



BRIDGING PROGRAM FOR ONE-YEAR B.ED. HOLDERS

*Curriculum, Guidelines, and Pathways for In-Service Teachers
toward Secondary Teaching License Test Eligibility*



Develop Teacher → Develop Sindh

JUNE, 2026

SINDH TEACHER EDUCATION DEVELOPMENT AUTHORITY
STEDA office, 4th Floor @ PNSC Building, Lalazar, Karachi

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**SINDH TEACHERS EDUCATION DEVELOPMENT
AUTHORITY (STEDA)**

**SCHOOL EDUCATION & LITERACY DEPARTMENT
GOVERNMENT OF SINDH**

No: STEDA/ 1446 / 2026

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NOTIFICATION

With the approval of the Competent Authority i.e. Board of Governors (BoG), STEDA, the Bridging Course Mechanism is hereby notified for in-service teachers holding a one-year Bachelor of Education (B.Ed.) degree with immediate effect.

The Bridging Course is intended to enable such teachers to fulfil the prescribed eligibility requirements for appearing in the Secondary Teaching License Test, in accordance with the Teaching License Policy and the provisions of this notification. It is further clarified that successful completion of the Bridging Course shall **only** fulfill the eligibility requirements for appearing in the Secondary Teaching License Test and **shall not** be equivalent to, or confer the academic status of, a **B.Ed. (1.5-Year)** degree or any other academic qualification.

The course structure, duration, credit-hour requirements, accreditation guidelines, quality assurance requirements, institutional eligibility criteria, and the procedures for the approval, monitoring, and evaluation of institutions authorized to offer the Bridging Course are set out in Bridging Program guidelines, which shall form an integral part of this notification.

All concerned institutions, stakeholders, and prospective candidates shall comply with the provisions of this notification and the respective Annexures. This Bridging Course Mechanism shall come into force with effect from the date of issuance of this notification.

**SAYED RASOOL BUX SHAH
Executive Director (STEDA)**

A copy is forwarded for information & necessary action to:

1. The Members, Board of Governors, STEDA
2. The Members, Teaching License Academic Council (All)
3. P.S. to Minister for Education & Literacy, Sindh/ Chairman BoG, STEDA
4. P.S. to Secretary, School Education & Literacy Department, Govt. of Sindh
5. P.S. to The Chairman, Sindh Higher Education Commission, Sindh
6. P.S. to The Chief Executive Advisor, Curriculum Wing, SE&LD, Govt. of Sindh
7. P.S. to The Director General, Inspection & Registration of Private Institutions, SE&LD
8. P.S. to The Director General, Provincial Institute of Teacher Education (PITE), Sindh Nawabshah
9. P.S. to The Director, Directorate of Curriculum, Assessment & Research (DCAR), Sindh Jamshoro
10. P.S. to The Additional Director, Teacher Training Institutions, Sindh Hyderabad
11. P.S. to The Directors School Education (Primary/ES&HS) All
12. P.S. The District Education Officers (Primary/ES&HS) All
13. P.S. to Registrar Public/Private Universities (All)
14. P.S. Heads of Teacher Education Institutions (All)
15. Taluka Education Officers (Primary/ES&HS) All/ Heads of Hub Schools
16. Official Website
17. Office Record

STEDA Office, 4th floor, PNSC Building, Lalazar, Karachi

Website: www.steda.gos.pk Email: steda.info@gmail.com Tel # 021-99333321-3

1. Introduction to Bridging Program

The implementation of teacher licensing in Sindh represents a landmark reform in the province’s education policy landscape, signaling a decisive commitment to institutionalizing professional standards, strengthening accountability mechanisms, and ensuring quality assurance in teaching. This shift is particularly critical at the secondary level, where the demands of subject specialization, pedagogical rigor, and informed instructional decision-making are significantly heightened.

Within this framework, the Secondary Teaching License Test has been established as a comprehensive measure of teacher competence. It moves beyond the traditional assessment of subject knowledge to encompass pedagogical content knowledge (PCK), assessment literacy, effective classroom practices, and the capacity for reflective professional engagement—thereby aligning teacher evaluation with contemporary standards of educational excellence.

However, a substantial proportion of the current teaching workforce possesses the B.Ed. (1-Year) qualification, which—while historically valuable—was not designed to meet the expanded competency framework embedded in the National Professional Standards for Teachers (NPSTs) and the HEC-notified B.Ed. framework (2025).

