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Professional Geologist Licensure Requirements: Tips for the Exam and How Certification will Help Your Career

Laurie Racca, PG, Senior Registrar, California Board for Professional Engineers, Land Surveyors and Geologists
Jazzy Graham-Davis, GIT, Portland State University
Shanna Schmitt, PG, CPG, Minnesota Pollution Control Agency (MPCA)

THE GEOLOGICAL SOCIETY OF AMERICA®

The Geological Society of America (GSA) provides geoscientists with accessible, approachable events, high-impact publications, and inspiring programs that build community, advance our science, and drive careers to fulfilling new heights.

www.geosociety.org

Let’s make this event respectful and inclusive!

SHOW RESPECT

- Keep questions concise and on topic.
- Be considerate and listen with an open mind.
- Avoid saying or doing anything that is or is likely to be perceived as harassment or bullying.

BE INCLUSIVE

- Demonstrate that you welcome a diversity of individuals and their identities.
- Show that you value differing perspectives.
- Avoid exclusionary comments and behaviors based on any identity-based factors.

SPEAK UP AND ACT RESPONSIBLY

- Report concerns to ethics@geosociety.org or (720) 507-7523.
- Comply with GSA’s Events Code of Conduct.

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ASBOG®

AGU ADVANCING EARTH AND SPACE SCIENCE

AGI american geosciences institute
connecting earth, science, and people

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GSA Upcoming Deadlines

15 Mary	**Expanding Representation in the Geosciences (ERG) Scholarship**
26 May	**GSA/ZEISS Research Grant - For Innovative Microscopy**
28 May	**On To the Future (OTF) Mentoring and Award Program**
15 June	**Scientists in Parks Winter Opportunities**

Section Meeting Programs

- Career Workshop
- Roy J. Shlemon Mentor Program in Applied GeoScience
- John Mann Mentors in Applied Hydrogeology

18-20 April	South Central/North Central Section Meeting
12-14 May	Cordilleran Section Meeting

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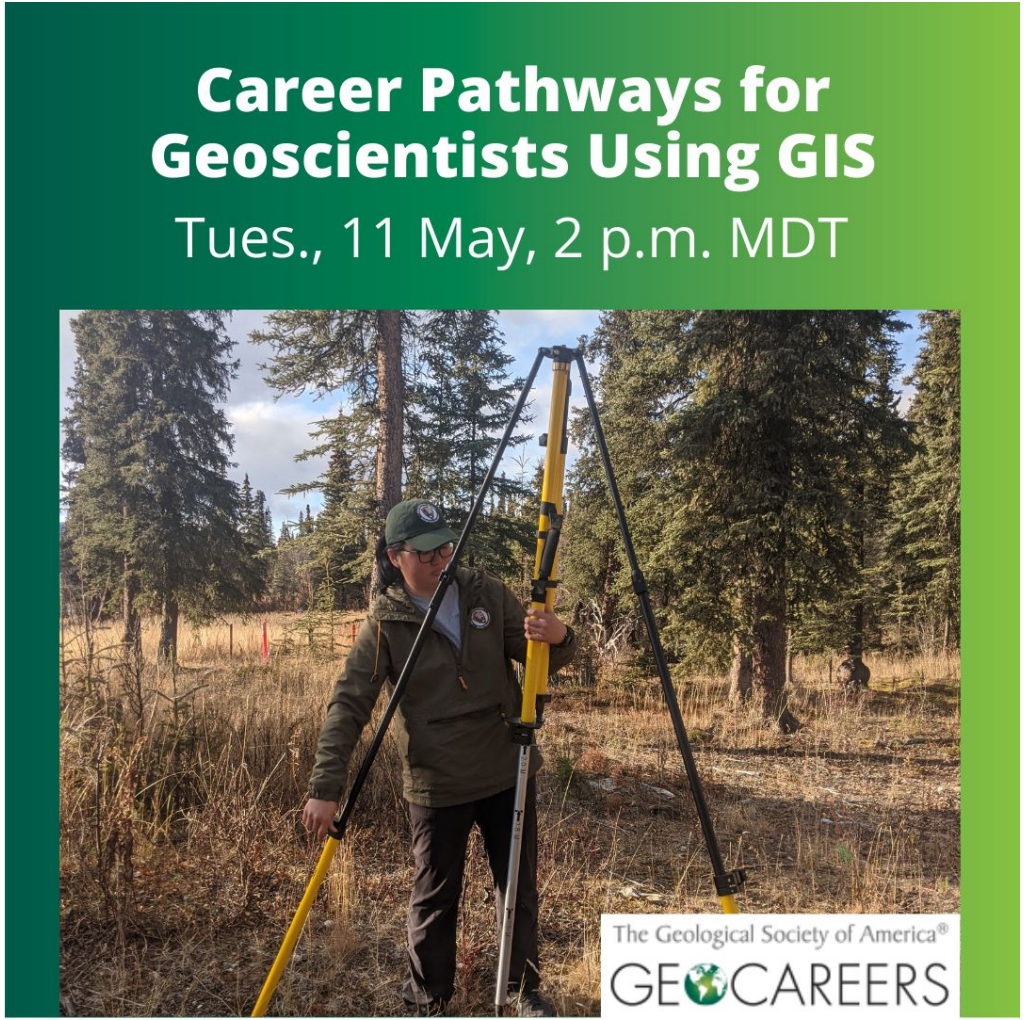
GEOCAREERS

