DSC 6 (II.3) Curriculum: Nature, Theories and Models
Discipline Specific Core

1. Credit Distribution of the Course

Course title & Code DSC 6 (II.3)	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Curriculum: Nature, Theories and Models	4	3	0	1	Undergraduate	-

2. Learning Objectives

The broad aim of this course is to develop holistic understanding of "Education" as a developmental force and how the purpose of education conceptualizes the idea of curriculum selection and legitimization of formal curriculum content. It further facilitates the students' understanding on social influences on the aims of education and its' impact on the curriculum planning and implementation with focus on school Mathematics Curriculum. The course focuses on understanding aims of teaching Mathematics as continuum from narrow aims to higher aims; organization of Mathematics Curriculum (in the light of latest NCF, Position Paper on Teaching of Mathematics with special focus on twin premises of learning mathematics and universalization of schooling).

3. Learning Outcomes

- able to understand theoretical constructs of curriculum development;
- able to analyse curriculum development models;
- able to understand the role of various organizations in curriculum development process;
- able to conceptualize the idea and need of National Curriculum Framework;
- able to differentiate between narrow and higher aims of teaching Mathematics.

4. Syllabus

Unit I: Perspectives in Curriculum with reference to society, power and knowledge selection Analysis of curriculum as intent and as reality; curriculum as the reflection of educational ideas and aspirations to be operationalized; curriculum as means to provide experiences to realize educational proposal into practice, Analysis of assumptions: the nature of knowledge, the nature of the child and the nature of the society, Debate on selection of knowledge, Debate on competing conception of balance and development of individual needs and the needs of the society.

[15 hours]

Unit II: Process of curriculum development, Analysis of models: 'Objective model' and Process model', approaches to curriculum development: Role of central and state governments of India, Centralized and decentralized curriculum development, Evaluation of curriculum as a whole. **[8 hours]**

Unit III: Concept of a National Curriculum Framework vs National Curriculum Concept of curriculum framework, Kinds of curriculum framework, Curriculum in a democratic setup, Curriculum to facilitate and respect diversity, Concept of a National Curriculum Framework rather than a National Curriculum to help establish uniformity of democratic and secular norms, with the flexibility of approach and local contextually. **[13 hours]**

Unit IV: Understanding aims of teaching mathematics as continuum from narrow aims to higher aims, Organization of Mathematics Curriculum (in the light of latest NCF, Position Paper on Teaching of Mathematics with special focus on twin premises of learning mathematics and universalization of schooling). **[9 hours]**

5. Illustrative Practical Details: **[30 hours]**

- Time line on development of reforms in Mathematics Education in India/ Comparative analysis of International Mathematics Curriculum
- Critical review of an existing curriculum
- Design a mini-curriculum unit
- Comparative analysis of different boards of math curriculum

6. Essential Readings

- Valley A.K. (2009). *The Curriculum: Theory and Practice,* Sage Publication.
- Ornstein A.C., Pajak E.F., Ornstein S.B., (2014). *Contemporary Issues in Curriculum*, Pearson.
- Li Y. & Lappan G. (Eds.) (2014). *Mathematics Curriculum in School Education,*. Springer Publishers.
- NCTM. (2007). *Perspectives on the Design and Development of School Mathematics Curricula.*
- Null W. (2011). *Curriculum: From Theory to Practice,* Rowman & Littlefield Publisher.
- Reys B. & Reys R. (2010). *Mathematics Curriculum: Issues, Trends, and Future Directions* (Seventy-second Yearbook), NCTM.
- Ernest P., Greer, B. & Sriraman B. (2009). *Critical Issues in MathematicsEducation,*Information Age Publishing.

7. Suggested Readings

- Tyler, Ralph W. (2013) Basic Principles of Curriculum and Instruction. The University of Chicago press.
- Murray (1993) Curriculum Development and Design Practical guide to curriculum planning with models and frameworks. Publisher: Allen & Unwin
- Ornstein, A. C., & Hunkins, F. P. (2018). Curriculum: Foundations, Principles, and Issues. Pearson.