Tribhuvan University

Faculty of Education

Postgraduate Diploma in Education (PGDE)

Second Semester Curriculum

Tribhuvan University

Faculty of Education

Office of the Dean

Balkhu, Kathmandu

2081, Chaitra

(April, 2025)

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Courses of Postgraduate Diploma in Education (PGDE) Second Semester

Course Category	Course Title	Theory	Practical
Core Course	Ed. 481: Assessment for Learning	3 Credits	
	Ed. 482: Application of Information and Communication Technology (ICT)	2 Credits	1 Credit
Elective Courses	El. Ed. 493 Guidance and Counselling	3 Credits	
	El. Ed. 494 Inclusive Education and Classroom Management	3 Credits	
	El. Ed. 495 Application of Arts in Education	2 Credits	1 Credit
Subjective Specific Teaching Method Courses	Eng. Ed. 491 Classroom Practice in ELT	2 Credits	1 Credit
	Math. Ed. 491 Pedagogy of Mathematics II	2 Credits	1 Credit
	H. Ed. 491Teaching Health Education	2 Credits	1 Credit
	Eco. Ed. 491 Teaching Economics	2 Credits	1 Credit
	Sost. Ed. 491 Teaching Social Studies-II	2 Credits	1 Credit
	IPM. Ed. 491 Supervised Teaching	2 Credits	1 Credit
	Sc. Ed. 491 Teaching Biology and Environment Science	2 Credits	1 Credit
	Sc. Ed. 492 STEAM Education for Science Teachers	2 Credits	1 Credit
	नेपा. शि. ४९१ नेपाली भाषाशिक्षण — २	2 Credits	1 Credit
	ICT. Ed. 491 Teaching Information and Communication Technology- II	2 Credits	1 Credit

Table of Contents

Introduction

The Faculty of Education, Tribhuvan University, has been producing qualified and trained teachers and teacher educators in Nepal for more than five decades. Among its various programs, the Bachelor's degree in education (B.Ed.) aims to produce qualified and trained teachers for school education. The Bachelor of Education (B.Ed.), organized and certified by the Faculty of Education (FoE) at Tribhuvan University (TU), has undergone changes over time to meet the evolving needs and demands of the country. Prior to 1996, a Two-Year B.Ed. program with a single area specialization was in practice for several years. In response to feedback regarding the perceived inadequacy of pedagogical knowledge and skills among graduates from the two-year B.Ed. program in terms of content mastery, the program's duration was extended to three years with a single area specialization starting from 1996.

Since 2016, a Four-Year B.Ed. program with a two-area specialization has been implemented, aligning with the requirements of schools and the Ministry of Education. This four-year B.Ed. initiative represents an integrated undergraduate program that encompasses theoretical courses across various subject areas, including English, Nepali, Science, Mathematics, History, Political Science, Economics, Geography, Population, Social Studies, Health, Physical Education, Special Needs Education and Bachelor in Information and Communication Technology Education (BICTE). Additionally, this program incorporates core professional courses that include teaching practicum.

In retrospect, the Faculty of Education introduced a 12-month Bachelor of Education (One-Year B.Ed.) Program through the College of Education, established by the Government in 1956 to pioneer teacher education and training programs for the country. The students with a bachelor's degree in any discipline were eligible for enrollment in the One-Year B.Ed. Program. Over the past two decades, the One-Year B.Ed. Program faced widespread criticism from various sectors due to deficiencies in its implementation process, including ineffectively organized practicum component. The program struggled to produce trained teachers, fostering essential pedagogical skills among the graduates.

In response, the Faculty of Education, under the decision of the Academic Council of Tribhuvan University, terminated the One-Year B.Ed. Program in 2021. Subsequently, an eighteen-month

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

(Three-Semester) Post-Graduate Diploma in Education has been developed and introduced in 2023 as a replacement for the traditional one-year B.Ed. program.

Rationale for Postgraduate Diploma in Education

Teaching is a dynamic profession that requires a specialized teacher preparation program. Teacher education is designed and revised for a process of professional preparation of teachers to move candidate along a path of acquiring knowledge of human development, learning theories related to classroom instruction, curriculum development and assessment on the top of the subject specific content knowledge. Professional preparation requires a long period of academic training and rigorous professional training in tandem with hands-on practical experiences in schools as well as a code of professional ethics. However, traditional one-year B.Ed. program seems to have outlived it relevance due to its inadequacy for effective student-centered and practical approaches to preparing teachers.

With the proliferation of the affiliated Campuses throughout the country, quality of teacher education program, including the one-year B. Ed, has been gradually declined and the programs have been criticized for inadequately addressing the needs of learners and curricula and not preparing professional teachers to make teaching student-centered, relevant and practical. The one-year program is criticized for effectively organized lessons in a regular basis with teaching practice in schools as a formality only. This conventional model largely criticized for the transmission of textbook knowledge and information from teachers to students. Consequently, the emphasis on teaching practice aims to familiarize future educators with this conventional approach, which prioritizes the dissemination of information through textbooks as a fundamental method of imparting knowledge to students. Existing B.Ed. program have become weak both in theory and practice. Education campuses/colleges have been criticized for being grounds of academic stagnation and resistance to change. In this context, there is a dire need to critically review the existing teacher education programs under FoE and revise traditional (one-year) B.Ed. Program.

The Post-Graduate Diploma in Education (PGDE) is a renewed and revised teacher education program for various subject tracks that is required to complete in three semesters (18 months). This program has replaced the earlier 12-month traditional one-year B.Ed. Program. Upon completion of theorical and practical courses of PGDE in campus, student teachers will participate in internship in the selected schools for at least six months. In this way, the PGDE program is designed to meet the professional development needs of teachers in upper Basic and Secondary Schools by

employing critical and participatory pedagogy, engaging students in hands-on practical activities and utilizing digital technologies.

The PGDE program intends to provide pedagogical training for students who hold educational qualification of bachelor's degree or equivalent and who are teaching at the basic and secondary level. This is a basic teacher training that sensitizes and orients teachers/prospective teachers to the fundamentals of their profession. It emphasizes on professional educational practices with a solid theoretical base in the foundation disciplines, curriculum, instructional design and methodology. It is also expected that prospective teachers will improve their skills in the specific content relevant to teaching in their subject areas and that administrators would increase their ability to manage their schools as an educational institution of quality.