GeoCareers Webinar

Join geographer and GIS educator Joseph Kerski as we examine why geotechnologies such as GIS, web mapping, remote sensing, GNSS-GPS, and related tools are important to society, science, and your own career path.

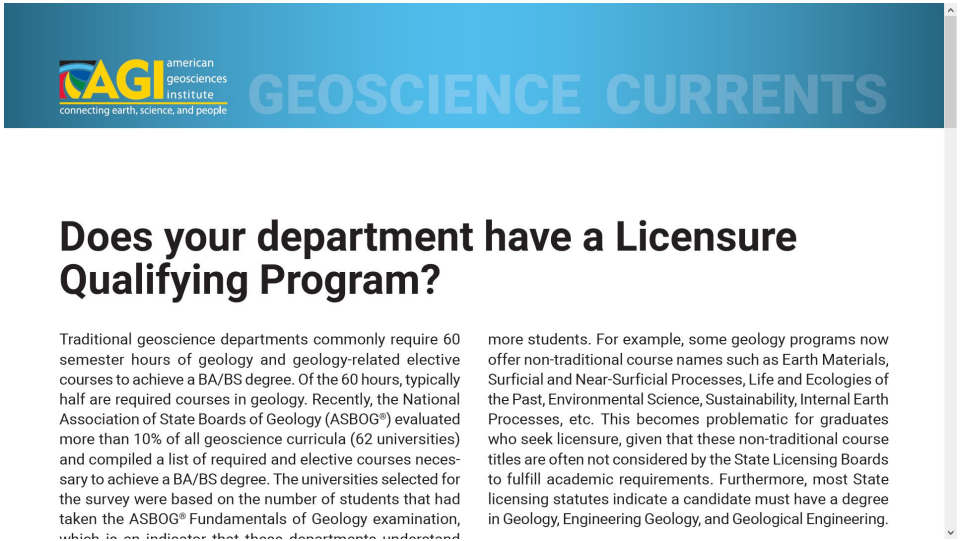
Register

https://register.gotowebinar.com/register/1280876484498855439



American Geosciences Institute Resources

- https://www.americangeosciences.org/geoscience-currents/does-your-department-have-licensure-qualifying-program
- https://www.americangeosciences.org/geoscience-currents/geologist-training-certification-united-states-2019
- An AGI webinar on Licensure - https://www.youtube.com/watch?v=T3nidtjk8gA



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GEOSCIENCE CURRENTS

Does your department have a Licensure Qualifying Program?

