

**HOMI BHABHA CENTRE FOR SCIENCE EDUCATION**  
**Tata Institute of Fundamental Research**

Date: December 02, 2021

**Title:** Teaching Overview cum Practicum (UTP-II)

**Course Code:**

**Credits:** Four

**Duration:** 16 weeks (January 21 to May 20, 2022).

**Time and location:** Wednesdays and Fridays, 11am to 1pm, Blended mode (Online & Room 217, Main building.

Field work locations will be intimated later.

**Contact hours:** 52 hrs, 26 sessions,

**Instructors:** Narendra D. Deshmukh and Kalpana Kharade.

### **About the course**

Scholars step into a graduate programme in education with differing levels of experience in teaching and varied backgrounds of their education. No matter the differences, this course will provide an immersive experience of teaching preparation and practice, preparing scholars to search for answers to several questions later in their research: What should be taught? How do we teach? How does a teacher prepare curriculum for conceptual development among students? How does one make informed decisions about schools, teachers and students? This course stands on the belief that one needs to understand the processes of preparation and practice of teaching to make decisions about what is worth researching and what needs to inform policy.

### **Learning Objectives**

- To get acquainted with the experiences of preservice teachers
- To understand the various aspects of planning and implementing a classroom transaction
- To link theories of teaching with teaching practice.
- To obtain hands on experience of designing a learning unit and teaching it

The course consists of four main units, Teacher Preparation, Perspectives in Education, Organizing the Curriculum, Experience in Teaching. Each of these units requires intense, consistent participation from the scholars. Further requirements and assessments will be communicated to the scholars in the introductory lecture(s). The course readings and useful links will be put up on the Centre's Moodle; contribution to discussions on the platform is also encouraged.

### **I. Teacher Preparation**

This unit will help in gaining understanding of some of the teacher preparation. There will be lectures, interactions with Pre-service teachers, and observation of practicum in teacher certification courses.

**Activities:**

1. Work with (shadow) a preservice teacher.
2. Observe classroom interactions in D. Ed / B.Ed colleges or schools.
3. Maintain field notes and reflective diary, and present from the same during debriefing
4. Design and conduct an interview with a studentteacher and a teacher educator which will inform your understanding of teacher preparations for a classroom setting.

**Assignments:**

1. Maintain field notes and reflective diary
2. Interview notes and its analysis

**II. Perspectives in Education**

Education is complex and there are multiple perspectives that inform (influence?) formal education. This short unit will include readings and discussions about some of these perspectives and ideas. The unit will require critical reading, presentation and written summaries.

**Activities:**

1. Read, discuss and understand basic literature on teaching and classroom transactions.
2. Maintain field notes and reflective diary, and present from the same during debriefing.

**Assignment:**

Formulate your own definition of what teaching is based on the readings. We will revisit the same throughout the semester, to see how our experiences from observations, apprenticeship and teaching reflect in that definition. Maintain a reflective diary on this.

**III. Organizing the Curriculum**

Participants are expected to select a topic from school curriculum, study textbooks through grades and prepare an analytical report on the same. They will share their understanding through presentations and work as a group to prepare a consolidated analysis.

## Activities:

- Re-design a teaching trajectory in discussion with your mentor.
- Re-enact the trajectory in a teaching camp
- Understand and reflect on your teaching and what really happened.
- Maintain a reflection diary, and present from the same during de-briefs.

## Written Assignments

- The lesson plans / the design of the trajectory.
- Field notes of enactment and submission of your reflection diary.

**IV. Experience in Teaching**

This unit will expect participants to work as teachers of Science and Mathematics. It is but one of the immersive experiences that scholars will have of teaching in schools. They are expected to plan their lessons, teach, and reflect on their teaching. In addition to school teaching experience, the second year scholars will also teach at the Homi Bhabha Centre for Science Education for an experience in higher education.

## Activities:

- Become an intern with an in-service teacher, for 7-10 days.

- Participate in all the activities around work of teaching.
- Maintain a field note and reflection diary, and present from the same during de-briefs.
- Note that the in-service teacher will be evaluating your participation in this component, and therefore those respective teachers will give the assignments.

Written Assignment: Students are expected to write a detailed reflective note on their internship experience, and how this has contributed to your understanding of teaching practice. The assignment should be submitted by May end.

**Important Note:** Scholars are expected to maintain a reflection journal to be shared with instructors from time-to-time.

**Assessments:**

The course components have been set as follows:

Unit	Component	No of sessions	Assessment
<b>Teacher Preparation</b>	Lecture – Educational Objective	1	
	Orientation	1	
	Observation of Pre-service teachers	7* working days	Field notes with observations, interviews (if any), reflections
	Debriefing	2	Participation in discussions
<b>Perspectives in Education</b>	Readings	5	Presentations, written summaries, participation in discussions
<b>Organizing the Curriculum</b>	Tracing a topic across grades and school boards	3	Presentation of findings, written report, participation in discussions
<b>Experience in Teaching</b>	Peer lectures (conducted by 2nd year)	3	Lectures
	Lesson planning	2* weeks	
	Teaching Practice	1* week	Classroom sessions, reflections
	Debriefing	2	Participation in discussions

\* Subject to availability of schools/ teachers.

**References:**

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2. Pohl, M. (1999). Learning to Think, Thinking to Learn
3. Anderson, L., & Krathwohl, D. E. (2001). *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives [Abridge Edition].* New York: Addison Wesley Longman, Inc.
4. Labaree, D. F. 2000. On the nature of teaching and teacher education: Difficult practices that look easy, *Journal of Teacher Education*, 51:3, p228-233.
5. Neumann, K., Kind, V., & Harms, U. (2019) Probing the amalgam: the relationship between science teachers' content, pedagogical and pedagogical content knowledge, *International Journal of Science Education*, 41:7, 847-861, DOI: 10.1080/09500693.2018.1497217
6. Dewey, J. (1904/1965). The relation of theory to practice in teacher education. In M. Borrowman, (Ed.). *Teacher education in America: A documentary history.* (pp. 140-171). New York: Teachers College Press
7. Hiebert, J., Morris, A, Berk, D. Jansen, A. (2007). Preparing teachers to learn from teaching. *Journal of Teacher Education*, 58(1), 47–61
8. Govinda, R. (2011). *Who goes to school? Exploring exclusion in Indian education.* India: Oxford UP.
9. Barnes, D. (2010). Why talk is important. *English Teaching: Practice and Critique* 9(2), 710. Retrieved from <https://edlinked.soe.waikato.ac.nz/research/files/etpc/files/2010v9n2art1.pdf>
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11. Glassman, M. 2001. Dewey and Vygotsky: Experience, society, and inquiry in educational practice, *Educational Researcher*, 30:4, p3-14.
12. Sarangapani, P. 2003. Indigenising curriculum: Questions posed by baiga vidya, *Comparative Education*, 39:2, p199-209.