Teaching is a dynamic profession that requires specialized courses and programs to prepare qualified and trained teachers. Teacher education programs are devised and revised to professionally prepare teachers, guiding candidates in acquiring knowledge concerning human development, learning theories relevant to classroom instruction, curriculum development, assessment techniques, and subject-specific content knowledge. Professional preparation demands extensive academic training, rigorous professional development alongside practical experiences in schools, and adherence to a code of professional ethics.

The one-year B.Ed. program appears to have lowered its relevance, as it requires to adapt to the evolving demands of professional preparation. Along with the proliferation of affiliated campuses across the country, the quality of teacher education programs, including the one-year B.Ed. programs, started to decline gradually. These programs faced criticism for their inadequacy to meet the needs of school curricula and their inability to prepare teachers capable of delivering quality education. The programs are often criticized for being teacher-centric and transmitting bookish knowledge to students. In addition, the one-year B.Ed. programs have been criticized for being deficient in both theory and practice, fostering academic stagnation and resistance to change within education campuses and colleges.

In this context, there exists a pressing need to critically evaluate the existing teacher education programs under the Faculty of Education (FoE) and revise the one-year B.Ed. Program. To respond to this need, the Postgraduate Diploma in Education (PGDE) is prepared as a revised teacher education program, addressing the existing learning needs of diverse students.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

The duration of new PGDE program is 18 months, replacing the earlier 12-month one-year B.Ed. Program. Upon completion of theoretical and practical coursework of PGDE programs at the campus, the prospective teachers will engage in a teaching internship at selected schools for a minimum of four months as part of the PGDE Program. This program is crafted to address the professional development requirements of teachers in upper Basic and Secondary Schools, involving prospective teachers in practical activities, and helping them to employ critical and participatory pedagogy, and integrating digital technologies.

The PGDE program aims to provide pedagogical training to individuals holding a bachelor's degree or equivalent, prospective teachers and currently teaching at the basic and secondary levels. The program serves as fundamental teacher training, sensitizing and orienting teachers/prospective teachers to the core aspects of their profession. Emphasis is placed on professional educational practices grounded in foundational disciplines, curriculum, instructional design, and methodology. The program also aims to enhance the specific content skills relevant to teaching within subject areas and to improve the managerial capabilities of administrators in running high-quality educational institutions.

Program Goals and Objectives

The main goal of PGDE is to produce qualified teachers for schools in Nepal, with professional training and hands-on experience of teaching in schools. With pedagogical skills, the graduates are expected to grow professionally with creativity, imagination and the pursuit of professional and personal development. The goal of the program is to equip graduates with pedagogical knowledge and skills, with expertise of at least two subjects as subject specialist who could cater the learning and assessment needs of students at the school level. This expertise consists of effective strategies for the planning, conducting and evaluating of teaching students of the given school subjects, and plan and conduct continuous and periodic assessment of learning of the students. In addition, the teacher will continuously grow as a professional by doing action research and contributing to school education by both transmitting and producing knowledge.

Objectives

- Make annual, unit and daily plans for teaching and assessment as required by the curriculum.
- Employ efficient strategies to plan, execute, and assess the teaching of designated school subjects.

- Gain comprehensive expertise and competencies necessary for effectively teaching specific subjects.
- Develop curricula and classroom instruction strategies, incorporating diverse methodologies and assessment models that meet predefined standards.
- Integrate suitable teaching methodologies and instructional techniques tailored to the subject matter being taught.
- Utilize acquired knowledge, skills, and ethical values inherent to the teaching profession in real-world teaching scenarios.
- Create and sustain an optimal learning environment within the classroom that fosters student growth and learning.
- Exhibit proficiency in critical thinking skills and engage in reflective practices to enhance teaching methodologies and personal development.
- Demonstrate proficiency in educational administration, showcasing aptitude and expertise in administrative tasks within educational settings.
- Illustrate continuous professional growth by embodying competence, adhering to values, engaging in reflective practices, and conducting self-evaluation.
- Demonstrate proficiency in adapting to the dynamics of school and classroom environments, including adeptness in interpersonal relations, effective communication, and practical knowledge of action research through the successful execution of portfolios, projects, or assignments.
- Plan and execute co- and extracurricular activities within and beyond the school environment.

Program Structure

The Postgraduate Diploma in Education (PGDE) constitutes a rigorous three-semester (18 months) full-time academic program. Graduation from the program necessitates a minimum of 39 credits, including a mandatory teaching internship accounting for 9 credits. In the curriculum, there are five core courses, distributed across three in the first semester and two in the second semester. Additionally, students are required to choose four courses focusing on subject-specific pedagogy—two in the first semester and two in the second semester—aligned with the subjects they pursued during their Bachelor's Degree studies. Furthermore, the second semester offers three elective courses, with students mandated to select only one elective course. Notably, the internship course,

valued at 9 credits, is scheduled for the third semester. The structured outline of the Three-Semester PGDE course can be found in Table 1 below.

Table 1: Course Structure of Postgraduate Diploma in Education (PGDE)

Semester	Nature Course	Course Code	Course Title	Credit Hours	Total
First Semester	Core Courses	Ed. 461	Educational Philosophy and Curriculum Development	3	15
		Ed. 462	Social and Educational Psychology in Classroom	3	
	Pedagogy Courses	Sp. Ed. 471	Subject A – Pedagogy I (Theory + Practical)	2+1	
		Sp. Ed. 471/472	Subject B – Pedagogy I (Theory + Practical)	2+1	
	Applied Course	Ap. Ed. 463	Yoga and Physical Activity for Health Promotion (Theory + Practical)	2+1	
Second Semester	Core Courses	Ed. 481	Assessment for Learning	3	12
		Ed. 482	Application of Information and Communication Technology (ICT) (Theory + Practical)	2+1	
	Pedagogy Courses	Ed. 491	Subject A – Pedagogy II (Theory + Practical)	2+1	
		Ed. 491/492	Subject B – Pedagogy II (Theory + Practical)	2+1	
	Elective Courses (Any One Course)	El. Ed. 493	Guidance and Counselling	3	3
		El. Edu. 494	Inclusive Education and Classroom Management	3	
		El. Ed 495	Application of Arts in Education (Theory + Practical)	2+1	

