



The upcoming 2022 Open Learning Course inside **WPC YP RO Program “Magnetic insides from Ground to Space”** will offer the opportunity to gain new skills, updated knowledge and a certificate of completion.

Information on the course

Subject name		Magnetic insides from Ground to Space	
Course tutor		Lecturer Dr. Anca ISAC	
Coordinator		Dr. Eng. Pandele NECULAE – WPC CPC	
Course Duration: 6 hours	Start date: March 16, 2022, every two weeks, Wednesday	Time: 16:00-16:50 UTC / London Time	Presentation and Examination type: Oral on Zoom Meeting Platform Registration: anca.isac62@gmail.com
Content		Teaching strategies	
Earth’s magnetic field and its complex behavior -definition and history -geomagnetic field sources -instruments and methodologies for measurements of magnetic field		Presentation and discussion March 16, 2022	
Geomagnetic Observations -global geomagnetic observatory network -repeat station activities -aeromagnetic and marine measurements -magnetic satellite missions		Presentation and discussion March 30, 2022	
Geomagnetic Data and Models -global view of magnetic crustal anomalies -the satellite perspective -the worldwide compilation		Presentation and discussion April 13, 2022	
Using magnetic anomalies at regional scale -archeological support -magnetic signature of impact craters -geological hazards		Presentation and discussion April 27, 2022	
Terrestrial Magnetism -Earth-like planetary magnetism from satellite missions and models		Presentation and discussion May 11, 2022	
Geomagnetism in the Space Age -space weather and geomagnetism -data assimilation and predictability in geomagnetism -long-term evolution of Earth’s magnetic field -solar-terrestrial activity		Presentation and discussion May 25, 2022	
Follow up <ul style="list-style-type: none"> - Prof. Dr. Mihai MIHAITA – President ASTR and AGIR - Dr. Stefan Marincea, CEO Geological Institute of Romania - Message of WPC YP - President Stéphane Rousselet - Conf. Univ. Dr. Nicolae HAR – Director Mineralogy Department, UBB, Biology and Geology Faculty - Dr. Eng. Pandele Neculae – WPC CPC RO Representative - Dr. Anca ISAC – IGR Scientific Director 		Presentation and discussion June 08, 2022	

Bibliography

Introduction to Geomagnetic Fields, 2003, Cambridge University Press, W.H. Campbell;

Geomagnetic Observations and Models, 2011, Springer, IAGA Special Sopron Book Series, vol.5, M. Manda and M. Korte Editors;

The Changing Faces of the Earth's Magnetic Field, 2007, Commission for the Geological Map of the World, M. Manda and E. Thebault;

Terrestrial Magnetism, 2010, Springer, Space Sciences Series of ISSI, G. Hulot, A. Balogh, U. Christensen, C. Constable, M. Manda Editors;

Geomagnetic Field, Measurement Techniques, 2020, Gupta H. (eds) Encyclopedia of Solid Earth Geophysics, Encyclopedia of Earth Sciences Series, Springer, https://doi.org/10.1007/978-3-030-10475-7_117-1, M. Manda and A. Isac;

A comparative analysis of the magnetic field signals over impact structures on the Earth, Mars and the Moon, 2016, Advances in Space Research 57, Issue 1, 477-492, Isac A., Manda M., Purucker M., Langlais B.



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