

CURRICULA
of the Undergraduate Programs of the Department of Applied Geophysics,
University of Mining and Geology “St. Ivan Rilski” – Sofia (Year 2004-2005)

Year	Semester	No.	Code	Courses	Type of cont	Lectures	Seminar study	Total hours in the semester	Credits	
First Year	Winter Semester	1	121101	General Geology	E	3	2	65	5.0	
		2	131103	Mineralogy and Petrography	E	3	2	65	5.0	
		3	361101	Mathematics – Part I	E	3	3	78	6.0	
		4	371101	Introduction to Computer Technologies	TC	1	2	39	3.0	
		5		<i>Social Science (elective) – one out of: *</i>	E	2	2	52	4.0	
			411201	A. History of Philosophy						
			411202	B. Logics						
			411206	C. Culturology						
			431143	<i>Physical Recreation (elective) – one out of:</i>	TC		1		1.0	
				A. Soccer						
				B. Badminton						
				C. Tourism						
				D. Volleyball						
		E. Swimming								
		F. Basketball								
		G. Aerobics and Callanetics								
				Total for Winter Semester (First Year) :		11	23	299	24	
First Year	Summer Semester	6	361102	Mathematics – Part II	E	3	3	84	6.5	
		7	181102	Physics – Part I	E	3	2	70	5.5	
		8	111103	Fundamentals of Geostatistics *	TC	2	1	42	3.0	
		9	341103	General Electrical Engineering	E	2	2	56	4.0	
		10	361111	Numerical Methods and Principles of Computer Programming *	TC	2	2	56	4.0	
		11	251124	Geodesy and Mine Surveying	E	2	4	56	4.0	
			431143	<i>Physical Recreation (elective) – one out of:</i>	TC		1	28	1.0	
				A. Soccer						
				B. Badminton						
				C. Tourism						
				D. Volleyball						
				E. Swimming						
				F. Basketball						
		G. Aerobics and Callanetics								
				Total for Summer Semester (First Year) :		14	12	364	28	
				Summer Field Practices :						
				<i>General Geology – 6 days x 6 hours ;</i>				36		
				<i>Mineralogy – 6 days x 6 hours ;</i>				36		
				<i>Petrography – 6 days x 6 hours</i>				36		
				Total for Summer Field Practices (First Year) :				108	8	
				Total for First Academic Year :				663	52	
				Total for First Academic Year and Summer Field Practices :				771	60	

Year	Semester	No.	Code	Courses	Type of cont	Lectures	Seminar study	Total hours in the semester	Credits	
Second Year	Winter Semester	12		<i>Foreign Language (elective) – one out of :</i>			4	52	4.0	
			421201	A. English						
			421202	B. German						
			421203	C. French						
			421204	D. Russian						
		13	281102	Theoretical Mechanics	E	2	1	39	3.0	
		14		<i>Elective – one out of :</i>	E	2	1	39	3.0	
			231221	A. Rocks Mechanics						
			231209	B. Mining Technologies						
		15	181103	Physics – Part II	E	3	2	65	5.0	
		16	121114	Stratigraphy, Historical and Regional Geology	E	2	1	39	3.0	
		17	171123	Ecology and Environmental Protection	E	3	1	52	4.0	
		18	141111	Algorithms and Computer Programming in Geophysics	TC	2	3	65	5.0	
			431143	<i>Physical Recreation (elective) – one out of :</i>	TC		1	26	1.0	
				A. Soccer						
				B. Badminton						
				C. Tourism						
				D. Volleyball						
		E. Swimming								
		F. Basketball								
		G. Aerobics and Callanetics								
Total for Winter Semester (Second Year) :						14	13	351	28	
Second Year	Summer Semester	12		<i>Foreign Language (elective) – one out of :</i>	TC		4	56	4.0	
			421201	A. English						
			421202	B. German						
			421203	C. French						
			421204	D. Russian						
		19	181104	Nuclear Physics	E	2	2	56	4.0	
		20	141101	Basics of Geophysics *	TC	3		42	3.0	
		21	141102	Theory of the Physical Field	E	3	2	70	5.0	
		22	151130	Hydrogeology and Engineering Geology	E	3	2	70	5.0	
		23	121113	Structural Geology and Geological Mapping	E	3	1	56	4.0	
			431143	<i>Physical Recreation (elective) – one out of :</i>	TC		2	28	1.0	
				A. Soccer						
				B. Badminton						
				C. Tourism						
				D. Volleyball						
				E. Swimming						
				F. Basketball						
				G. Aerobics and Callanetics						
Total for Summer Semester (Second Year) :						14	11	350	26	
Summer Field Practices :										
<i>Geological Mapping – 6 days x 6 hours ;</i>								36		
<i>Hydrogeology and Engineering Geology – 6 days x 6 hours ;</i>								36		
<i>Algorithms and Computer Programming in Geophysics– 6 days x 6 hours</i>								36		
Total for Summer Field Practices (Second Year) :								108	6	
Total for Second Academic Year :								701	54	
Total for Second Academic Year and Summer Field Practices :								809	60	