Third Semester	Teaching Internship	Ed. 496	Practicum - (Lesson Plan, Micro Teaching and Teaching Students in Schools)	3	9
		Ed. 497	Project Work - Material Development, Testing and Learning Improvement Plan (LIP) (Analytical Report)	2	
		Ed. 498	Organization of Extra/cocurricular Activities and School Report on Inclusive Classroom Management (Report)	2	
		Ed. 499	Seminar in Reflective Practice and Teacher Development	2	

There are five core courses, three in first semester and two in second semester. Student should select and study four courses of subject specific pedagogy (two in first and two in second semester) based on relevant subjects that they studied in their Bachelor's Degree. There are three elective courses in second semester. Students must select only one elective course. Internship course worth 9 credits is in the third semester.

Group Division of Courses

Courses related to subject specific pedagogy have been divided into three groups. Each student can choose two courses from two groups (one from one group) in the first semester and two courses from two groups (one from one group) in the second semester.

Group A	Group B	Group C
Nepali Education	Mathematics Education	Inclusive Education
English Education	Social Studies Education	

Economics Education	Geography Education	Instructional Planning and Management
Health Education	History Education	
Science Education I	Population Education	
ICT Education	Political Science Education	
	Physical Education	
	Science Education II	

Students shall take the following core courses in the first semester:

i) **Take three core courses in First Semester**

Ed. 461 Educational Philosophy and Curriculum Development

Ed. 462 Social and Educational Psychology in Classroom

Ap. Ed. 463 Yoga and Physical Activity for Health Promotion (Theory and Practical)

ii) **Take subject two courses of subject specific (specialization) pedagogy in the First Semester)**

Sp. Ed. 471 Subject A – Pedagogy I

Sp. Ed. 471 Subject B – Pedagogy I

iii) **Take two courses from same subject areas in science education in the First Semester**

Sp. Ed. 471 Science Pedagogy I

Sp. Ed. 472 Science Pedagogy II

iv) **Take two core courses in Second Semester**

Ed. 481 Assessment for Learning

Ed. 482 Application of Information and Communication Technology (ICT)

v) **Take in two core courses of subject specific (specialization) pedagogy in the Second Semester**

Sp. Ed. 491 Subject A – Pedagogy II (Theory + Practical)

Sp. Ed. 491 Subject B – Pedagogy II (Theory + Practical

vi) **Take two courses from same subject areas in science education in the Second Semester**

Sp. Ed. 491 Science Pedagogy II

Sp. Ed. 492 Science Pedagogy II

vii) **Take only course from three elective courses in the Second Semester**

El. Ed. 493 Guidance and Counselling

El. Ed. 494 Inclusive Education and Classroom Management

El. Ed. 495 Application of Arts in Education

viii) **Take teaching internship courses in the Third Semester**

Teaching internship is an integral part of the PGDE. Course. After completing courses of first and second semester, the students will be sent to the selected school for at least four months with aim to provide them with hands on teaching experiences related to subject specific courses by applying theoretical knowledge and methodological skills learned from first and second semester courses to classroom teaching.

Ed. 496 Practicum - (Lesson Plan, Micro Teaching and Teaching Students in Schools)

Ed. 497 Project Work - Material Development, Testing and Learning Improvement Plan (LIP) (Analytical Report)

Ed. 498 Organization of Extra/cocurricular Activities and School Report on Inclusive Classroom Management (Report)

Ed. 499 Seminar in Reflective Practice and Teacher Development

Eligibility for the Admission

To be eligible for the admissions to PGDE Program, the candidates must have graduation (bachelor's degree) in any disciplines from Tribhuvan University or recognized university. In addition, they need subject specific requirements for the admission in different subject specialization areas which are as follows:

Table 2: Eligibility Criteria for the Admission to PGDE in Different Subject Areas

S. N.	Subjects offered in PGDE	Students seeking admission to PGDE must have Bachelor's degree in following discipline/subjects
1	Science Education	BSc, BSc. Ag., BSc Forestry, BSc. Environmental Science
2	Math Education	BA Math, BSc Math, BSc CSIT, BCA, Computer Engineering, Civil Engineering
3	English Education	BA with major English
4	Nepali Education	BA with Major Nepali
5	IPM Education	Bachelor's Degree in any Discipline
6	ICT Education	BSc CSIT, BCA, BIT, BIM, Computer Engineering,
7	Economics Education	BA with Economics, BBS/BBA
8	Social Studies Education	BA with History or Economics or Political Science or Geography, Rural Development, Sociology/Anthropology, Social Work, BBS and Bachelor Degree in any discipline with teaching experiences in Social Studies at the school
9	History Education	BA with History
10	Geography Education	BA with Geography or Environmental Science
11	Political science Education	BA with Political Science or Law
12	Population Education	BA with Population/Demography, Geography, Environmental Studies
13	Health Education	Bachelor of Public Health, Bachelor in Nursing, Bachelor in health-related profession, and Bachelor in Sport Science, Bachelor in any disciplines with work experiences in health-related fields
14	Physical Education	Sport Science, Bachelor in any subject with training/experience in sports
15	Inclusive Education	Bachelor in any disciplines

Delivery Modes of PGDE Program

The Courses of PGDE Program will be delivered through face-to-face mode and blended mode for instruction and learning.

शैक्षिक परिषदको कार्यालय

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Face-to-Face Mode of Teaching and Learning

The courses of PGDE will be delivered in traditional face-to-face mode in all constituents and affiliated campuses that have obtained an approval from Faculty of Education, Office of the Dean and Academic Council of Tribhuvan University for running selected courses of PGDE. In this delivery mode, all teaching and learning occurs in a face-to-face context, on the selected campuss.

