SBC (3) (III.5.3) Universal Design of Learning
Skill Based Course

1. Credit Distribution of the Course

Course title & Code SBC (3) (III.5.3)	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Universal Design of Learning	2	0	0	2	Undergraduate	NIL

2. Learning Objectives

The course will be delivered in the practical mode developing theoretical understanding and practical applications of Universal Design of Learning (UDL) principles in a learning ecosystem. The course emphasizes hands-on approach where students get practical experience in designing and testing UDL based learning-teaching resources. Students will learn and design UDL based learning resources for inclusive and accessible education. The UDL concepts will be applied specifically for math learners.

3. Learning Outcomes

- Develop UDL need assessment rubric for inclusive education in schools;
- Apply UDL principles to curriculum, pedagogy, and assessment design;
- Develop UDL based learning - teaching resources for accessibility and inclusivity;
- Create and map variability to UDL checkpoints;
- Create flexible instructional pathways (choice-boards, scaffolded tasks, individualised plans, differentiated instructions and assessments);
- Propose UDL aligned classroom support plans for inclusivity and autonomy.

4. Syllabus

The course will be taught in the practical form where the principles of Universal Design of Learning (UDL) will be applied to curriculum design, pedagogy and assessment. The reference subject domain will be mathematics/STEM. Students will learn about UDL principles and use them to create learning-teaching & assessment resources for inclusive classrooms.

5. Practical **[60 hours]**

- Learner variability observation record sheet of learner variability and participation barriers
- Designing a UDL-based mathematics content unit
- Creating a UDL-aligned assessment task
- Developing assistive technology integrated unit plan
- Institutional audit on UDL framework
- Create a resource portfolio for inclusive math material for any concept of your choice.
- Write a Tech integration report linking digital accessibility with UDL principles.
- Create a short math quiz or performance based assessment that allows multiple means of expression.
- Design a prototype of an inclusive math game with usage instructions.
- Conduct four-five micro-teaching sessions of a math concept applying at least two UDL principles. Write a review report on "how UDL strategies improved engagement and understanding."
- Write a UDL Lesson Audit Report with redesign suggestions for any math unit of any math textbook.
- Design UDL-aligned math lesson plan with rationale and expected learning outcomes.

6. Essential Readings

- CAST (2018). *Universal Design for Learning Guidelines, Version 2.2.*
- Rose, D. H. & Meyer, A. (2021). *Universal Design for Learning: Theory and Practice.* CAST.
- Henderson, A. (2012). *Dyslexia, Dyscalculia and Mathematics: A Practical Guide*. Routledge, Taylor & Francis Group, London & New York.
- Burton, D. & Kappenberg, J. (2013). *Mathematics, the Common Core, and RTI: An Integrated Approach to Teaching in Today's Classrooms.* Corwin Press.

7. Suggestive Readings

- Martin, N., Wray, M. & Krupa, J. (2025). *Universal Design for learning: A Critical Approach (ed.).* Routledge.
- Burton, D. & Kappenberg, J. (2013). *Mathematics, the Common Core, and RTI: An Integrated Approach to Teaching in Today's Classrooms.* Corwin Press.
- National Education Policy 2020. Ministry of Education, New Delhi.
- UNESCO (2022). *Reimagining Inclusion and Education: Global Policy Framework.*