

# **VIDYASAGAR UNIVERSITY**

Midnapore, West Bengal



*PROPOSED CURRICULUM & SYLLABUS (DRAFT) OF*

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## **BACHELOR DEGREE WITH GEOGRAPHY (MULTIDISCIPLINARY STUDIES)**

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**3-YEAR UNDERGRADUATE PROGRAMME**  
*(w.e.f. Academic Year 2023-2024)*

*Based on*

**Curriculum & Credit Framework for Undergraduate Programmes  
(CCFUP), 2023 & NEP, 2020**

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VIDYASAGAR UNIVERSITY, PASCHIM MIDNAPORE, WEST BENGAL

**VIDYASAGAR UNIVERSITY**  
**BACHELOR DEGREE IN MULTIDISCIPLINARY STUDIES with GEOGRAPHY**  
*(under CCFUP, 2023)*

| Level   | YR.             | SEM                      | Course Type        | Course Code  | Course Title  | Credit | L-T-P | Marks     |          |          |          |            |
|---|-----------------|--------------------------|--------------------|--------------|---|--------|-------|-----------|----------|----------|----------|------------|
|   |                 |                          |                    |              |   |        |       | CA        | ESE      | TOTAL    |          |            |
| B.Sc. in Physical Sc. / B.A. in Social Science with Geography | 1 <sup>st</sup> | I                        | <b>SEMESTER-I</b>  |              |   |        |       |           |          |          |          |            |
|   |                 |                          | Major (Disc.-A1)   | GEOPMJ101    | T: Fundamentals of Earth System Science<br><i>(To be studied by the students taken Geography as Discipline-A)</i> |        |       | 4         | 3-0-1    | 15       | 60       | 75         |
|   |                 |                          | SEC                | SEC01        | <i>To be chosen from SEC-01 of Discipline A/B/C of their Hons. prog.</i>  |        |       | 3         | 0-0-3    | 10       | 40       | 50         |
|   |                 |                          | AEC                | AEC01        | Communicative English-1 <i>(common for all programmes)</i>  |        |       | 2         | 2-0-0    | 10       | 40       | 50         |
|   |                 |                          | MDC                | MDC01        | Multidisciplinary Course-1 <i>(to be chosen from the list )</i>   |        |       | 3         | 3-0-0    | 10       | 40       | 50         |
|   |                 |                          | VAC                | VAC01        | VAC-01: ENVS <i>(common for all programmes)</i>   |        |       | 4         | 2-0-2    | 50       | 50       | 100        |
|   |                 |                          | Minor (Disc.-C1)   | GEO MI 01/C1 | T: Fundamentals of Earth System Science<br><i>(To be studied by the students taken Geography as Discipline-C)</i> |        |       | 4         | 3-1-0    | 15       | 60       | 75         |
|   |                 | <b>Semester-I Total</b>  |                    |              |   |        |       | <b>20</b> |          |          |          | <b>400</b> |
|   |                 | II                       | <b>SEMESTER-II</b> |              |   |        |       |           |          |          |          |            |
|   |                 |                          | Major (Disc.-B1)   |              | <i>To be decided<br/>(Same as like A1 for students taken Geography as Discipline-B )</i>                          |        |       | 4         | 3-0-1    | 15       | 60       | 75         |
|   |                 |                          | SEC                | SEC02        | <i>To be chosen from SEC-02 of Discipline A/B/C of their Hons. prog.</i>  |        |       | 3         | 0-0-3    | 10       | 40       | 50         |
|   |                 |                          | AEC                | AEC02        | MIL-1 <i>(common for all programmes)</i>  |        |       | 2         | 2-0-0    | 10       | 40       | 50         |
|   |                 |                          | MDC                | MDC02        | Multi Disciplinary Course-02 <i>(to be chosen from the list )</i>   |        |       | 3         | 3-0-0    | 10       | 40       | 50         |
|   |                 |                          | VAC                | VAC02        | VAC-02 <i>(to be chosen from the list)</i>  |        |       | 4         | 4-0-0    | 10       | 40       | 50         |
|   |                 |                          | Minor (Disc.-C2)   | GEO MI 02/C2 | T: Human Geography<br><i>(To be studied by the students taken Geography as Discipline-C)</i>                      |        |       | 4         | 3-0-1    | 15       | 60       | 75         |
|   |                 |                          | Summer Intern.     | CS           | Community Service   |        |       | 4         | 0-0-4    | -        | -        | 50         |
|   |                 | <b>Semester-II Total</b> |                    |              |   |        |       | <b>24</b> |          |          |          | <b>400</b> |
|   |                 | <b>TOTAL of YEAR-1</b>   |                    |              |   |        |       | <b>44</b> | <b>-</b> | <b>-</b> | <b>-</b> | <b>800</b> |