Blended Mode of Teaching and Learning

A blended mode combines online learning elements such class presentation using MS team and Moodle learning management system, videos and online forums and face-to-face elements such practical activities, project, field work, laboratory sessions, practicum and teaching practices. Blended courses are divided into online learning (off campus) and face-to-face learning components (on campus)

In blended mode, delivery of teaching and learning activities, including communication, learning activities, resources and assessments occurs predominantly online learning mode in virtual class. This may include 10 weeks of online learning.

Face-to-face mode for learning will be held on campus in real classroom or laboratory sessions. On campus activities may include two weeks, one week at the beginning of the semester and another one week at the end of the first and second semester.

Instructional Techniques

The instructional techniques in PGDE program includes several methods and strategies such as class lecture, presentation, group discussion, demonstration, project work, field/school visit, etc. In addition, workshop, seminars, case analysis, problem solving, and inquiry approaches will be used as specific instructional techniques for the effective delivery of courses. Technology integration and digital pedagogy should be applied to teaching learning process for the blended modes of teaching and learning.

Attendance

Students are required to regularly attend all theory and practical classes, assignments, seminars and presentations for both online and face-to-face modes as required by the course. A student is required to attend at least 80 percent of such activities in order to qualify for the semester examination.

Teaching Internship

Teaching Internship/Practicum (TP) is an integral part of the Postgraduate Diploma in Education. It provides opportunities for students to put theory into classroom practice. It takes place in school classroom of grade 6-10. Students are required to complete a 12-week (Four weeks on campus and 9-10 weeks in the assigned schools) in the third semester under the Faculty/subject teacher' internship supervisor. Micro-teaching practice will be conducted by the concerned Department in their campus. Students who are enrolled in the blended mode will participate in micro-teaching practice through online learning under supervision of the subject teacher for weeks and must engage in real classroom teachings of the selected schools. During period 9-10 week of the internship, each student is required to complete teaching practicum, project work, and conduct extracurricular activities in schools. The intern supervisors will assess the performance of students teaching practice through formative and summative assessment, taking into consideration students' professional behaviour and attitude.

Evaluation Scheme

The evaluation scheme includes internal evaluation and external evaluation. The internal evaluation and external evaluation carry respectively 40% and 60% of the total weightage (unless stated otherwise in detailed course contents of some courses). The students must pass separately in both types of evaluation. The external evaluation will be conducted by the Examination Section, Office of the Dean, Faculty of Education through a final written examination at the end of the semester. Besides core theoretical core courses of 3 credits, every practical based core course and specialization course contains 2 credit theoretical and 1 credit practical activities. The evaluation of theoretical and practical activities would be separate and needs to be passed separately and total marks secured in theoretical and practical activities would be added within the same full marks then considered for the result.

Make up/Retake Exam

Make up/Retake examination will be conducted as per the semester guideline 2074 and decisions of Academic Council of Tribhuvan University.

Grading System

The final evaluation of students is done through the examination conducted by Tribhuvan University. The performance of a student will be indicated on a four -point scale ranging from 0 to

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

4. The passing grade of an individual paper for the semester-end examination will be grade "B minus" or GPA of 2.7 (55%). Students must secure a minimum of grade 'B-' or Grade Point Average (GPA) of 2.70 in the internal evaluation in order to qualify to appear in the semester examination. In order to pass the semester examination, the student must secure a minimum of grade 'B-'or the Cumulative Grade Point Average (CGPA) of 2.70. The overall grade of a student will be determined by the student's performance indicated by the in-semester and semester-end examinations. The Letter Grade, GPA, percentage equivalent and performance remarks for the PGDE program are presented in Table 3.

Table 3: Grading System

Letter Grade	GP	SGPA / CGPA Range	Percentage Equivalent	Remarks
A	4	4	90 and above	(Distinction) Outstanding
A-	3.7	3.70 to 3.99	80-89.9	(First Division) Excellent
B+	3.3	3.30 to 3.69	70-79.9	(First Division) Very Good
B	3.0	3.00 to 3.29	60-69.9	(Second Division) Good
B-	2.7	2.70 to 2.99	50-59.9	(Third Division) Satisfactory
F	0	Below 2.70	Below 50	Fail

Note: GP: Grade Point, SGPA: Semester Grade Point Average, CGPA: Cumulative Grade Point Average

Graduation/Award of Degree

The students completing all the requirements for the degree will be awarded a degree of "Postgraduate Diploma in Education".

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Core Courses

Ed. 481 Assessment for Learning

Ed. 482 Application of Information and Communication Technology (ICT)

Course Title: Assessment for Learning

Course Code: Ed.481 **Nature of Course**: Theory

Level: PGDE **Credit Hours**: 3

Semester: Second **Teaching Hours**: 48

---

1. Course Description

This course is designed for the second semester of Post Graduate Diploma in Education with the aim of developing the knowledge and skill of assessment in classroom teaching and learning. It provides understanding of different types of tests, measurement, evaluation, and assessment along with their application in classroom pedagogy. The construction of specification grid with the application of knowledge of taxonomy help students and prospective teachers maintain essential requirements of test. Similarly, the course intends to develop, validate, and use different types of tests useful for learning improvement and upgrading the level. At the end unit of this course, it aims to provide the knowledge and skill of identifying and solving the various psychological factors impeding students learning.

2. General Objectives

The general objectives of this course are:

- To provide the students the knowledge and skill of developing different techniques of test, assessment, and evaluation.
- To develop the skill of constructing and using specification grid with the application of taxonomy of educational objectives.
- To develop and validate the test useful to improve classroom improvement.
- To identify and solve the students' hindering aspects for learning associated with the psychological as well as social factors.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