Year	Semester	No.	Code	Courses	Type of cont	Lectures	Seminar study	Total hours in the semester	Credits		
Third Year	Winter Semester	24	111117	Geology and Prospecting of Mineral Deposits	E	2	2	52	4.0		
		25	141112	Petrophysics and Physics of the Rock Massif	E	2	2	52	4.0		
		26	141103	Gravitational Methods in Geophysics		2	2	52	4.0		
		27	161129	Basics of Drilling	E	3	2	65	5.0		
		28	141104	Electrical Methods in Geophysics		3	2	65	5.0		
		29	141113	Radioelectronics and Principles of Geophysical Apparatus	E	2	2	52	4.0		
		Total for Winter Semester (Third Year) :						14	12	338	26
Third Year	Summer Semester	30	141106	Seismic Methods in Geophysics		3	2	70	5.5		
		26	141103	Gravitational Methods in Geophysics	E	3	2	70	5.5		
		28	141104	Electrical Methods in Geophysics	E	3	2	70	5.5		
		28	141118	Course Project in Electrical Methods in Geophysics	TC		1	14	1.0		
		31	141105	Magnetic Methods in Geophysics		2	2	56	4.0		
		32	111133	Geology and Prospecting for Oil and Gas Deposits	E	2	2	56	4.0		
		Total for Summer Semester (Third Year) :					13	11	24	336	26
		Summer Field Practices :									
		<i>Electrical Methods in Geophysics – 5 days x 5 hours ;</i>								25	
		<i>Gravitational Methods in Geophysics – 5 days x 5 hours ;</i>								25	
<i>Magnetic Methods in Geophysics – 4 days x 5 hours</i>								20			
<i>Seismic Methods in Geophysics – 4 days x 5 hours. ;</i>								20			
Total for Summer Field Practices (Third Year) :								90	8		
Total for Third Academic Year :								674	52		
Total for Third Academic Year and Summer Field Practices :								764	60		
Fourth Year	Winter Semester	31	141105	Magnetic Methods in Geophysics	E	3	2	65	5.0		
		31	141119	Course Project in Magnetic Methods in Geophysics	TC		1	13	1.0		
		30	141106	Seismic Methods in Geophysics	E	3	2	65	5.0		
		33	141107	Radiometry and Nuclear Geophysics		3	1	52	4.0		
		34	141109	Borehole Geophysics		3	2	65	5.0		
		35	141108	Remote Sensing Techniques in Geophysics	E	3	2	65	5.0		
		Total for Winter Semester (Fourth Year) :						15	10	325	25
Fourth Year	Summer Semester	36	271110	Economics	E	2	2	56	3.5		
		33	141107	Radiometry and Nuclear Geophysics	E	3	2	70	5.5		
		34	141109	Borehole Geophysics	E	3	2	70	5.5		
		37	261102	Technical Safety	TC	2	1	42	3.0		
		38	141110	Integrated Geophysical Studies	E	3	2	70	5.5		
		38	141121	Course Project in Integrated Geophysical Studies	TC		1	14	1.0		
		Total for Summer Semester (Fourth Year) :						13	10	322	24
		Summer Field Practices :									
<i>Radiometry and Nuclear Geophysics – 2 days x 5 hours</i>								10	1		
Total for Summer Field Practices (Fourth Year) :								10			
STATE EXAMINATION									10		
Total for Fourth Academic Year and Summer Field Practice:								647	49		
Total for Fourth Academic Year								657	60		
Total for the Four Academic Years Full – Time Study :									240		