Traditional geoscience departments commonly require 60 semester hours of geology and geology-related elective courses to achieve a BA/BS degree. Of the 60 hours, typically half are required courses in geology. Recently, the National Association of State Boards of Geology (ASBOG®) evaluated more than 10% of all geoscience curricula (62 universities) and compiled a list of required and elective courses necessary to achieve a BA/BS degree. The universities selected for the survey were based on the number of students that had taken the ASBOG® Fundamentals of Geology examination, which is an indicator that these departments understand more students. For example, some geology programs now offer non-traditional course names such as Earth Materials, Surficial and Near-Surficial Processes, Life and Ecologies of the Past, Environmental Science, Sustainability, Internal Earth Processes, etc. This becomes problematic for graduates who seek licensure, given that these non-traditional course titles are often not considered by the State Licensing Boards to fulfill academic requirements. Furthermore, most State licensing statutes indicate a candidate must have a degree in Geology, Engineering Geology, and Geological Engineering.

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GEOSCIENCE CURRENT

Geologist-In-Training Certification in the United States, 2019

Geologist-In-Training (GIT) certification is formal recognition that a person has passed the ASBOG® Fundamentals of Geology (FG) examination and also met specific education requirements. GIT certification is required in some states and optional in others; and it demonstrates a level of technical competence to potential employers. The GIT certification is one step along the pathway towards professional geologist licensure during the time when the individual is gaining the required amount of work experience under the supervision

"FG examination – passed" accompanied with "eligib licensure pending additional work experience" if addi professional experience is needed to qualify to take tl examination. If all education and work experience ar but the PG examination has not been taken, "eligib licensure" will be stated. Additionally, in states that c offer a GIT certificate, some geoscientists elect to us as an informal title if the state-specific criteria for h education and/or work experience requirements have

8.50 x 11.00 in

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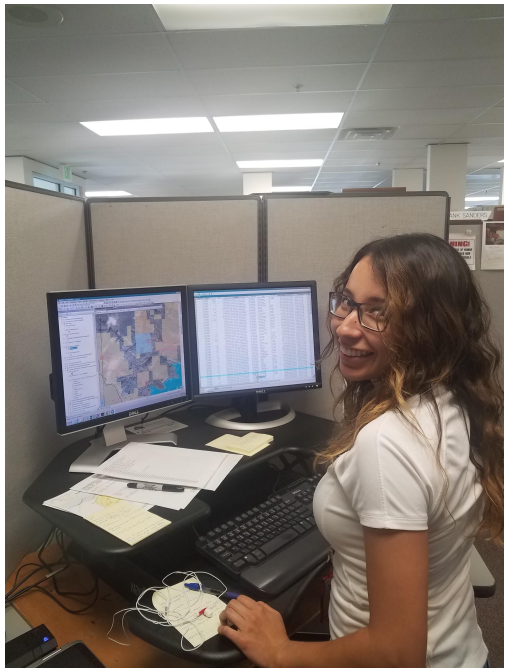
Webinar Format



- 1 hour
- Q&A - use the questions box in your control panel to ask a question
- Short survey afterwards

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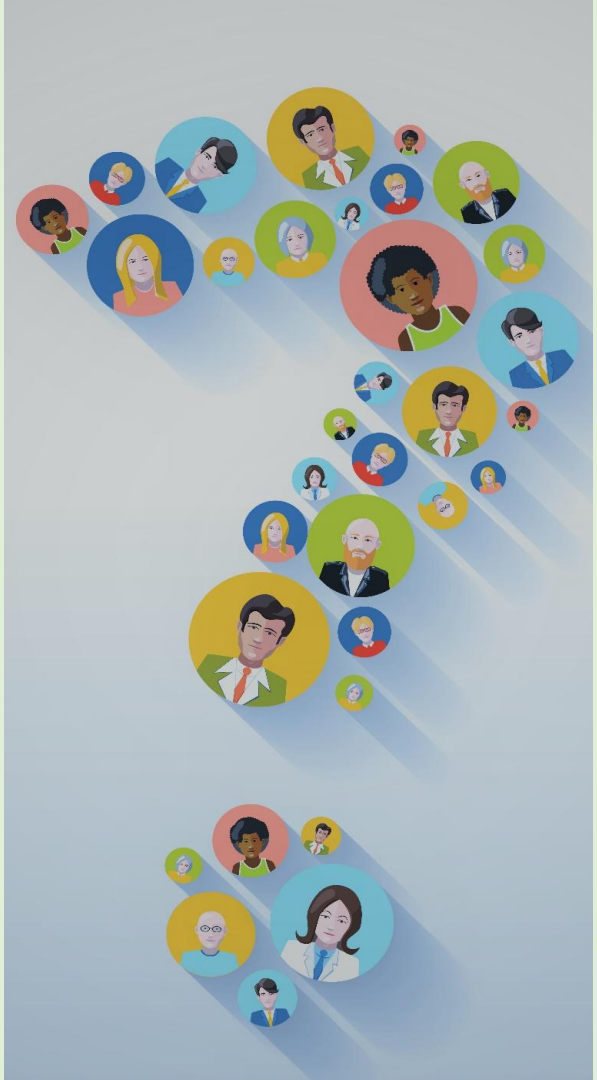
Professional Geologist Licensure Requirements