3. Specific Objectives and Contents

Unit 1: Assessment and Evaluation	**(12 Hours)**
Specific Objectives	**Contents**
• Differentiate the concept of assessment and evaluation • Construct test, checklist, and observation form • Develop student portfolio • Prepare report analyzing the assessment practice in Nepali school.	1.1 Concept of test, measurement, assessment and evaluation 1.2 Types of assessment (Pre-assessment, alternative, authentic, summative, formative, high-stakes, portfolio, performance, diagnostic, ipsative) 1.3 Construction of assessment devices (tests, check list, observation form) 1.4 Development and use of portfolio 1.5 Norm referenced and criterion reference measurement 1.6 Analysis of assessment practice in Nepal (Practice, issues, ways out)
Learning Engagement	
Role of Facilitator	**Role of Students**
• Provides learning resources • Deliver the content related to the unit • Encourage students for interactive learning providing timely feedback on the discussion • Provide title for the project work, facilitate the student work and provide feedback	• Access the learning resources • Study the learning materials critically to attain theoretical knowledge before its application in the classroom. • Engage in doing project work as per the instruction of tutor. • Develop assessment tools for the classroom learning improvement.
Unit 2: Test Development	**(12 Hours)**
Specific Objectives	**Contents**
	2.1 Types of test

• Explain the concept of teacher made and standardize test. • Construct specification grid for test development (Using new taxonomy) • Prepare answer key for objective and subjective test.	2.1.1 Teacher made test (objective, subjective, interpretative) 2.1.2 Standardized test (Concept and process) 2.2 New taxonomy of educational objectives 2.3 Specification grid and item writing 2.4 Developing teacher made test 2.5 Preparing answer key for objective test 2.6 Preparing rubrics for subjective test
Learning Engagement	
Role of Facilitator	**Role of Students**
• Provides learning resources to the students such as research papers, articles, and books. • Deliver the class on different tests, taxonomy of educational objectives, specification grid and various types of tests • Facilitate class work and project work. • Develop and use quiz and other tests. • Provide feedback to the work of students and supervise whether they addressed or not.	• Access the learning resources online and offline • Engage in collaborative learning to acquire the theoretical knowledge of different tests, taxonomy of educational objectives, and specification grid. • Use standardization process to develop test in your specialization area. • Develop educational objectives and tests using taxonomy of educational objectives. • Improve your project work addressing the comments and feedback provided by your tutor.
Unit 3: Test Validation	**(12 Hours)**
Specific Objectives	**Contents**
• Clarify the concept of reliability and validity of the test.	3.1 Reliability of Test 3.1.1 Concept and uses

• Develop test items, use the test and compute reliability coefficient of test score. • Calculate standard error of measurement. • Determine content validity of test items. • Perform item analysis of developed test items.	3.1.2 Methods of estimating reliability coefficient (with computation) 3.2 Standard errors of measurement (*SEm*) 3.3 Validity Consideration 3.3.1 Types and use of validity considerations 3.3.2 Test validation process 3.4 Item Analysis 3.4.1 Difficulty level 3.4.2 Discrimination index 3.4.3 Distractor analysis
Learning Engagement	
Role of Facilitator	**Role of Students**
• Provides learning resources supportive to clarify the theoretical concept of given content. • Facilitate the class to achieve learning objectives. • Prepare models of item analysis and test validation. • Help compute standard error of measurement of test score. • Facilitate students' work and provide feedback for improvement.	• Access the learning resources from different sources. • Engage in deep learning to acquire the theoretical concept of reliability, validity, standard error of measurement, and item analysis process. • Improve your work addressing comments and feedback provided by your tutor.
Unit 4: Enhancing Assessment Practices in Classroom	**(12 Hours)**
Specific Objectives	**Contents**
• Discuss the concept of depression, anxiety, interest, attitudes,	4.1 Assessment of students with depression and anxiety 4.2 Providing support against anxiety

personality, and their impact in learning. • Use different techniques to test personality of an individual • Explain the ways of making classroom inclusive.	4.3 Assessment of interest, and attitudes 4.4 Concept and types of personality 4.5 Assessment of personality 4.6 Use of different test techniques 4.6.1 Projective techniques 4.6.2 Rorschach test 4.6.3 Verbal techniques 4.6.4 Expressive techniques 4.7 Making classroom assessment inclusive 4.8 Enhancing creativity using multiple intelligence
Learning Engagement	
Role of Facilitator	**Role of Students**
• Provides learning resources on depression, anxiety, interest, attitudes, personality, and inclusion. • Deliver the class on the above theme and concept • Provide comments and feedback to the students' efforts.	• Access the learning resources provided by your tutor. • Participate actively in individual and group work. • Prepare project work and report in the given contents by your tutor. • Finalize your work addressing the feedback of your tutor.

4. Evaluation Criteria

Nature of Course	Internal Assessment	Semester Examination	Total Marks
Theory	40 Marks	60 Marks	100 Marks

***Note**: Students must pass separately in internal assessment and semester examination.*

4.1. Internal Evaluation (40 Marks)

Internal evaluation will be conducted by course teacher based on following activities:

1.	Attendance (Including contact session and discussion forums)	5 Marks
2.	Students Learning Engagement	5 Marks
3.	Assignment I (Individual Project Work)	10 Marks
4.	Assignment II (Group Project Work)	10 Marks
5.	Assignment III (Internal Written Test)	10 Marks
	Total	**40 Marks**

Note. The attendance score will be provided as per the following criteria: Point 5≥90, 90>4.5≥85, 85>4≥80, 80>3.5≥75. The student must attend 80% or more class. Only in serious case with justifiable evidence will be considered up to 70%.

4.2. External Evaluation (Final Examination) (60 Marks)

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester. The marks distribution will be as follows

1.	Objective Type Question (Multiple Choice Question)	10× 1 =10 Marks
2.	Short Answer Questions (6 Questions with 2 or Questions)	6× 5 = 30 Marks
3.	Long Answer Questions (2 questions with 1 or Question)	2× 10 = 20 Marks
	Total	**60 Marks**

Project Works

Develop the report of project work under the supervision of your facilitators.

1. Construction of specification grid
2. Item analysis and finalization of test items
3. Test standardization process
4. Test Construction and Validation
5. Development of inventories
6. School report regarding the use of portfolio and assessment system
7. Prepare collect tests to measure anxiety, interest, attitudes, personality

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

5. Reference Books and Reading Materials

Aggarwal, J.C. (1997). *Essential of examination system: evaluation, Tests and Measurement.* Vikas Publishing House Pvt. Ltd.

Allport, G.W. (1961). *Pattern and growth in personality*. Holt, Rinehart & Winston, New York.

