


**University School of Vocational Studies & Applied Sciences (USoVSAS)**  
**Gautam Buddha University, Greater Noida**  
**Department of Environmental Science**  
**Course Structure for Two-Year PG Programme in Geology – M.Sc. Geology**  
**(As per NEP 2020)**

[Total Credit-99]

<b>FIRST YEAR; FIRST SEMESTER</b>			
<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>L-T-P</b>
GCC-401	Igneous Petrology	4	4-0-0
GCC-403	Mineralogy and Crystallography	4	4-0-0
GCC-405	Structural Geology and Tectonics	4	4-0-0
GCC-407	Geomorphology and Geodynamics	4	4-0-0
GCC-409	Environmental Geology	4	4-0-0
GCC-411	Geology Lab-I	4	0-0-8
<b>Credits Sub-total</b>		<b>24</b>	<b>20-0-8</b>
<b>FIRST YEAR; SECOND SEMESTER</b>			
<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>L-T-P</b>
GCC-402	Metamorphic Petrology and Thermodynamics	4	4-0-0
GCC-404	Sedimentology	4	4-0-0
GCC-406	Geochemistry and Geochronology	4	4-0-0
GCC-408	Micropaleontology and Oceanography	4	4-0-0
GCC-410	Geological Mapping and Field work	4	3-0-2
GCC-412	Hydrogeology and Engineering Geology	4	0-0-8
GCC-414	Geology Lab-II	4	4-0-0
<b>Credits Sub-total</b>		<b>28</b>	<b>23-0-10</b>

<b>SECOND YEAR; THIRD SEMESTER</b>			
<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>L-T-P</b>
GCC-501	Stratigraphy and (General and Invertebrate) Paleontology	4	4-0-0
GCC-503	Ore and Fuel Geology	4	4-0-0
GCC-505	Exploration and Mining Geology	4	4-0-0
GCC-507	Geology Lab-III	4	0-0-8
GSE-501/ ES- 505	Remote Sensing and Geographical Information System (RS-GIS)	3	3-0-0
GSE-502/ ES- 513	Research Methodology	3	3-0-0
GVA-501/ BESV-301	Environmental Ethics and Philosophy	3	3-0-0
<b>Credits Sub-total</b>		<b>25</b>	<b>21-0-8</b>

  
 Dean  
 School of Vocational Studies and Applied Sciences  
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 Gautam Budh Nagar-201 312, U.P.

<b>SECOND YEAR; FOURTH SEMESTER</b>			
<b>Course Code</b>	<b>Course Name</b>	<b>Credits</b>	<b>L-T-P</b>
GEC-502	Basic Geophysics	4	4-0-0
GEC-504	Sequence Stratigraphy/ Vertebrate Paleontology/ Petroleum Geology/ Quaternary Geology/ Glaciology/ Marine Geology	4	4-0-0
GEC-506	Seminar	2	0-2-0
GEC-508	Dissertation	12	0-0-24
	<b>Credits Sub-total</b>	<b>22</b>	<b>8-2-24</b>
	<b>Credits Grand Total</b>	<b>99</b>	<b>72-2-50</b>

GEC= Geology Core Course, GSE= Geology Skill Enhancement Course, GVA= Geology Value-added Course,  
GEC=Geology Elective Course

**Contact:**

Prof. N.P. Melkania  
(M) 94109-06829  
(email: [niranjan.melkania@gbu.ac.in](mailto:niranjan.melkania@gbu.ac.in))



**Prospective Resource Person:**

Prof. Santosh Kumar  
Head, Dept. of Geology  
Kumaun University, Nainital (Uttarakhand)  
(M) 94111-97714  
(email: [skyadavan@yahoo.com](mailto:skyadavan@yahoo.com))



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Dean  
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