An Introduction to State Licensing of Geologists



Objectives for Today

The Basics (PG and GIT)

- Terminology
- Why is a license important?
- Qualification Requirements
- Geology Licensing and Careers

Important Terms

- **Registration** is the creation of a list (e.g. students in a class, members of a club).
- **Certification** is the comparison of something to an established standard (e.g. a college diploma).
- **Licensure** is the government's permission for you to do something (e.g. drive a car).

What is a “Licensed Professional”?

License

- formal permission from a governmental or other constituted authority to do something, as to carry on some business or profession.

- a certificate, tag, plate, etc., giving proof of such permission; official permit: *a driver's license.*


BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

This is to Certify that Pursuant To the Provisions of Chapter 12.5, Division 3 of the Business and Professions Code

Laurie Teresa Racca

IS DULY LICENSED AS A

Professional Geologist

In the State of California, and is Entitled to all the Rights and Privileges Conferred in Said Code

WITNESS OUR HAND AND SEAL

Certificate No. GEO 6980

This 6th day of December, 1993, at Sacramento, California.

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

Richard B. Moore, P.L.S. – Executive Officer

Coby King – Board President

Professional

- Person formally certified as belonging to a specific profession by virtue of having completed a required course of studies and/or practice. **And whose competence can usually be measured against an established set of standards.**

Purpose of Licensure

- **protect the health, safety, and welfare of the public.** This includes:
  - helping to ensure resiliency of infrastructure,
  - a sustainable economy,
  - the responsible use of natural resources,
  - and environmental protection.
- establishing standards for minimum competency in a profession

Careers and Licensing

- Not all careers require licensure
- **Required by law for many careers**
- Licensure Increases Career Opportunities and Flexibility
- Credibility
- **Demonstrates a commitment to Professional Responsibility**
- Financial Incentives

Qualification Requirements

- Licensure qualifications are established by law in each jurisdiction.
- Typical requirements include:
  - **Education**
    - Typically bachelor's degree or
    - minimum specified coursework (sometimes specific classes are required)
  - **Experience**
    - Generally 3 to 5 years after education
  - **Exams**
    - ASBOG Fundamentals of Geology
    - ASBOG Practice of Geology
    - Any applicable state specific license exam

ASBOG® National Association of State Boards of Geology

- What is ASBOG®?
  - **The National Association of State Boards of Geology or ASBOG®** is a not-for-profit organization that serves as a connective link for the individual state geologic licensing boards.
  - ASBOG® is a volunteer organization. Working geologists volunteer to write the exams.
- What does that mean?
  - ASBOG® is the forum where the states get together and write a common national examination. Think of it like a professional society for state license boards.
  - ASBOG® does not license geologists.
  - ASBOG® is an examination vendor.

Geology License Exams

ASBOG®Fundamentals of Geology (FG) Exam
Knowledge Based
(4 hours, 140 questions)

National Exam-Intended to test bachelor's level knowledge.

National Exam-Intended to test applied professional tasks.

ASBOG®Practice of Geology (PG) Exam
Knowledge/Experience Based
General – Not State Specific
(4 hours, 110 questions)

State Specific Exam
Knowledge/Experience Based

Intended to address specific state issues/requirements (2 states).

So What About the GIT?

FG Exam
Knowledge Based
Intended to test bachelor's level knowledge

The ASBOG FG Exam is the **ONLY** exam you can take before you get your work experience.

