

**1<sup>st</sup> Year BS Geology**

<b>Semester-I (15 Cr. Hrs.)</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Subject Category</b>
NS-311	Physics	2+1	General
FE-312	Functional English	3	General
QR-313	Introduction to Mathematics	3	General
Geol-311	Introduction to Geology	2+1	Major
Geol-312	Geomorphology	2+1	Major
<b>Semester-II (15 Cr. Hrs.)</b>			
ICP-321	Ideology and Constitution of Pakistan	2	General
AH-323	Introduction to Pashto Literature	2	General
ISL-314	Islamic Studies	2	General
Geol-321	Introduction to Paleontology	2+1	Major
Geol-322	Stratigraphy	2+1	Major
Geol-323	Geological Fieldwork-I	3	Major

**2<sup>nd</sup> Year BS Geology**

<b>Semester-III (15 Cr. Hrs.)</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Subject Category</b>
SS-431	Principle of Management	2	General
EN-432	Entrepreneurship	2	General
EW-433	Expository Writing	2+1	General
CCE-434	Civics and Community Engagement	2	General
Geol-431	Optical Mineralogy & Petrography	2+1	Major
Geol-432	Structural Geology	2+1	Major
<b>Semester-IV (18 Cr. Hrs.)</b>			
QR-441	Introduction to Statistics	3	General
ICT-442	Applications of Information and Communication Technologies (ICT)	2+1	General
Geol-441	Geotectonics	2+1	Major
Geol-442	Mineralogy	2+1	Major
Geol-443	Sedimentology	2+1	Major
Geol-444	Geological Fieldwork-II	3	Major

**3<sup>rd</sup> Year BS Geology**

<b>Semester-V (18 Cr. Hrs.)</b>			
<b>Course Code</b>	<b>Course Title</b>	<b>Cr. Hrs.</b>	<b>Subject Category</b>
Geop-551	Introduction to Geophysics	2+1	Allied
GM-552	Introduction to GIS and RS	2+1	Allied
Geol-551	Igneous Petrology	2+1	Major

Geol-552	Sequence Stratigraphy	2+1	Major
Geol-553	Micropaleontology and biostratigraphy	2+1	Major
Geol-554	Petroleum Geology	2+1	Major
<b>Semester-VI (18 Cr. Hrs.)</b>			
GM-565	Cartography and Mobile Technology for data collection	2+1	Allied
Env-562	Introduction to Environmental Sciences	2+1	Allied
Geol-561	Metamorphic Petrology	2+1	Major
Geol-562	Geochemistry	2+1	Major
Geol-563	Engineering Geology	2+1	Major
Geol-564	Geological Fieldwork-III	3	Major

#### 4<sup>th</sup> Year BS Geology

<b>Semester-VII (18 Cr. Hrs.)</b>			
Course Code	Course Title	Cr. Hrs.	Subject Category
Geol-671	Geology of Pakistan	2+1	Major
Geol-672	Economic Geology	2+1	Major
Geol-673	Hydrogeology	2+1	Major
Geol-674	Introduction to Gemology	2+1	Major
Geol-675	Mining Geology	2+1	Major
Geol-676	Field experience/Internship	3	Field experience
<b>Semester-VIII (15 Cr. Hrs.)</b>			
Geol-681	Petroleum Engineering	2+1	Major
Geol-682	Instrumental Techniques	2+1	Major
Geol-683	Special course - I	2+1	Major
Geol-684	Special course - II	2+1	Major
CP-681	Research/Capstone Project	3	Project

No.	Category	No of Courses	Credit Hours
01	General Education Requirement Courses	12	30
02	Major Courses	11	33
Total Credit Hours			63

#### Scheme of study for Associate Degree in Geology

##### 1<sup>st</sup> Year BS Geology

<b>Semester-I (15 Cr. Hrs.)</b>			
Course Code	Course Title	Cr. Hrs.	Subject Category
NS-311	Physics	2+1	General
FE-312	Functional English	3	General

QR-313	Introduction to Mathematics	3	General
Geol-311	Introduction to Geology	2+1	Major
Geol-312	Geomorphology	2+1	Major
<b>Semester-II (15 Cr. Hrs.)</b>			
ICP-321	Ideology and Constitution of Pakistan	2	General
AH-323	Introduction to Pashto Literature	2	General
ISL-314	Islamic Studies	2	General
Geol-321	Introduction to Paleontology	2+1	Major
Geol-322	Stratigraphy	2+1	Major
Geol-323	Geological Fieldwork-I	3	Major

### 2<sup>nd</sup> Year BS Geology

<b>Semester-III (15 Cr. Hrs.)</b>			
Course Code	Course Title	Cr. Hrs.	Subject Category
SS-431	Principle of Management	2	General
EN-432	Entrepreneurship	2	General
EW-433	Expository Writing	2+1	General
CCE-434	Civics and Community Engagement	2	General
Geol-431	Optical Mineralogy & Petrography	2+1	Major
Geol-432	Structural Geology	2+1	Major
<b>Semester-IV (18 Cr. Hrs.)</b>			
QR-441	Introduction to Statistics	3	General
ICT-442	Applications of Information and Communication Technologies (ICT)	2+1	General
Geol-441	Geotectonics	2+1	Major
Geol-442	Mineralogy	2+1	Major
Geol-443	Sedimentology	2+1	Major
Geol-444	Geological Fieldwork-II	3	Major

Course code	Course	Cr. Hrs.
Geol-311	Introduction to Geology	3
Geol-312	Geomorphology	3
Geol-322	Stratigraphy	3
Geol-431	Optical Mineralogy & Petrography	3
Geol-432	Structural Geology	3
Geol-441	Geotectonics	3
Geol-443	Sedimentology	3
Total Credit hours		<b>21</b>