Antonak, R. F. & Livneh, H. (1995). Direct and indirect methods to measure attitudes toward persons with disabilities, with an exegesis of the error-choice Test Method. *Rehabilitation Psychology* 40 (1), 1-24.

Barrett. J. (2009). Aptitude, personality and motivation test. (3rd ed.). Kogan Page, London and Philadelphia.

Ebel, R.L. & Frisbie, D.A. (1991). *Essential of educational measurement* (5th ed.). Prentice-Hall of India Pvt. Ltd.

Freeman, F.S. (1965). *Psychological testing* (3rd ed.). New Delhi: Oxford & IBH Publishing Co. Ltd.

Garrett, Henry E. (2008). *Statistics in psychology and education*. Surjeet Publications.

Gronlund, E. (1995). *How to write and use instructional objectives* (5th ed.). Prentice Hall.

Grounlnd, N.E. & Linn, R.L. (1990). *Measurement and evaluation in teaching* (6th ed.), New York: McMillan Publishing Company.

Hopkins, K.D. & Stanly, J.C. (1978). *Educational and psychological measurement and evaluation.* New Delhi: Prentice Hall of India.

Kaplan, R.M. & Saccuzzo, D.P. (2005). *Psychological testing* (6th ed.). Delhi: Language Learning India Pvt. Ltd.

Kelleman, H. & Burry, A. (2007). *Handbook of psycho-diagnostic testing: analysis of personality in the psychological report.* Springer.

Kline, J.B.T. (2005). *Psychological testing: A practical approach to designed evaluation*. Vistaar Publications, India.

Kubiszyn, T., & Borich, G. (2003). *Educational testing and measurement* (7th ed.). John Wiley & Sons, Inc

Linn, R.L., & Miller, M.D. (2008). *Measurement and assessment in teaching* (9th ed.). Dorling Kindersley.

Morgan, H. (2021). Howard Gardner's Multiple Intelligences Theory and his Ideas on Promoting Creativity. In F. Reisman (Ed.), *Celebrating Giants and Trailblazers: A-Z of who's who in Creativity Research and Related fields.* 124-141. KIE Publications.

Sidhu, K.S. (2009). *New approaches to measurement and evaluation*. New Delhi: Sterling Publishing Pvt. Ltd.

Singh, A.K. (2008). *Tests, measurement, and research methods in behavioural sciences*. Bharati Bhawan.

Course Title: Application of Information and Communication Technology (ICT)

Course Code: Ed. 482 | **Nature of Course**: Theory + Practical

Level: PGDE | **Credit Hours**: 3 (2 Th + 1 Pr)

Semester: Second | **Teaching Hours**: 64 (32 Th + 32 Pr)

---

1. Course Description

This course is to impart knowledge and skills to effectively integrate information and communication technology (ICT) into their teaching and learning practices. The course emphasizes practical applications and hands-on experience with essential ICT tools such as word processors, spreadsheets, presentations, the internet, email, social media, and multimedia integration. It also addresses system security and safety measures, ensuring educators are prepared to protect their digital assets and students' online well-being.

2. General Objectives

The general objectives of the course are as follows:

- To enhance digital literacy by equipping teachers with the necessary skills to effectively utilize ICT tools and integrate into teaching learning practices.
- To promote the use of email, internet, and social media platforms for communication and collaborative learning among students and teachers.
- To empower teachers to create and utilize multimedia and digital resources to enhance the learning experience, making education more engaging and accessible.
- To create awareness the ability to analyze and apply cybersecurity practices to ensure the safety of digital environments for both teachers and students.

3. Specific Objectives and Contents

Objectives	Contents
• Identify and list key ICT elements. • Explain the significance of emerging ICT tools and practices • Learn how to use ICT in the classroom	**Unit 1: Introduction to ICT (6 Hours)** 1.1 Concept of ICT and its components 1.2 Emerging ICT Tools and Practices in Education 1.3 ICT in Education and Practices

• Explore different mobile applications for teachers to teaching learning	1.4 Challenges on implement of ICT in education 1.5 Educational Mobile Application for Teachers
• Identify the different application packages • Demonstrate word processing skills, including creating and editing complex documents, using consistent formatting styles, and developing collaborative skills like tracking changes and sharing with peers. • Demonstrate to create and format spreadsheets, manipulate data, apply basic formulas and functions, and interpret data through visualization techniques, creating meaningful charts and graphs. • Create engaging presentations using slide transitions and animations, and practice presentation techniques to enhance classroom learning experiences.	**Unit 2: Computer Applications and Office Packages (18 Hours = 6 Th + 12 Pr)** 2.1 Introduction to Office Packages: An Overview of Office Packages (Microsoft Office, Google Office Workspace, LibreOffice), Installation and Setup or Subscription process. 2.2 Word Processor: create and edit documents, formatting documents, use styles, headers and footers, set page numbers, create section breaks, collaborating with documents (track changes, leave comments and share). 2.3 Spreadsheet: create and format spreadsheets, entering and editing data, basic Formulas and functions, data visualization (charts and graphs). 2.4 Presentation Design: creating a presentation, slide transitions and animations, presentation techniques in classroom.
• Explain effectively communicate and exchange information in an academic setting by applying the fundamental concepts of the Internet and email. • Demonstrate email communication techniques and etiquette to improve professional correspondence. • Describe use secure web browsing practices, and safeguard their personal information from unauthorized access.	**Unit 3: Internet, Email and Social Media (6 Hours = 3 Th + 3 Pr)** 3.1 Concept of Internet and Email 3.2 Email Communication techniques 3.3 Safe web browsing practices 3.4 Concept of social media and educational Practices 3.5 Teacher Student Collaboration through social media such as Facebook, Google Drive 3.6 Virtual teaching learning environment (Google Class or MS Teams)