- **The Geologist in Training (GIT) is a certificate of achievement issued in recognition of passing the national ASBOG Fundamentals of Geology (FG) Exam.**
- **A GIT certificate allows you to use the protected title geologist in training.**
- **It is not a license to practice geology.**
- **It is not offered in all states.**
- **Students often qualify to apply for GIT before graduation and can put it on their resume.**

So Why Get a GIT?

A GIT certificate shows that *you have the qualities an employer wants*:

- Technical competence
- Understand the laws/regs
- Know what it takes to advance in your chosen profession
- Proactive

BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS

Laurie Racca, PG 6980
Senior Registrar, Geology & Geophysics

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2535 Capitol Oaks Dr., STE. 300
Sacramento, CA 95833
Toll Free: 1(866)780-5370 www.bpelsg.ca.gov

The PG Exam and PG Licensure

Shanna Schmitt, PG, CPG

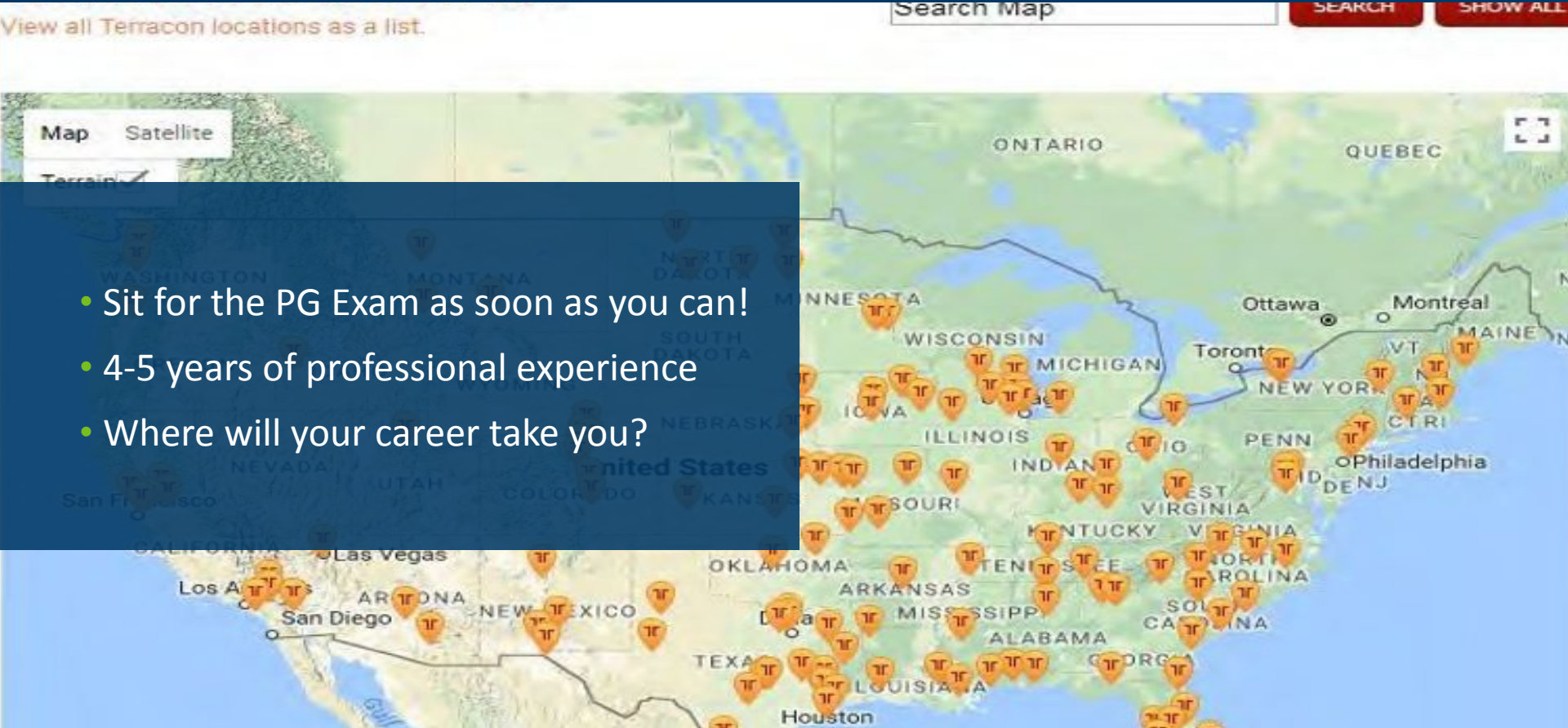
shanna.schmitt@state.mn.us

651-757-2697

MINNESOTA POLLUTION CONTROL AGENCY

Professional Geologist Path

Timing of the PG Exam



- Sit for the PG Exam as soon as you can!
- 4-5 years of professional experience
- Where will your career take you?