The B.Ed. (1-Year) program typically provides limited exposure to subject-specific pedagogy, insufficient practicum integration, and minimal engagement with research and reflective practice, all of which are essential for success in the Secondary Teaching License Test. This creates a structural misalignment between existing teacher qualifications and the requirements of the licensing regime.

Recognizing this gap, and to ensure fairness, inclusion, and system-wide coherence, the Teaching License Academic Council of STEDA formally recommended the development of a Bridging Program as a transitional academic mechanism for in-service 1 year B. ED holders. This recommendation was subsequently approved by the Board of Governors (BoG), STEDA, in its 19th Meeting, thereby establishing the program as an official pathway for eligibility.

The Bridging Program is therefore not merely a supplementary qualification; it is a policy-driven corrective intervention designed to enable B.Ed. (1-Year) teachers to upgrade their competencies, ensure comparability with graduates of longer-duration teacher education programs, and safeguard the integrity and standards of the Secondary Teaching License Test.

Structured as a six-month program comprising 18 credit hours, the Bridging Program focuses specifically on the competency domains assessed in the Secondary Teaching License Test. It emphasizes advanced Pedagogical Content Knowledge (PCK) in secondary subjects, strengthens teachers’ capacity for curriculum interpretation and implementation, and enhances their understanding of assessment and evaluation practices. Additionally, the program integrates the use of ICT and Artificial Intelligence in education, while also promoting practice-based inquiry through action research as a means of continuous professional development.

These Guidelines further ensure that all accredited institutions adhere to minimum quality standards in curriculum delivery, faculty expertise, assessment rigor, and certification processes. This guarantees consistency, credibility, and transparency across all providers, thereby maintaining the integrity of the eligibility pathway leading to the Secondary Teaching License Test.

The Bridging Program is designed to achieve multiple interrelated objectives. It facilitates eligibility for the Secondary Teaching License while addressing qualification gaps among in-service teachers holding a one-year B.Ed. degree. At the same time, it strengthens teachers' Pedagogical Content Knowledge (PCK) and enhances their assessment literacy, enabling them to design and implement more effective evaluation strategies. The program also promotes technology-enhanced teaching practices, equipping teachers with the skills to integrate digital tools and emerging technologies into their classrooms. Furthermore, it fosters reflective and research-oriented practice, encouraging teachers to critically examine and improve their instructional approaches. In doing so, the program ensures professional equity and standardization across the teaching workforce and supports broader quality assurance mechanisms within the teacher licensing system.

The following structure has been approved for implementing 1 year B.Ed. program

2. Structure of Courses for 1-Year B.Ed. Bridging Program

Courses Category	Finalized Courses	Total Credit Proposed
Foundation Course	1. Curriculum development and Implementation	3 credits
Professional Courses	2. Educational Assessment & Evaluation	3 credits
	3. ICT and AI in Education	3 credits
Specialization PCK Courses	4. Pedagogical Content Knowledge (English/ Urdu/ Sindhi/ Biology/ Chemistry/ Physics /Math/ Social Science) (Any 2 Courses)	6 credits
Research & Professional Growth	5. Action Research	3 credits
Total		Total 18 Credits

3. STEDA Guidelines for Accreditation and Implementation of Bridging Courses

1. Purpose

These Guidelines set forth the requirements, quality assurance procedures, and accreditation standards for institutions seeking recognition from the Sindh Teacher Education Development Authority (STEDA) to offer the Bridging Program for Secondary Teaching License Eligibility.

2. Eligibility of Institutions

The primary purpose of this Bridging Program is to establish a structured, equitable, and competency-based pathway enabling in-service teachers holding a B.Ed. (1-Year) professional qualification to meet the eligibility requirements for appearing in the Secondary Teaching License Test.

2.1 The following institutions may apply to offer Bridging Courses:

- Provincial Institute of Teacher Education (PITE) Sindh
- Government Teacher Training Institutions (TTIs) Sindh
- Public and Private Sector Universities
- Service Providers accredited by STEDA

2.2 Service Providers already accredited by STEDA are not required to undergo re-accreditation; however, they shall submit the prescribed documents as per checklist for approval of the Bridging Course along with application by addressing Executive Director STEDA through hard and soft copies (Both).

2.3 Institutions not accredited by STEDA shall first obtain accreditation in accordance with the relevant STEDA Accreditation Standards available on the STEDA website www.steda.gos.pk

2.4 All interested Service Providers offering the Bridging Course shall ensure the registration of all enrolled candidates on the STEDA web portal (www.steda.gos.pk) within the prescribed timelines to ensure the certificate validity.