P MJ= Major Programme (Multidisciplinary), MI = Minor, A/B = Choice of Major Discipline; C= Choice of Minor Discipline; SEC = Skill Enhancement Course, AEC = Ability Enhancement Course, MDC = Multidisciplinary Course, VAC = Value Added Course; CA= Continuous Assessment, ESE= End Semester Examination, T = Theory, P= Practical, L-T-P = Lecture-Tutorial-Practical, MIL = Modern Indian Language, ENVS = Environmental Studies

VIDYASAGAR UNIVERSITY, PASCHIM MIDNAPORE, WEST BENGAL

## MAJOR (MJ)

**MJ A1/B1: Fundamentals of Earth System Science**

**Credits 04 (FM: 75)**

**MJ A1/B1T: Fundamentals of Earth System Science**

**Credits 04 [60L]**

### **Course contents:**

1. Geotectonics: Origin of Earth, Earth's interior, Isostasy, Continental drift and Plate tectonics.
2. Geomorphology: Working of processes and landforms developed by weathering, mass wasting, river, glacier and wind. Landscape evolution models of Davis, Penck, King and Hack
3. Hydrology and Oceanography: Hydrological Cycle. Hydrological Parameters: Run off, Infiltration and evapotranspiration. Occurrence and storage of Groundwater. Major relief features of the ocean floor: Pacific, Atlantic and Indian Ocean. Formation of coral reefs. Distribution of Salinity and Temperature in Pacific, Atlantic and Indian Ocean.
4. Climatology: Composition and layering of the atmosphere. Factors of Insolation, Heat budget of the atmosphere. Horizontal and vertical distribution of temperature. Mechanism and forms of precipitation. Pressure belts and general circulation in the atmosphere. Tropical and mid-latitude cyclones. Monsoon. Climatic classification after Köppen, Thornthwaite
5. Soil Geography: Factors of soil formation. Soil profile development in Lateritic, Podzol and Chernozem soils. Physical and chemical properties: soil texture, structure,  $p^H$ , organic matter and NPK. Principles of soil classification: Genetic and USDA

### **Suggested Readings:**

1. Andrew. D. Ward and Stanley, Trimble (2004): Environmental Hydrology, 2nd edition, Lewis Publishers, CRC Press.
2. Barry, R.G. and Chorley, R.J. (2003): *Atmosphere, Weather and Climate*, Routledge, London
3. Biswas, T.D. and Mukherjee, S.K. 1997: Textbook of Soil Science, TataMcGraw Hill,
4. Bloom A. L., 2001: Geomorphology: A Systematic Analysis of Late Cenozoic Landforms, Prentice-Hall of India, Third edition , New Delhi.
5. Brady, N.C. and Weil, R.R. 1996. The Nature and Properties of Soil, 11th edition, Longman, London :
6. Chandrasekar, A. (2010): *Basics of Atmospheric Science*, PHI Learning Pvt. Ltd., New Delhi
7. Das, P.K. 1995 : Monsoons, 2nd edition, National Book Trust, New Delhi
8. Floth, H.D. 1990. Fundamentals of Soil science, 8th edition, John Wiley and Sons, New York.
9. Houghton, J. (2002): *Physics of Atmosphere*, Cambridge University Press, Cambridge
10. Karanth, K.R., 1988: Ground Water: Exploration, Assessment and Development, Tata- McGraw Hill, New Delhi.
11. Keary, P. and Vine, M. 1997. Global Tectonics, 2nd edition, Blackwell Scientific Publications, Oxford:302p
12. Kershaw S., 2000: Oceanography: An Earth Science Perspective, Stanley Thornes, And UK.
13. Lal, D.S. 1993 : Climatology, 3rd edition, Chaitanya Pub. House, New Delhi
14. Morgan, R.P.C. 1995 Soil Erosion and Conservation, 2nd edition, Longman, London
15. Oliver J.E. & Hioddore J.J, 2003.: Climatology: An atmospheric science, Pearson
16. Selby, M.J., (2005), Earth's Changing Surface, Indian Edition, OUP
17. Singh, Vijay P.(1995): Environmental Hydrology. Kluwer Academic Publications, the Netherlands.
18. Skinner, Brian J. and Stephen C. Porter (2000), The Dynamic Earth: An Introduction to physical Geology, 4th Edition, John Wiley and Sons
19. Sverdrup K. A. and Armrest, E. V., 2008: An Introduction to the World Ocean, McGraw Hill, Boston.
20. Thornbury W. D., 1969: Principles of Geomorphology, Wiley.
21. Wallace, J.M. and Hobbs, P.V. (1977): *Atmospheric Science-An Introductory Survey*, Academic Press, New York.

**MINOR (MI)**

**MI-1/C1: Same as Minor-1 (GEOMI01) of Geography (Hons) programme**      **Credits 04**  
**Full Marks: 75**

**MI-2/C2: Same as Minor-2 (GEOMI02) of Geography (Hons) programme**      **Credits 04**  
**Full Marks: 75**

**SKILL ENHANCEMENT COURSE (SEC)**

**TO BE CHOSEN FROM THE BUCKET OF SECs OF SELECTED DISCIPLINE A/B/C**  
**(As per A/B/C Hons. Prog. Syllabus)**