Practice of Geology Exam

- **Emphasizes skills and knowledge acquired or expanded in a practice or job setting**
- **Measures of competency related to the practice of the profession**
- **More weight given to Hydrogeology, Engineering Geology, & Economic Geology/Energy Resources content domains/areas**
- **More practical questions**

How to Study for the PG Exam?

- **National Association of State Boards of Geology® (ASBOG®)**
  - **https://www.asbog.org/candidates/candidates.html**
- **Handbook with sample questions**
- **Online review materials**
- **AGI Geoscience Handbook**
- **Geoscience Online Learning Initiative (AGI/AIPG/SEPM/ASBOG)**
- **STUDY BUDDY**

Why be licensed?

- **Required in many states**
- **Denotes a specialization in geology**
- **Demonstrates basic credibility/competence**
- **Bonus/career advancement**
- **Legal testimony or expert witness**
- **Commitment to continuing education**
- **Flexibility in your career!**

Keep Learning & Networking & Volunteering

- Don’t limit yourself to learning from co-workers
- Continuing education opportunities available from professional organizations
- Push yourself to network, it’s a small world

- **Professional Groups**
  - AIPG Minnesota Section
  - Minnesota Ground Water Association
  - Association of Women Geoscientists
  - Minnesota Association of Professional Soil Scientists
  - Minnesota Society of Professional Engineers
- **Surveys & Local Geoscience Groups**
  - Minnesota Geological Survey
  - Mesabi Range Geological Society
- **Industry Groups**
  - LinkedIn Groups
  - Minnesota Brownfields
  - Interstate Technology & Regulatory Council

Fundamentals of Geology Exam and GIT Process Advice

Jazzy Graham-Davis, GIT
They/Them/Theirs
Jazzymdavis@yahoo.com

STATE OF CALIFORNIA
dca
DEPARTMENT OF CONSUMER AFFAIRS

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Jazzy M Graham-Davis

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WITNESS OUR HAND AND SEAL

Certificate No. GIT 1309

This 8th day of January, 2021, at Sacramento, California.

VALID UNTIL PROFESSIONAL LICENSURE IS OBTAINED
BOARD FOR PROFESSIONAL ENGINEERS,
LAND SURVEYORS, AND GEOLOGISTS

DEPARTMENT OF CONSUMER AFFAIRS
STATE OF CALIFORNIA

Richard B. Moore, P.L.S. – Executive Officer

Alireza Asgari, Ph.D., S.E. – Board President

THIS CERTIFICATE IS THE PROPERTY OF THE STATE OF CALIFORNIA. IN THE EVENT OF ITS SUSPENSION, REVOCATION, OR INVALIDATION FOR ANY REASON
IT MUST, UPON DEMAND, BE RETURNED TO THE BOARD FOR PROFESSIONAL ENGINEERS, LAND SURVEYORS, AND GEOLOGISTS.

Disclaimer:

Advice and opinions are my own and don’t represent endorsement of study materials by ASBOG or any government agency.

When is the right time to take the exam(s)?

- As soon as possible for FG exam while material is still fresh in your mind
- Mentally prepared to thoroughly study and take a multi-hour exam
- Will have enough free time to study in day-to-day life over the course of 1-6 months
- Consider if you plan to move to another state in the near future

Application Process

- Print out checklist of needed documents
- Order transcripts early, even if you're unsure about applying
- Search for scholarships in your area or ask your employer if you can’t afford the cost

Geologist-in-Training (GIT) Application Checklist

Applicants applying for GIT certification are encouraged to use this checklist to ensure that they meet all application requirements. For detailed information about requirements read the Frequently Asked Questions (FAQs) Regarding Geology and Geophysics Licensure Requirements.

