## **GEOLOGY, MS**

Natural Sciences, Mathematics, and Engineering (nsme) (https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/)

Department of Geological Sciences (https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/department-geological-sciences/)

Department Chair: William Krugh

Office: Science Building II, 340

Phone: (661) 654-3027 Email: wkrugh@csub.edu

www.csub.edu/geology (http://www.csub.edu/geology/)

Program Maps for Natural Sciences, Mathematics, and Engineering (https://programmap.csub.edu/academics/interest-clusters/4e942a6e-b8e4-4b60-a1ae-334235acc581/)

## Program Requirements Thesis Track (30 units)

Code	Title	Units
GEOL 5100	Research Methods and Strategies	2
GEOL 5200	Advanced Professional Development for MS Students	2
GEOL 6090	MS Thesis Proposal Defense	1
GEOL 6100	MS Thesis Research	4
GEOL 6200	MS Thesis Defense	1
A minimum of 20 units selected from 4000-level, 5000-level, and 6000-level courses (with at least 8 units from 5000-level or 6000-level courses). Relevant graduate-level courses in other fields may be substituted with prior Program Director and Thesis Committee		

GEOL 4060 Fundamentals of Petroleum Exploration and Production

and 8 additional units in approved petroleum geology focused courses are required for the optional concentration in Petroleum Geology

GEOL 4010 Hydrogeology

approval.

and 8 additional units in approved hydrogeology focused courses are required for the optional concentration in Hydrogeology

Total Units 30

## **Non-Thesis Track (30 units)**

Code	Title	Units
GEOL 5100	Research Methods and Strategies	2
GEOL 5200	Advanced Professional Development for MS Students	2
GEOL 6300	MS Non-Thesis Culminating Experience	1
A minimum of 25 units selected from 4000-level, 5000-level, and 6000-level courses (with at least 13 units from 5000-level or 6000-level courses). Relevant graduate-level courses in other fields may be substituted with prior Program Director approval.		25 be

GEOL 4060 Fundamentals of Petroleum Exploration and Production

and 8 additional units in approved petroleum geology focused courses are required for the optional concentration in Petroleum Geology

GEOL 4010 Hydrogeology

and 8 additional units in approved hydrogeology focused courses are required for the optional concentration in Hydrogeology

Total Units 30

## Requirements for the Certificate in Hydrogeology

The certificate requires at least 16 semester units of credit and shall be composed of the following required and elective courses:

Code	Title	Units
GEOL 4010	Hydrogeology	4
Select 12 credits f	rom the following:	12
GEOL 4020	Environmental Geochemistry	
GEOL 4770	Special Topics in Geology <sup>1</sup>	
GEOL 4771	Special Topics in Geology 2 1	
GEOL 5020	Applied Hydrogeochemistry	
GEOL 5030	Contaminant Hydrogeology	
GEOL 5810	Advanced Research Participation <sup>1</sup>	
GEOL 6050	Groundwater Modeling	
GEOL 5770	Advanced Topics <sup>1</sup>	
GEOL 5771	Advanced Topics 2	
GEOL 6770	Advanced Topics in Geology <sup>1</sup>	
Total Units		16

when pertinent to hydrogeology as determined by the Program Director