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

• Demonstrate social media platforms for educational support, discussions, and collaboration and collective project work with teachers and peers. • Demonstrate virtual teaching and learning environments like Google Classroom and MS Teams, demonstrating proficiency in assignment management, discussion participation, and course material access.	
• Explain the basics of AI and how machines learn from data. • Identify tools that translate languages and understand their use. • Describe AI tools that create new content and recognize their potential. • Recognize AI tools that help in research and summarize their benefits. • Explain how AI improves school management and enhances learning.	**Unit 4: Artificial Intelligence Tools for Teachers (10 Hours = 4 Th + 6 Pr)** 4.1 Concept of AI and Machine learning 4.2 Language translation AI tools 4.3 Generative AI tools 4.4 Academic Research AI Tools 4.5 AI Based School Management Tools
• Explain the key components and design principles of multimedia. • Work on creating, modifying, and publishing images, audio and video, and utilizing them effectively as educational resources to support and enhance learning. • Explore AI-based tools to generate self-generated learning resources, evaluating their effectiveness in educational practices • Apply searching techniques for open and free online libraries and utilize MOOCs for continuous learning.	**Unit 5: Multimedia and Online Learning Resources (12 Hours = 5 Th + 7 Pr)** 5.1 Concept of Multimedia 5.2 Create, modify and publish images as learning resources 5.3 Create, edit and publish audio and video as learning resources 5.4 AI based self-generated learning resources and practices. 5.5 Searching methods of open and free online library 5.6 Concept of MOOC course and learning practices

• Define cybercrime, information security in protecting against unauthorized access. • list and describe various types of cyber threats and attacks • Explain methods of securing computing systems like firewalls, antivirus software, and intrusion detection systems • Define principles of data protection and the role of encryption in safeguarding sensitive information from unauthorized access and breaches.	**Unit 6: Cyber Security (12 Hours = 8 Th + 4 Pr)** 6.1 Concept of Cybercrime and information security 6.2 Types of cyber threats and attacks 6.3 Techniques for securing computing systems 6.4 Concept of Data Protection and Encryption 6.5 Information Security software like antivirus 6.6 Cyber law in Nepal and Practices

Part II Practical (32 Hours)

Units	Topics	Practical Works
2	Computer Applications and Office Packages (6 Th + 12 Pr)	• Create a report document on given by instructor including sections on how to track changes, leave comments, and share documents with peers. • Draft a report on a chosen topic with proper document structuring using section breaks. Demonstrate the use of different styles for headings and subheadings, and include a table of contents that updates automatically. • Create a teacher expense tracker spreadsheet. Use formulas to calculate total expenses, average spending, and predict savings. Introduce functions like SUM and AVERAGE, and format the spreadsheet for clarity. • Develop a sales report on spreadsheet for a "ABC" company with visualization charts and graphs to visualize trends and comparisons. • Create an engaging classroom presentation on "XYZ topics" utilizing slide transitions, animations and questioning techniques.

3	Internet, Email and Social Media (3Th + 3Pr)	• Perform the safe browsing activities in groups and explore unsafe practices. • Create collaborative project work via Google Drive for Teacher-Student Collaboration. • Use Google Classroom or MS Teams to simulate a virtual learning environment
4	Artificial Intelligence Tools for Teachers (4 Th + 6 Pr)	**Practical Task**: • Use AI based language translator tools such as google translator or lens and your learning materials convert into different languages. • Create different cognitive level questions using proper prompt in AI Generative tools such as Copilot, Gemini etc. • Use different research AI tools such as elicit, scispace etc, and summarized articles. • Explore and demonstrate biometric attendance system, CCTV tools for education class management purpose
4	Multimedia and Online Learning Resources (5 Th + 7 Pr)	**Practical Task**: • Create an educational poster (given topics) using image editing software (online or offline). • Create a short documentary video on a subject relevant to the course and edit using mobile apps. • Use an AI tool to generate a set of customized quiz questions based on the current lesson. • Develop an interactive learning module using a combination of text, images, audio and quizzes.
5	Cyber Security (8T+ 4P)	• Install a free antivirus software on a computer system and scan your system. • Configure a computer system to adhere to security best practices including setting up strong user authentication, enabling a firewall, installing security updates. Document each step with screenshots and explanations of the choices made.

4. Instructional Techniques

The instructional techniques for this course are divided into two groups. First group consists of generalinstructional techniques applicable to most of the units. The second group consists of specific instructional techniques applicable to specific units.

General Techniques

Providing the reading materials to the students to familiarize the units.

Lecture, question-answer, discussion, brainstorming, practical, and buzz session.

Specific Instructional Techniques

Units	Activity and Instructional Techniques	Teaching Hours (64)
2	Lecture, Group Work, Presentation	9
3	Practical, Project Work, Lecture	18
4	Project Work and Presentation, Discussion	16
5	Lecture, Group Work, Presentation	10
6	Review/Report Writing, Project Work, Lecture	11
	Total	

5. Evaluation Criteria

Nature ofcourse	Internal Assessment	External Practical Exam/ Viva	Semester Examination	Total Marks
Theory + Practical	**40**	**20**	**40**	**100**

Note students must pass separately in internal assessment, external practical exam/viva and semester examination.

Evaluation for Part I (Theory)

Internal Evaluation

Internal evaluation will be conducted by the course teacher based on the following activities:

Attendance	5 Marks
Participation in Learning Activities	5 Marks
First Assessment (Written Assignment)	10 Marks
Second Assessment (Term Examination)	10 Marks
Third Assessment (Internal Practical Exam/Case Study)	10 Marks
Total	40 Marks

External Evaluation (Final Examination)

Examination Division, office of the Dean, Faculty of Education will conduct finalexamination at the end of semester.

Objective Type Question (Multiple Choice Questions)	10 × 1= 10 Marks
Short answer questions (6 questions with 2 Or Questions)	6 × 5 =30 Marks
Total	40 Marks

Evaluation for Part II (Practical)

Records of Practical Activities	5
Records of Reports of Book Review and Sample Curriculum Development	5
Records of Unit Plans and Lesson Plan	5
Laboratory Work Exam/Case Study	5
iii) VIVA	5
Total	40

6. Recommended Books and Reading Materials

Sinha, P. K., & Sinha, P. (2021). Computer Fundamentals: Concepts, Systems & Applications, 8th Edition (8th Edition). BPB Publications.

Alexis Leon & Mathews Leon (2009). Fundamentals of information technology, 2/e. New Delhi.Vikas Publishing House

Bowen, J. A., & Watson, C. E. (2024). *Teaching with AI: A practical guide to a new era of human learning*. Johns Hopkins University Press.