- ☐ **Confirm that you meet the qualifying educational requirements before applying by reviewing the applicable statutes and regulations:** Business and Professions Code section 7841.2 and Title 16, California Code of Regulations section 3022(a).
- ☐ **Complete the application in its entirety.** An original/wet signature is required on each page.
- ☐ **Submit official, sealed college/university transcripts for all relevant degrees and coursework, including community college transcripts.** Unsealed transcripts are not accepted. Foreign transcripts that are not in English do not need to be sealed, but applicants must submit the original transcripts along with a notarized English translation. Degree evaluations are not accepted.
- ☐ **Submit proof of completing the fingerprinting requirement.** All applicants must submit a copy of the completed Live Scan Form (applicants who reside or are currently located in California) or Fingerprint Cards (applicants who reside or are currently located outside of California). For additional information, review the Fingerprinting FAQs.
- ☐ **Submit the appropriate fees as indicated on the first page of the application.** Submit a check or money order payable to the Department of Consumer Affairs (DCA).
- ☐ **Put the application, all supporting documentation, and payment in one envelope.** Submitting the documents separately will delay the processing of your application.
- ☐ **Submit the application package postmarked by the final filing date for the desired exam cycle to:**

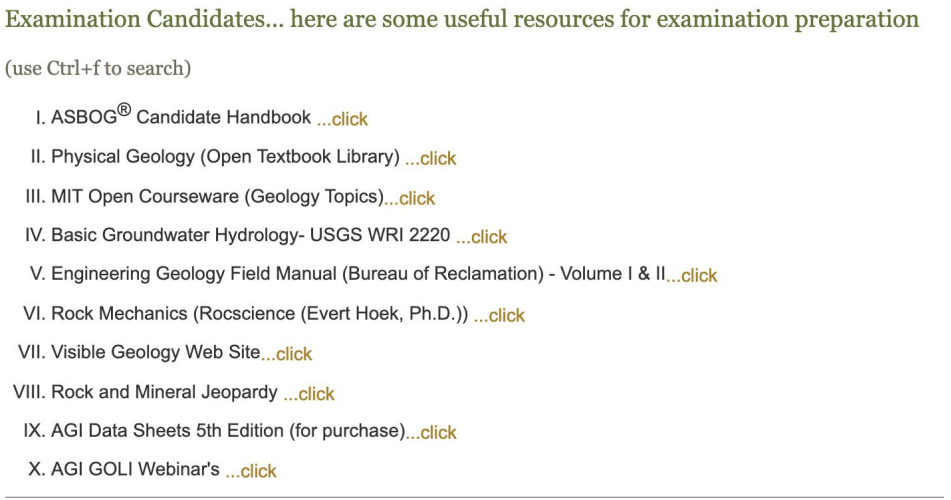
  Board for Professional Engineers, Land Surveyors, and Geologists
  2535 Capitol Oaks Drive, Suite 300, Sacramento, CA 95833
- ☐ **Use a mail tracking or delivery confirmation system to confirm the Board’s receipt of your application.** Due to the large volume of applications received by the Board, the Board cannot confirm receipt of applications or provide status checks. Communication regarding your application status will be sent to you via email (including emails from Board staff requesting additional documentation regarding your application, and notification of application approval).

Study Advice

- Study for 1-6 months depending on how many hours per day will be spent studying and number of exams being taken
- Practice with the calculator for the exam
- Only spend as much as **necessary** and possible on study materials
  - I.e don't pay for a course when a study guide is adequate
- **Make flash cards**

Cheap or Free Study Materials

- Textbooks from classes
- Blank flashcards
- Online video lectures
- ASBOG Candidate Handbook and links to other resources