3. Eligibility of Candidates

3.1. In-Service Candidates possessing a one-year B.Ed. degree from a HEC-recognized university are eligible for enrollment in the Bridging Course.

3.2. It is mandatory for all the participant to submit HEC verified/Attested Degrees at the time of registration.

4. Bridging Course Duration

4.1. The Bridging course will be applicable for the period of two years i.e. July 2026 to June 2028.

4.2. Each cycle of the Bridging course shall be of 18 credit hours.

4.3. The program is based on 06 courses approved by STEDA and each course has 03 credit hours.

5. Deployment of Faculty

The accredited institution shall appoint/deploy qualified faculty for the implementation of the Bridging Course as follows:

- At least three (03) Facilitators/Faculty members.
- Minimum sixteen (16) years of education.
- B.Ed. (1.5 Years / 2.5 Years), M.Ed., or equivalent qualification.
- Relevant teaching experience.
- Demonstrated digital literacy and ability to facilitate technology-supported learning.

6. Infrastructure and Learning Resources

The accredited institution shall provide adequate infrastructure and learning resources to support effective teaching and learning, including:

- Well-equipped classrooms with adequate seating, proper ventilation, sufficient lighting, multimedia facilities, and internet access.
- A functional computer laboratory equipped with computers/laptops and multimedia facilities.
- Access to digital learning resources and online learning facilities, where applicable.

7. Assessment and Examination

The accredited institution shall implement the approved assessment mechanism as follows:

Components	Marks per subject
Assignments	10
Attendance	10
Portfolio	10
Mid term	20
Final term	50
Total	100

- Participants must obtain a minimum of 60% marks in each component.
- Institutions shall maintain a complete assessment record for verification and quality assurance purposes.
- The mid-term and final term criteria do not apply to the action research course as the participant will have to submit an action research report as mentioned in the course outline.

8. Record and Reporting

The institution shall maintain and submit the following records to STEDA when required:

- Enrollment record
- Attendance record
- Assessment record
- Faculty deployment record
- Result completion record
- Bridging Course cycle report
- Action Research reports (On STEDA web portal)

9. Quality Assurance and Monitoring

STEDA reserves the right to conduct monitoring visits, desk reviews, audits, and quality assurance checks at any stage during the implementation of the Bridging Course.

The accredited institutions shall:

- Facilitate STEDA monitoring and verification visits.
- Provide access to all relevant records and facilities.
- Submit compliance reports as required by STEDA.
- Implement recommendations made by STEDA's Quality Assurance Team.
- Maintain compliance with all approved standards throughout the implementation period.

10. Certification

Upon successful completion of the Bridging Course and fulfillment of all prescribed requirements:

- The institutions shall issue certificates upon the completion of the program.
- Certificates shall be issued only to successful participants.
- List of successful participants will be submitted to STEDA in hard and soft copy
- The certificate shall be valid solely for eligibility to appear in the Secondary Teaching License Test and shall not be treated as an equivalent to any academic degree or diploma.

11. Validity of Approval

The approval / accreditation granted for the Bridging Course shall remain valid for the duration of the approved Bridging Course cycle, subject to continued compliance with STEDA requirements.

12. Suspension, Withdrawal, or Cancellation

STEDA may suspend, withdraw, or cancel the approval/accreditation of any institution if:

- False or misleading information is provided.
- Required standards are not maintained.
- Serious non-compliance is identified during monitoring.
- Assessment procedures are compromised.
- STEDA directives are not implemented within the prescribed timeframe.

The institution may be required to cease further admissions until compliance is restored.

4. Course Outlines Recommended for Bridging Program

Course 01. Curriculum Development and Implementation

Credit Value:	3 Credits
Course Type:	Foundation Course

Course Description

This course provides a comprehensive understanding of curriculum development, implementation, and evaluation in contemporary educational contexts. It explores philosophical, psychological, social, economic, and political determinants shaping curriculum decisions. Students examine major curriculum theories, design patterns, and models, along with national and international curriculum frameworks. Emphasis is placed on curriculum change, contextual relevance, and alignment of objectives, content, learning experiences, and assessment. The course also addresses technology integration, inclusive and special programs, and emerging global trends. Through analytical tasks and practical applications, students develop competencies to design, analyze, and improve curriculum for diverse learners and educational levels.

Course Outcomes:

By the end of the course, students will be able to:

1. Explain key concepts, forms, determinants, and theoretical foundations of curriculum.
2. Analyze curriculum aims, objectives, content, and learning experiences using established taxonomies and standards.
3. Compare and evaluate major curriculum designs and development models in local and global contexts.
4. Critically examine curriculum development processes and challenges in Pakistan and internationally.
5. Design and analyze unit plans and curriculum components aligned with learner needs, standards, and contemporary trends.

