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| Semester: | 1 | | |
| Course Code: | ENCM 11702 | | |
| Course Name: | Evolution of Earth and Biogeography | | |
| Credit Value: | 2 | | |
| Status: | Compulsory | | |
| Pre-requisite: | GCE (A/L) Biology | | |
| Co-requisite: | None | | |
| Hourly Breakdown: | Theory | Practical | Independent Learning |
| | 26 | 12 | 62 |
| Intended Learning Outcomes: | | | |
| After completion of this course unit, the student will be able to; | | | |
| <ol style="list-style-type: none"> 1. explain the theories that explain the origin and the evolution of earth, 2. explain the origin and diversification of early life forms, 3. explain the biogeographic history of earth, 4. describe the processes that determine the distribution pattern of biota on earth, and 5. discuss the effect of human evolution and civilization on biogeography. | | | |
| Course Content: | | | |
| Evolution of Earth | | | |
| Introduction and Origin of earth: Hydrosphere, atmosphere and of life on earth. | | | |
| Diversification of prehistoric life and changes on earth. Speciation. Processes of extinction. | | | |
| Human evolution. Stages of human civilization. Global human population. | | | |
| Biogeography | | | |
| Introduction to biogeography. Continental drift and the Theory of plate tectonics. | | | |
| Biogeographic regions of the world with fauna and flora. Glaciations events of the earth. | | | |
| Dispersal mechanisms of organisms in the world. Patterns of species distributions on earth. | | | |
| Practical sessions on: Evidences for evolution. Origin of earth and life. Homologous, analogous and vestigial characters of animals. Morphological changes of monkeys, apes and human. Plate tectonics, continental drift and their impacts, study visit to natural history museum Sri Lanka. | | | |
| Teaching /Learning Methods: end-of-semester | | | |
| A combination of lectures, practical sessions, field studies, computer based learning, self-studies, field based assignments and small group discussions. | | | |
| Assessment Strategy: Continuous assessment and end of semester examination. Percentage given for each sub component indicates the percent contribution to the final marks. | | | |
| Continuous Assessment 30 % | | Final Assessment 70 % | |
| Details: | | Theory | Practical |
| Tutorial | 10 | 70 | - |
| Group presentation | 10 | | - |
| Laboratory report | 10 | | |
| Recommended Readings: | | | |
| <ol style="list-style-type: none"> 1. Futuyama, D. J., & Kirkpatrick, M. (2017). Evolution.4th edition. Oxford University Press. 2. Raven, P. H. & G. B. Johnson (2010). Biology. 8th Edition. Tata McGraw-Hill. | | | |

3. Reece, J. B., L. A. Urry, M. L. Cain., S. A. Wasserman., P. V. Minorsky & R. B. Jackson (2011). *Campbell Biology, Global Edition*. 9th Edition. Pearson Education Inc., San Francisco, CA.
4. MacDonald, G.M. (2003). *Biogeography-space, time and life*. John Wiley & Sons.
5. Cox, C. B., Moore, P. D., & Ladle, R. J. (2016). *Biogeography: an ecological and evolutionary approach*. John Wiley & Sons.