

Self - Assessment Checksheet - Geophysics – New Syllabus September 2, 2011

*****Note: If self-assessment differs from APEGM assessment, APEGM assessment shall prevail *****

Applicant Name: _____ **Reviewed by:** _____

| | | |
|---|-------------------------------------|----------------------|
| APEGM requirements | | |
| Section IA: COMPULSORY FOUNDATION SCIENCES. 3 EUs required – 1 per area | | |
| Mathematics (1 EU) (See Note 1) | | |
| Physics (1 EU) | | |
| Chemistry (1 EU) | | |
| Section 1B. ADDITIONAL FOUNDATION SCIENCE – 6 EUs required – no more than 2 in any subject, Geo subjects containing the foundational topics listed may be substituted. See Note 2. | | |
| Biology | 1. | |
| | 2. | |
| Chemistry | 1. | |
| | 2. | |
| Computer Programming | 1. | |
| | 2. | |
| Mathematics | 1. | |
| | 2. | |
| Physics | 1. | |
| | 2. | |
| Statistics | 1. | |
| | 2. | |
| Section II. GEOPHYSICS | | |
| 2A. COMPULSORY FOUNDATION GEOSCIENCE – 4 EUs – 1 EU per area | | |
| Field Techniques | 1. | |
| Mineralogy/Petrology | 2. | |
| Sedimentation/Stratigraphy | 3. | |
| Structural Geology | 4. | |
| 2B. ADDITIONAL FOUNDATION GEOSCIENCE – 1 EU for 5 subgroups | | |
| Digital Signal Processing | . | |
| Global Geophysics/Physics of the Earth | . | |
| Seismology/Seismic Methods | | |
| Exploration Geophysics | | |
| Radiometrics/Gravity & Magnetism | | |
| Electrical & Electromagnetic Methods | | |
| 2C. ADDITIONAL GEOSCIENCE. 9 EU's required – 2nd level or higher – at least four different groups | | |
| Group | Course Possibilities | Course Number |
| Applied Math/Physics | Calculus | |
| | Computer Controlled Instrumentation | |
| | Condensed Matter Physics | |
| | Continuum Mechanics | |
| | Digital Signal Processing | |
| | Electromagnetic Theory | |
| | Electronics for Scientists | |
| | Fluid Dynamics | |
| | Fluid Flow Porous Media | |
| | Geostatistics | |
| | Integral Transforms | |
| | Linear Algebra | |
| | Mathematical Physics | |
| | Numerical Methods/Computing | |
| Optics | | |
| Partial Differential Equations | | |

| | | |
|--------------------------------------|--------------------------------------|--|
| | Signal Analysis | |
| | Vector and Tensor Analysis | |
| | | |
| Communication | Thesis or Technical Writing | |
| Earth & Planetary Geoscience | Geomagnetism/Paleomagnetism | |
| | Global Tectonics | |
| | Global Geophysics | |
| Field Techniques | | |
| Fundamental Maths/Physics | Complex Analysis | |
| | Differential Equations | |
| | Electricity & Magnetism | |
| | Mechanics | |
| | Thermodynamics | |
| | Vibrations, Waves & Optics | |
| | | |
| Geology | Geochemistry | |
| | Igneous Petrology | |
| | Metamorphic Petrology | |
| | Sedimentary Petrology | |
| | Structural Geology | |
| | Tectonics | |
| | | |
| Geophysical Methods & Interpretation | Analytical Methods | |
| | Marine Geophysics | |
| | Electrical & Electromagnetic Methods | |
| | Gravity & Magnetics | |
| | Seismology | |
| | Radiometrics | |
| | Rock Properties/Rock Physics | |
| | Seismic Interpretation | |
| | | |
| Modern Physics | | |
| Near Surface Geoscience | Environmental Geophysics | |
| | Geomorphology | |
| | GIS | |
| | Glacial/Quaternary Geology | |
| | Remote Sensing | |
| | | |
| Regional Geology | Geology of Canada | |
| | Geology of North America | |
| | | |
| Resource Geoscience | Fluid Flow in Porous Media | |
| | Hydrogeology/Hydrology | |
| | Mineral Deposits Geology | |
| | Petroleum Geology | |
| | Reservoir Engineering | |
| | Well Log Analysis | |
| | | |

Comments:

Note 1: 1 EU is approximately equal to one 3 Credit hour course.

Note 2: Normally only 1 Geoscience substitute would be allowed for Section 1B. However, up a maximum of two geoscience substitutes could be allowed if necessary, provided these geoscience courses had sufficient fundamentals content.