average).



Steps to Geologist Licensure

Meet WA State's educational requirements and pass ASBOG's Fundamentals of Geology Exam



Geologist in Training (GIT)

Have a geology degree and **acquire 5-years of working experience** and pass ASBOG's Practice of Geology Exam



WA Geology Experience Requirements

You must accumulate 5 years of professional geological practice after receipt of a geoscience degree and meet the educational requirements.

- experience earned prior to receiving a degree will not be considered (e.g., summer internships)
- at least 3-years of the 5 must be under the supervision of licensed geologist or others who, in the opinion of the board, are qualified to be in responsible charge
- part-time experience will be prorated
- A graduate degree can be counted as a maximum of two years of practicing experience.
- Geological research or teaching at the university or college level is credited year for year if, in the judgment of the board, it is comparable to experience obtained in the practice of geology.

Steps to Geologist Licensure

Meet WA State's educational requirements and pass ASBOG's Fundamentals of Geology Exam



Geologist in Training (GIT)

Have a geology degree and acquire 5-years of working experience and **pass ASBOG's Practice of Geology Exam**



National Association of State Boards of Geology

140 multiple choice questions



Computer-based testing as of 2023



WA Specialty Professional License Options

Hydrogeologist



Your Name Here

Engineering Geologist



Your Name Here

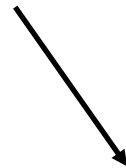
Steps to Geologist Licensure

Meet WA State's educational requirements and pass ASBOG's Fundamentals of Geology Exam



Geologist in Training (GIT)

Have a geology degree and acquire 5-years of working experience and pass ASBOG's Practice of Geology Exam



Professional Geologist (PG)

Document 5 years of working experience in a specialty and pass the Specialty Exam



Licensed Engineering Geologist (LEG) or Hydrogeologist (LHG)

WA Specialty Education Requirements

[WAC 308-15-055](#)

Completed advanced study in the specialty

- 18 semester/27 quarter hours of specialty course work, OR
- 270 hours of seminars or workshops, OR
- 540 hours of on-the-job training under the supervision of a licensed specialist or others who in the opinion of the board, are qualified to be in responsible charge of specialty work, OR
- or a combination of the above

WA Specialty Education Requirements

[WAC 308-15-055](#)

Complete 5 years of professional specialty practice **after** completing the advanced education requirements

- 3 years under the supervision of licensed specialist or others who in the opinion of the board are qualified to be in responsible charge
- Part-time experience will be prorated

WA Specialty Education Requirements

[WAC 308-15-055](#)



Alternative experience credit

- Each year of graduate study counts as one year of training up to a maximum of two years
- Geological research or teaching at the university or college level is credited year for year if, in the judgment of the board, it is comparable to experience obtained in the practice of a specialty

Robert Mitchell x Dr. Robert Mitchell | College of S x +

Not secure | kula.geol.wvu.edu/rjmitch/index.html

Apps Universal Login Google Gmail OWA NOAA Weather Bob Mitchell CEDAR Other bookmarks



Robert J. Mitchell, Ph.D., L.H.G.
Professor, [Geology Department](#)
516 High Street
Bellingham, WA 98225-9080
360-650-3591; FAX 360-650-7302
robert.mitchell@wvu.edu

[Graduate Student Information](#)
[Teaching](#)
[Transfer Student Information](#)
[Geologists Licensing Information](#)

For future reference see my web site

Google

<http://kula.geol.wvu.edu/rjmitch/index.html>