Learning and Teaching Approaches:

The course adopts a student-centered, inquiry-based, and reflective learning approach. Instructional strategies include interactive lectures, guided discussions, case studies, document analysis of curriculum frameworks, group work, and presentations. Comparative and reflective tasks encourage critical thinking and contextual understanding. Practical activities such as unit planning, curriculum analysis, and technology-based design tasks bridge theory with practice. Formative assessment through quizzes, reflections, and peer feedback supports continuous learning, while summative assignments emphasize analytical and applied competencies aligned with real educational contexts.

Semester Outline

Week	Session Title and Brief Description [Pedagogy and suggested content/ concepts]
1	Introduction to Curriculum <ul style="list-style-type: none">• Concept and definitions of curriculum: traditional vs. progressive views• Forms of curriculum: formal, non-formal, informal, hidden, and null Planned vs. received curriculum and their implications
2	Philosophical and Psychological Determinants <ul style="list-style-type: none">• Historical and philosophical foundations of curriculum• Psychological determinants of learning Piaget's stages of cognitive development and curriculum relevance

3	Social, Economic, Political, and Cultural Determinants <ul style="list-style-type: none"> • Society and culture as curriculum shaping forces • Political and economic influences on curriculum decisions Knowledge as a determinant and principles for content selection
4	Essential Elements of Curriculum <ul style="list-style-type: none"> • Educational objectives and their significance • Understanding Standards, benchmarks, competencies, themes, and SLOs Bloom’s Taxonomy and formulation of objectives
5	Classification of Educational Objectives <ul style="list-style-type: none"> • Curriculum aims, goals, and objectives • Cognitive, affective, and psychomotor domains Alignment of objectives with teaching and assessment
6	Patterns/Approach of Curriculum Design <ul style="list-style-type: none"> • Subject-centered curriculum design • Learner-centered and experience-centered approaches Core and broad-fields curriculum designs
7	Models of curriculum: <ul style="list-style-type: none"> • Tyler’s Objectives (Linear) Model • Taba’s Grassroots Model Wheeler’s Cyclic, Obanya’s Lino-cyclical, and Skilbeck’s Process Model
8	Mid-Term Exams
9	Curriculum Development Process <ul style="list-style-type: none"> • Stages and procedures of curriculum development • Roles of stakeholders and curriculum bodies Implementation and feedback mechanisms
10	Curriculum Development in Pakistan <ul style="list-style-type: none"> • Curriculum change and reform issues in Pakistan • National curriculum development process Curriculum at ECCE, primary, and secondary levels
11	Global Perspectives on Curriculum Implementation <ul style="list-style-type: none"> • Comparative curriculum studies Country-based curriculum analysis and presentations
12	Technology in Curriculum Development <ul style="list-style-type: none"> • Digital tools and platforms for curriculum design • Integrating technology into teaching and learning Curriculum alignment with digital competencies
13	Curriculum for Special Programs <ul style="list-style-type: none"> • Curriculum for special needs education • Curriculum for gifted and talented learners Inclusive and differentiated curriculum practices
14	Current Trends and Innovations <ul style="list-style-type: none"> • Emerging global trends in curriculum development • Competency-based and interdisciplinary approaches Innovative and future-oriented curriculum practices
15	Unit Planning and Curriculum Application <ul style="list-style-type: none"> • Components of an effective unit plan • Analysis of unit plans using curriculum theories Addressing common misconceptions and alignment issues
16	Final Term Exams

Course 2. Educational Assessment & Evaluation

Credit Value:	3 Credits
Course Type:	Professional Courses

Course Description

This course equips student teachers with essential knowledge and practical skills to design, implement, and evaluate classroom assessments and achievement tests aligned with learning objectives and national standards. Emphasis is placed on classroom-based formative assessment, systematic test construction, item analysis, and ethical evaluation practices. The course integrates Bloom's and SOLO taxonomies, principles of validity and reliability, and value-added evaluation approaches to improve teaching and learning outcomes. Through hands-on tasks, reflective practice, and real classroom data, student teachers will learn to use assessment evidence to enhance instructional decisions, learner progress, and professional accountability in line with the National Professional Standards for Teachers (NPSTs).

