

Program “Basic Geophysical Data Acquisition and Processing”

Month 1

Topic	Dates	hrs	Dates due
Skype introduction conference	1		
Video:1.1			
Literature	1-30	9.5	30
Chapter 1: The principles and limitations of geophysical exploration methods Q&A Chapter 1		0.5	3
Video: 1.1			
Chapter 6: Gravity surveying Q&A Chapter 6.1, 6.2, 6.3, 6.5, 6.6		3.0	10
Video: 1.2			
Chapter 7: Magnetic surveying Q&A Chapter 7.1, 7.2, 7.3, 7.4, 7.11		3.0	17
Video: 1.3			
Chapter 8: Electrical surveying Q&A Chapter 8.1, 8.2.1-3, 8.2.6, 8.3.1-2, 8.4.1-3		3.0	24
Video: 1.4, 1.5, 1.6, 1.7			
Exercises: Gravity	1-10	2.0	10
Ex_Swing		0.5	9
Ex_Contour map anomaly		0.5	12
Ex_Gravity response sphere		0.5	16
Ex_Gravity resolution		0.5	19
Exercise: Magnetism	11-20	1.0	20
Ex_Finding your local magnetic field		0.5	26
Ex_Grav-Mag responses		0.5	30
Exercise: Electrical	21-30	2.5	30
Ex_Effective Resistance		0.5	22
Ex_Electrical Surveying		0.5	24
Ex_Resistivity profiles		0.5	26
Video 1.9, 2.0		0.5	28
Skype progress conference	29	0.5	30
Total		15.0	

Ref: An Introduction to Geophysical Exploration, Kearey, Brooks, Hill, ISBNB0-632-04929

Month 2

Topic	Dates	hrs	Dates due
Literature	1-30	9.0	30
Chapter 9: Electro-Magnetic surveying Q&A Chapter 9.1-3, 9.11.3, 9.12, 9.13		3.0	7
Video: 2.1			
Chapter 3: Elements of seismic surveying Q&A Chapter 3.3-3, 3.2.6-8		3.0	15
Chapter 5: Seismic refraction surveying Q&A Chapter 5,1-4			
Chapter 4a Seismic reflection surveying Q&A Chapter 4.1-4		3.0	30
Video: 2.2, 2.3-11			
Exercises: Electro-Magnetic surveying	1-9	1.5	9
Ex_EM		0.5	3
Ex_CSEM		0.5	6
Ex_TDEM		0.5	9
Exercises: Refraction	10-11	0.5	11
Ex_Refraction		0.5	11
Exercises: Reflection	12-30	3.5	30
Ex_Shot raypaths		0.5	13
Ex_Field record		0.5	15
Ex_Surface and subsurface diagrams		0.5	17
Ex_Propagation of seismic waves		0.5	19
Ex_Snell's Law		0.5	21
Ex_Reflection and Transmission		1.0	25
Videos: 2.4, 2.5, 2.6		0	
Skype progress conference		0	
Total		14.5	

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Month 3

Topic	Dates	hrs	Dates due
Literature	1-31	4.0	31
Chapter 4b: Seismic reflection surveying Q&A Chapter 4.5-9		4.0	
Video: 3.1-3			
Exercises: Processing	1-17	5.0	17
Ex_Sampling & Aliasing		0.5	2
Ex_Near-surface Statics		0.5	4
Ex_Stacking Velocity picking		0.5	
Ex_KF Transform		0.5	6
Ex_Correlation, Convolution, Deconvolution		0.5	8
Ex_Discrete Fourier Transform (DFT)		0.5	10
Ex_FFT		0.5	12
Ex_Migration Displacement		0.5	14
Ex_Diffraction curves		0.5	16
Ex_Migration using Diffraction curves		0.5	17
Exercises Interpretation	16-25	2.5	25
Ex_TD conversion		0.5	18
Ex_DT conversion I		0.5	21
Ex_DT conversion II		0.5	22
Ex_TD conversion by vertical stretch		0.5	24
Ex_Dimming		0.5	25
Exercises: VOI	25-31	1.0	31
Ex_VOI		1.0	31
Video: 3.4-6			
Final test			
Skype final conference	31		31
Total		12.5	
Grand Total		42.5	

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For information on the fee and registration please contact info@epts.org .