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

https://asbog.org/candidates/candidates.html

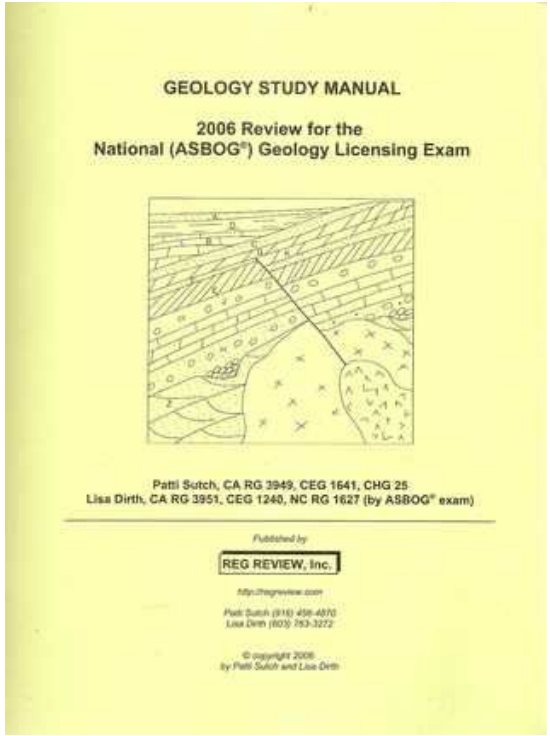
Purchasable Study Materials

Reg Review Inc

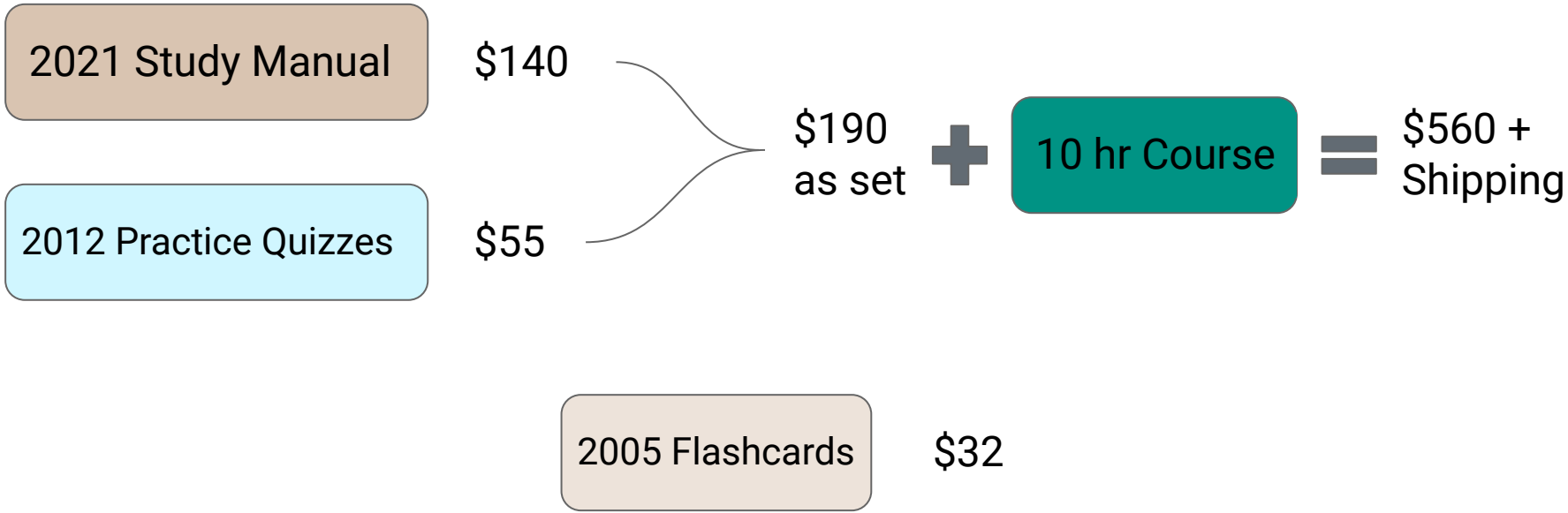
- Study Manuals*
- Flashcards*
- Practice Quizzes
- Courses*

***Doesn't differentiate FG and PG material**

https://regreview.com/



Reg Review Prices



Exam Day

- Eat before even if not hungry
- Bring flashcards for if you arrive early
- Be aware of the rules, location, and time(s) for exam(s)
- Wear comfortable clothes and check rules regarding jewelry and hats
- Make a bag of items you need the day before

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Question and Answer Session

(Submit questions through the Question Panel)

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