Course Outcomes:

By the end of this course, student teachers will be able to:

1. Differentiate between assessment, testing, measurement, and evaluation in classroom contexts
2. Design classroom assessments aligned with learning outcomes
3. Construct valid and reliable achievement tests using tables of specifications
4. Analyze test items using difficulty, discrimination, and fairness indices
5. Use assessment evidence and feedback to improve student learning and instructional practice

Learning and Teaching Approaches:

This course adopts an interactive, practice-oriented approach combining short lectures, guided discussions, hands-on workshops, and peer learning. Student teachers will engage in authentic assessment tasks such as lesson-embedded assessment design, rubric construction, test development, and item analysis using real classroom examples. Micro-teaching, peer review, reflective journals, and case-based learning will be used regularly. Digital tools for assessment and basic data analysis will be introduced where appropriate. The course emphasizes continuous formative feedback to support reflective practice and professional growth, ensuring strong integration between theory, classroom practice, and teacher licensing requirements.

SEMESTER OUTLINE

Week	Session Title and Brief Description [Pedagogy and suggested content/ concepts]
1	Week 1 – Understanding Assessment in Teaching <ul style="list-style-type: none"> • Measurement, testing, assessment, and evaluation • Formative vs summative assessment • Role of assessment in teaching and learning • NPST assessment standards
2	Week 2 – Classroom Assessment Culture <ul style="list-style-type: none"> • Assessment practices in Pakistan • Test-based vs assessment-based classrooms • Cultural and ethical considerations • Teacher responsibility in assessment
3	Week 3 – Assessment Targets and Learning Objectives <ul style="list-style-type: none"> • Characteristics of a Good Test • Learning outcomes vs assessment targets • Criteria for success (Criterion/Norm reference assessment) • Aligning objectives, instruction, and assessment • Lesson-embedded assessment
4	Week 4 – Feedback that Improves Learning <ul style="list-style-type: none"> • Purpose and types of feedback • Growth mindset and motivation

	<ul style="list-style-type: none"> • Characteristics of effective feedback • Oral and written feedback strategies
5	Week 5 – Taxonomies for Assessment Design <ul style="list-style-type: none"> • Bloom’s Taxonomy (cognitive levels) • SOLO Taxonomy (learning complexity) • Matching objectives with assessment tasks
6	Week 6 – Measuring Reliability and Validity <ul style="list-style-type: none"> • Types of reliability • Threats to validity • Classroom examples and calculations
7	Week 7 – Planning an Achievement Test <ul style="list-style-type: none"> • Purpose of testing • Types of classroom tests • Review and Develop a Table of Specifications (TOS)
8	Mid-Term Exams
9	Week 9 – Writing Quality Test Items <ul style="list-style-type: none"> • MCQs: structure, distractors, common flaws • Short-answer questions • True/false and matching items
10	Week 10 – Constructing Essay Questions <ul style="list-style-type: none"> • Essay question types • Scoring rubrics • Model answers and marking schemes
11	Week 11 – Item Analysis <ul style="list-style-type: none"> • Difficulty index • Discrimination index • Bias and fairness • Improving weak items
12	Week 12 – Performance-Based Assessment <ul style="list-style-type: none"> • Projects and assignments • Rubrics and scoring criteria • Portfolios as assessment tools
13	Week 13 – Alternative and Continuous Assessment <ul style="list-style-type: none"> • Classroom observation • Peer and self-assessment • Oral questioning and interviews
14	Week 14 – Computer-Assisted Assessment <ul style="list-style-type: none"> • Digital assessment tools • Online quizzes and LMS-based testing • Generating parallel test forms
15	Week 15 – Evaluation and Accountability <ul style="list-style-type: none"> • Concept of evaluation • Value-added evaluation • Teacher and course evaluation • Textbook evaluation • Teacher Licensing-oriented assessment readiness
16	Final Term Exams

Course 3. ICT and AI in Education

Credit Value:	3 Credits
Course Type:	Professional Courses

Course Description

This course develops student teachers' capacity to effectively integrate Information and Communication Technologies (ICT) and emerging Artificial Intelligence (AI) tools into teaching, learning, and assessment. Building on foundational computer literacy, the course emphasizes pedagogical use of digital tools rather than technical programming. Student teachers will explore national education priorities, ethical and responsible use of AI, technology-supported active learning, digital content evaluation, and classroom assessment using technology. Through hands-on practice, lesson design, and school-based applications, the course prepares future teachers to become digitally competent, reflective, and future-ready professionals aligned with National Professional Standards for Teachers (NPSTs).

