Skill Based Course (SBC): 02 Credits

SBC (3) (III.5.1) MOOC and E-Learning
Skill Based Course

1. Credit Distribution of the Course

Course title & Code SBC (3) (III.5.1)	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
MOOCs and E-Learning	2	0	0	2	Undergraduate	NIL

2. Learning Objectives

This course will be delivered in the practical mode giving students hands-on experience on Massive Open Online Courses (MOOCs) and E-Learning ecosystems. Students will develop MOOC structures based on pedagogical frameworks. They will learn essential skills to create simple MOOC programs by embedding various technology components. The course will also explore existing initiatives, such as SWAYAM, Coursera, edX and others for their pedagogical framework, instructional design and suitability of learners' needs. Students will gain hands-on experiences in developing digital learning modules and will analyse the analytical models of learners' engagement.

3. Learning Outcomes ·

- Create vision board and technical blueprint for an E-learning and MOOC based course;
- Draw concept maps for different types of MOOCs;
- Write content script for a Learner Centric MOOC (LCM);
- Create high dimension videos and digital content for a MOOC course;
- Design evaluation rubric based on learning outcomes of a MOOC course;
- Design interactive, engaging and inclusive LCM;
- Integrate online and blended learning strategies in curriculum design.

4. Syllabus

The course will be transacted in the practical mode supplemented through conceptual and theoretical knowledge.

5. Practical **[60 hours]**

- Prepare a summary sheet for technological and pedagogical foundations of MOOCs and E-learning
- Conduct structural analysis of different kinds of MOOCs (cMOOCs, xMOOCs, synchronised and asynchronized MOOCs, hybrid MOOCs)
- Prepare a review report on challenges of online learning engagement
- Suggest gamification in a running MOOC
- Review different pedagogy frameworks for learner-centric MOOCs; Prepare a blue print of different elements of a course based on MOOC structure
- Review of available digital platforms for MOOCs (e.g. SYAYAM, Coursera, edx)
- Create a pedagogically sound script plan for a MOOC development
- Review any 5 MOOC courses available on different platform and compare them on program relevance, quality of content and scope of students engagement
- Do content mapping of a MOOC based on a math course
- Design a learner-centric MOOC of any math topic from
- Conduct a critical Review and Pedagogical Analysis of Existing Mathematics MOOCs
- Design a storyboard of a School Mathematics Concept through Instructional Design Frameworks
- Creating a concept explainer video for a mathematics MOOC
- Designing Interactive Mathematics Learning Tasks using digital tools (H5P/GeoGebra)
- Analysing assessment and feedback models in mathematics MOOCs
- Developing a two-Week MOOC module outline for a selected mathematics topic
- Designing peer-interaction and discussion prompts for online mathematics learners
- Evaluating accessibility, inclusivity, and Universal Design in mathematics MOOCs
- Designing, hosting, and reflecting on a mini-MOOC in school mathematics

6. Essential Readings

- Horton, W. (2020). *E-Learning by Design (2nd Ed.)*. Wiley.
- Smith, B., Eng, M. (2013). MOOCs: *A Learning Journey*. In: Cheung, S.K.S., Fong, J., Fong, W., Wang, F.L., Kwok, L.F. (eds) Hybrid Learning and Continuing Education. ICHL 2013. Lecture Notes in Computer Science, vol 8038. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-39750-9_23
- NEP 2020, Ministry of Education, Government of India.
- British Educational Research Association [BERA] (2018). *Ethical Guidelines for Educational Research*, fourth edition, London. https://www.bera.ac.uk/researchers-resources/publications/ethicalguidelines-for-educational-research-2018

7. Suggestive Readings

- Aparicio, M., Oliveira, T., Bacao, F., & Painho, M. (2019). *Gamification: A key determinant of massive open online course (MOOC) success.* Information & Management, 56(1), 39-54.
- Fidalgo-Blanco, Á., Sein-Echaluce, M.L. & García-Peñalvo, F.J. *From massive access to cooperation: lessons learned and proven results of a hybrid xMOOC/cMOOC pedagogical approach to MOOCs*. International Journal of Educational Technology in Higher Education, 13, 24 (2016). https://doi.org/10.1186/s41239-016-0024-z