BACHELORS WITH WATER MANAGEMENT AS MINOR (CT – I)

7th SEMESTER

WMG722N WATER MANAGEMENT _ ENVIRONMENTAL IMPACT ASSESSMENT IN WATER MANAGEMENT

CREDITS: THEORY: 3, PRACTICAL: 1

COURSE OUTCOME:

It is expected that students will acquire the skill of critical analysis andevaluation of impacts on various components of environment.

UNIT I: FUNDAMENTALS OF EIA AND SEA

Environment impact assessment: Concept and objectives, EIA process, Impact evaluation and prediction, EIA guidelines 2006 and amendments, SEA: Concept and process

UNIT II: EIA METHODOLOGIES

Protocol for EIS, Baseline data generation, EIA methods, Water quality assessment, Environmental audit

UNIT III: EIA CASE STUDIES

Hydro power, Irrigation and drainage, Common effluent treat plants, Thermal power projects, Risk assessment, characterization and management

PRACTICAL:

1. EIA – Leopold Matrix method and
2. Presentations based on EIA case studies
3. Socio-economic studies – preparing of questionnaire and case studies
4. Waste auditing of any institution/ organization
5. Visit to any developmental/Project area for identification of impacts on the environment

SUGGESTED READINGS:

1. Anjaneyulu Y. and Manickam Valli 2011. Environmental Impact Assessment Methodologies. CRC Press 2011.
2. Petts. J. Handbook of Environmental Impact Assessment, Volume 1 and Volume II. 1999.Wiley-Blackwell.
3. Wathern, P. 1990. Environmental Impact Assessment: Theory and Practice. RoutledgePublishers.
4. Glasson J. Therivel Riki and Chadwick Andrew 2012. Introduction to EnvironmentalImpact Assessment 4th Edition. Oxford Brookes University.
5. Marriott B. 1997. Environmental Impact Assessment: A Practical Guide. McGraw-HillPublication.
6. Shrivastava A.K., Baxter Nicola, and Grimm Jacob 2003. Environmental Impact Assessment. APH Publishers, 2003.
7. Lawrence, D.P. 2003. Environmental Impact Assessment. Practical Solutions to RecurrentProblems. John-Willey and Sons.
8. Glasson J. and Therivel Riki. 2019. Introduction to Environmental Impact Assessment. 5thEdition. Routledge Publishers.
9. Arjum Kumaar.A. Rathi. 2021 Handbook of Environmental Impact Assessment. Conceptsand practice. Cambridge Scholars Publishing.
10. Anji Reddy Mareddy, Anil Shah. 2017. Environmental Impact Assessment. Theory andPractice. Elsevier Science.