Course Outcomes:

By the end of this course, student teachers will be able to:

1. Integrate ICT tools to enhance teaching, learning, and assessment
2. Use digital resources critically and ethically for instructional planning
3. Design technology-supported active learning activities
4. Apply basic AI tools responsibly to support teaching and assessment
5. Demonstrate professional digital competence aligned with NPSTs

Learning and Teaching Approaches:

The course adopts a hands-on, practice-based learning approach combining demonstrations, guided workshops, micro-teaching, and reflective activities. Student teachers will actively use productivity tools, learning management systems, digital content platforms, and basic AI applications in lesson planning and classroom simulations. Peer learning, collaborative tasks, and school-based practice will be emphasized. Online resources, short video tutorials, and guided independent practice will support learning beyond contact hours. Ethical considerations, accessibility, and contextual constraints of Pakistani classrooms will be integrated throughout the course to ensure practical and responsible technology use.

Semester Outline

Week	Session Title and Brief Description [Pedagogy and suggested content/ concepts]
1	Week 1 – ICT in Education: Context and Purpose <ul style="list-style-type: none"> ● ICT and education: concepts and scope ● National education priorities and Digital Sindh ● NPSTs and teacher digital competence
2	Week 2 – Revisiting Computer Literacy for Teachers <ul style="list-style-type: none"> ● Productivity tools (Word, PowerPoint, spreadsheets) ● Email, cloud storage, and file management ● Professional digital communication
3	Week 3 – Technology for Teaching and Learning <ul style="list-style-type: none"> ● Teacher-centered vs learner-centered technology use ● Blended and flipped classroom concepts ● Examples from Pakistani classrooms
4	Week 4 – Digital Content Search and Evaluation <ul style="list-style-type: none"> ● Searching educational content effectively ● Evaluating credibility and relevance

	<ul style="list-style-type: none"> • Copyright, plagiarism, and fair use
5	Week 5 – Technology and Active Learning <ul style="list-style-type: none"> • Student engagement through technology • Multimedia learning principles Designing interactive lessons
6	Week 6 – Learning Management Systems (LMS) <ul style="list-style-type: none"> • Introduction to LMS (e.g., Google Classroom, MS Teams) • Managing content, assignments, and feedback • Teacher role in online learning spaces
7	Week 7 – Technology-Supported Instruction <ul style="list-style-type: none"> • Digital lesson planning • Integrating videos, simulations, and presentations • Universal Design for Learning (UDL) basics/TPACK
8	Week 8 – Mid-Term/ Mid-Course Reflection & Practice <ul style="list-style-type: none"> • Review of ICT integration strategies • Peer sharing of lesson designs
9	Week 9 – Technology and Classroom Assessment <ul style="list-style-type: none"> • Online quizzes and polls • Digital rubrics and feedback • Using assessment data to improve learning
10	Week 10 – Introduction to AI in Education <ul style="list-style-type: none"> • What AI is (and is not) for teachers • Examples of AI tools in education • Opportunities and limitations
11	Week 11 – AI for Teaching Support <ul style="list-style-type: none"> • AI for lesson planning and content generation • AI-assisted differentiation and feedback • Teacher control and professional judgment
12	Week 12 – Ethical and Responsible Use of AI <ul style="list-style-type: none"> • Academic integrity and bias • Data privacy and child protection • Ethical decision-making in AI use
13	Week 13 – Low-Tech and Alternative Technologies <ul style="list-style-type: none"> • Interactive Radio Instruction • Mobile-based learning • Teaching in low-resource contexts
14	Week 14 – Emerging Trends in Educational Technology <ul style="list-style-type: none"> • Mobile learning • Gamification • Open Educational Resources (OER)
15	Week 15 – School-Based Technology Integration& Review <ul style="list-style-type: none"> • Designing ICT-supported classroom activities • Adapting to school infrastructure realities • Reflective practice • Teacher licensing readiness • Future professional development pathways
16	Final Term Exams

Course 4. Research Methods in Education/Action Research

Credit Value:	3 Credits
Course Type:	Research & Professional Growth

Course Description

This course is designed to equip prospective and in-service teachers with both foundational knowledge and practical competencies in educational research, enabling them to become reflective practitioners and informed decision-makers. It introduces key concepts, paradigms, and approaches in educational research with a strong emphasis on their application in real classroom and school contexts. The course focuses particularly on classroom-based inquiry and action research, empowering teachers to systematically investigate teaching–learning challenges, assess student outcomes, and implement contextually relevant interventions. Participants will engage with quantitative, qualitative, and mixed-methods approaches, developing the ability to critically interpret research and apply appropriate methods to address educational problems. Special attention is given to ethical considerations, including informed consent, confidentiality, and responsible data use, ensuring that teachers conduct research with integrity and respect for participants. The course also integrates data literacy skills, enabling teachers to collect, analyze, and interpret classroom data (e.g., assessments, observations, student work) to inform instruction. Grounded in the educational realities of Sindh, the course encourages participants to explore local challenges such as diverse classroom settings, resource constraints, and language diversity. Through hands-on activities, collaborative learning, and guided research projects, teachers will design and implement small-scale action research studies, fostering continuous professional development. By the end of the course, participants will not only understand research concepts but will also be able to use research as a tool for improving teaching practices, enhancing student learning outcomes, and contributing to school improvement efforts.

Course Outcomes:

By the end of this course, participants will be able to:

1. Understand the nature and purpose of educational research
2. Differentiate between quantitative, qualitative, and mixed methods
3. Develop a research proposal relevant to classroom/school issues
4. Apply basic data collection and analysis techniques
5. Conduct small-scale action research ethically
6. Use research findings to improve teaching practices and learning outcomes

Learning and Teaching Approaches:

This course follows a learner-centered and practice-oriented approach, combining theoretical understanding with real classroom application. It is grounded in constructivist and experiential learning, encouraging participants to learn through active engagement, reflection, and collaboration. Teaching methods include interactive lectures, group discussions, and case studies from Sindh’s schools to connect theory with local contexts. A key feature is the mini action research project, through which participants apply research skills step-by-step, from problem identification to data collection, analysis, and reporting. The course emphasizes hands-on learning, including developing research tools and practicing basic data analysis techniques. Collaborative learning and peer feedback are integrated to enhance shared understanding and critical thinking. Reflective practice and ethical awareness are embedded throughout, ensuring responsible research conduct. Assessment is continuous and formative, focusing on practical tasks, presentations, and the final research report. Overall, the approach aims to develop teachers as reflective practitioners and practitioner-researchers who use evidence to improve teaching and learning.

Semester Outline

Week	Session Title and Brief Description [Pedagogy and suggested content/ concepts]
Week 1–2	Introduction to Educational Research <ul style="list-style-type: none"> • Meaning, nature, and scope of educational research • Importance of research for teachers • Research in the context of Sindh’s education system • Types of research: basic, applied, action research
Week 3–4	Introduction to Action Research <ul style="list-style-type: none"> • What is Action Research? • Historical development (Lewin, Kemmis& McTaggart) • Action research vs traditional research • Practitioner as researcher
Week 5–6	Philosophical Foundations of Action Research <ul style="list-style-type: none"> • Paradigms underpinning action research • Constructivism and pragmatism • Participatory and emancipatory research • Insider research
Week 7	Models and Cycles of Action Research <ul style="list-style-type: none"> • Action research cycle: Plan–Act–Observe–Reflect • Kemmis& McTaggart spiral model • Practical vs critical action research Individual vs collaborative action research
Week 8	Mis-Term Exams
Week 9	Identifying Problems & Research Questions <ul style="list-style-type: none"> • Characteristics of action research problems • Writing action research questions • Scope and feasibility & Context analysis
Week 10–11	Data Collection Methods in Action Research <ul style="list-style-type: none"> • Qualitative tools: observation, interviews, focus groups, reflective journals • Quantitative tools: surveys, checklists, tests • Triangulation in action research • Validity and trustworthiness
Week 12	Ethics and Reflexivity in Action Research <ul style="list-style-type: none"> • Ethical issues in practitioner research • Consent, confidentiality, and power relations • Reflexivity and positionality • Managing bias
Week 13–14	Data Analysis and Reflection <ul style="list-style-type: none"> • Basic qualitative data analysis (coding, themes) • Simple quantitative analysis (descriptive statistics) • Reflective models (Gibbs, Schön) • Linking reflection to action
Week 15	Writing and Reporting Action Research <ul style="list-style-type: none"> • Structure of an action research report • Writing reflective narratives • Presenting cycles and outcomes • Using findings for improvement
Week 16	Action Report Submission and Presentation (60% Marks)

Action Research Report/ Assessment Guidelines	<p>Prepare an Action Research Report based on a real classroom or institutional issue encountered during participants’ teaching practice. Participant’s report should follow a systematic inquiry approach and demonstrate reflective practice, professional learning, and evidence-based improvement.</p> <p>The action research report should contain the following:</p> <ol style="list-style-type: none"> 1. Title and Context 2. Problem Identification 3. Objectives / Research Questions 4. Methodology 5. Intervention / Action Taken 6. Data Collection and Analysis. 7. Findings / Results 8. Reflection 9. Conclusion and Recommendations 10. Formatting and Submission <ol style="list-style-type: none"> a. Keep it concise (usually 2000–4000) b. Use clear headings and academic tone c. Check grammar, citations, and referencing style d. Attach supporting documents (tools, data samples) if required <p>Marking Scheme:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Components</th> <th style="text-align: center;">Marks</th> </tr> </thead> <tbody> <tr> <td>Assignments</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Attendance</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Mid term</td> <td style="text-align: center;">20</td> </tr> <tr> <td>Action Report Submission + Presentation</td> <td style="text-align: center;">50+10=60</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>	Components	Marks	Assignments	10	Attendance	10	Mid term	20	Action Report Submission + Presentation	50+10=60	Total	100
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Total	100												

Course 5 & 6. Specialization PCK Courses

Credit Value:	6 Credits (Any 2 Courses)
Course Type:	Professional Courses

NOTE: All Specialization PCK courses can be adopted from the STEDA already notified course on the following official website of STEDA:

Specialization PCK Courses	6. Pedagogical Content Knowledge (English/ Urdu/ Sindhi/ Biology/ Chemistry/ Physics /Math/ Social Science)
Official Link to Download	https://admin.steda.gos.pk/Downloads/B.Ed_1.5_Specialization_Courses_PCK_I-II_utlines_merged_final.pdf

5. Working Committees for Bridging Course Program

The development and operationalization of the Bridging Course Programme were undertaken through a structured institutional process involving a series of specialized committees constituted by the Sindh Teacher Education Development Authority (STEDA). Each committee was assigned specific responsibilities to ensure the academic soundness, regulatory compliance, stakeholder consultation, quality assurance, and effective implementation of the programme. Collectively, these committees played a pivotal role in the development, review, validation, approval, accreditation, and

finalization of the Bridging Course Mechanism. The composition and responsibilities of these committees are presented below.

1. Academic Council Sub-Committee:		
1. Dr Fouzia Khan	– Chairperson / Convener	
2. Dr Kiran Hashmi	– Member	
3. Dr Maroof bin Rauf	– Member	
4. Mr Rasheed Ahmed Channa	– Member	
5. Dr Razia Faqir	– Co-opted Member	
6. Dr Rabia Nouman	– Co-opted Member	
7. Dr Aalumgir Shah	– Co-opted Member	
2. STEDA Expert Review Committee		
1. Dr Fouzia Khan,	Chief Executive Advisor, SE&LD	
2. Dr. Razia Faqir,	HoD Education IU	
3. Mr Zainul Abidin Laghari,	Director TL (STEDA)	
4. Mr. Rasheed Ahmed Channa,	Educationist	
5. Dr Rabia Nauman,	Assit. Professor, AKU-IED	
6. Dr AalumgirShah,	Assistant Director STEDA	
3. Consultative Committee of STEDA, PITE and TTIs		
1. Mr Inayatullah Shaikh, The Additional Director, TTIs Sindh Hyderabad.		
2. Mr. Shuhab Mallah, Director General, PITE, Sindh		
3. Mr Zainul Abidin Laghari, Director Teaching License, STEDA		
4. Other Members from STEDA, PITE, and TTI		
4. Academic Council Authorize Committee for Finalization of Program		
1	Dr Sajid Ali	Director AKU-IED
2	Dr Kiran Hashmi	HoD, Education IoBM
3	Ms Salma Alam	CEO, Durbeen
4	Mr Zainul Abidin Laghari	Director TL, STEDA
4	Dr Aalumgir Shah	Assistant Director STEDA
5	Ms Aneela Katbar	Assistant Director STEDA
5. Joint Committee for Course Development		
1	Mr Zaheer Abbas Chaang	PITE
2	Dr Nisar Dhari	PITE
3	Mr Athar Raza	TTI
4	Mr Muhammad Imran Pathan	TTI
5	Dr Aalumgir Shah	STEDA
6	Ms Aneela Katbar	STEDA
6. Accreditation Team STEDA		
	Mr. Noor Ahmed Soomro	Director STEDA
	Mr. Zainul Abidin Laghari	Director STEDA
	Mr. Rasheed Ahmed Channa	Educationist
	Mr. Muhammad Iqbal	Deputy Director STEDA
	Dr. Parveen Akhtar	Deputy Director STEDA
	Mr. Vijay Sharma	Assistant Director STEDA
	Mr. Shakeel Ahmed	Assistant Director STEDA