Khan, S. (2024). *Brave new words: How AI will revolutionize education (and why that's a good thing)*. Viking.

Cox, J., Lambert, J., & Frye, C. (2011). Microsoft Office Professional 2010 step by step. Redmond, Wash: Microsoft.

Melton, B. (Ed.). (2013). *Microsoft Office Professional 2013*. Sebastopol, Calif: O'Reilly Media.

Melton, Beth, Dodge, Mark. (2013). Microsoft Office Home and Student 2013 Step By Step. India: PHI

Patrice-Anne Rutledge. (2014), Office 2013 All-In-One Absolute Beginner's Guide ISBN:9789332539372 , Pearson India

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Elective Courses

El. Ed. 493 Guidance and Counseling

El. Ed. 494 Inclusive Education and Classroom Management

El. Ed. 494 Application of Arts in Education

Cou rse Title: Guidance and Counseling

Course Code: El. Ed. 493

Nature of Course: Theory

Level: PGDE

Credit Hours: 3

Semester: Second

Teaching Hours: 48

---

1. Course Description

This course has been designed to provide students with a foundational knowledge of guidance and counseling concepts and their applications in an educational setting. The course introduces the concept, scope, and theories that govern the process of guidance and counseling, enabling students to identify the areas of guidance and counseling at the school level. The course provides a basic understanding of school guidance and counseling techniques to address the educational, personal, and social problems of students that may arise in the classroom. The course helps students comprehend the roles of various members of a guidance and counseling system to cope with their future educational and social challenges. The knowledge and skills gained from this course will equip students to explore their talents and potential to live an individually satisfying and socially effective life in the upcoming society.

2. General Objectives

The course aims to embrace the following general objectives as expected learning outcomes after completion of this course.

- To apply the principles and functions of guidance and counselling to ensure a safe learning environment in school;
- To demonstrate the appropriate role and implications of guidance services and programs in an educational setting;
- To develop effective guidance and advisory skills for teachers and parents to support student development;
- To apraise essential counselling skills and techniques for teachers and parents;
- To explore various types of counselling and the steps involved in counseling process;
- To assess the principles and competencies required for multicultural counseling in the school setting.

3. Specific Objectives and Contents

Unit 1: Understanding Guidance and Counseling (12 Hours)	
Objectives	**Specific Contents**
• Conceptualize guidance and counseling; • Get acquainted with the aims and goals of educational guidance and counseling;	1.1. Guidance 1.1.1. Nature and concept of educational guidance 1.1.2. Types of guidance 1.1.3. Aims and objectives

• Enble to enlist the types of guidance; • Assess the needs, importance and function of educational guidance; and counseling; and • Compare and contrast between guidance and counseling.	1.1.4. Need and importance 1.1.5. The function of guidance in education 1.2. Counseling 1.2.1. Nature and concept 1.2.2. Aims and objectives 1.2.3. Needs of counseling 1.3.Differences between guidance and counseling
Teacher's Input (12 Hours)	**Student's Input (24 Hours)**
The teacher distributes the learning materials one week before the first-class meeting. The materials may include PDFs, Word documents, and URL links. The teacher asks students to read the material and come prepared with questions for discussion.	The students read the materials provided, and prepare to work on the questions to be discussed in the classroom. In the classroom, they all present their questions on guidance and counseling, and will participate in discussion.
Unit 2: School Guidance Program (12 Hours)	
Objectives	**Specific Contents**
• Get acqainted the meaning and concept of a school guidance program; • Acknowledge with the guidance services and apply them in the educational setting; • Implement the role of teachers as guidance workers; and • Assess the guidance skills required for teachers and parents.	2.1. Meaning and concept of school guidance program 2.2. Guidance services 2.3. Implication of guidance program 2.4. Guidance skills for teachers and parents 2.4.1. The role of the teacher in guidance 2.4.2. Role of teacher as student adviser
Teacher's Input (12 Hours)	**Student's Input (24 Hours)**
The teacher provides materials, either in hardcopy or softcopy, to the students. The teacher briefly explains the school guidance services and program, illustrating their importance. Students are then divided into	Here's the revised version: The students read the materials and develop their own ideas on the school guidance program. They participate and interact in the classroom, sharing their ideas and refining them after the teacher's clarification. To conduct a mock guidance session,

small groups and assigned specific tasks to prepare for conducting a mock guidance session in the classroom.	they work in their assigned groups on the designated guidance program.
Unit 3: School Counseling Program (12 Hours)	
Objectives	**Specific Contents**
• Conceptualize the school counseling progam; • Assess the school counseling services and apply them in the educational setting; • Appraise the role of a couselor in schools; • Analyze the counseling skills for teachers and parents; • Get acquaint with indiviual and group conseling process in schools; • Implement the couneseling process in schools; and • Become familiar with directive and non-directive counseling methods.	3.1. Meaning and concept of school counseling program 3.2. Types of counseling 3.3. school counseling services 3.3.1. Building a school environment 3.3.2. The role of the counselor 3.3.3. Counseling skills for teachers and parents 3.4. Technique of counseling 3.5. The counseling processes
Teacher's Input (12 Hours)	**Student's Input (24 Hours)**
The teacher provides learning materials at least a week in advance to familiarize students with the concepts, services, processes, techniques, and types of counseling, as well as its implementation in school programs. The main focus will be on procedures that can simplify the counseling program to effectively address any school-related issues students may face. Similar to the guidance program, the teacher assigns tasks to students to perform the role of a counselor.	The students read the materials and develop their own ideas on the school counseling program. As a group, they present their understanding of the school counseling program. The teacher assists and inspires them to identify the basic skills needed to be a counselor. Each group presents their work on counseling skills and performs a mock counseling practice. They focus on the type of counseling they are performing—directive or non-directive—and the techniques they are using, whether individual or group.

Unit 4: Multicultural Counseling (12 Hours)	
Objectives	**Specific Contents**
• Concetpualize the meaning of multicultural eduation; • Analyze the need for multicultural education in schools; • Become familiar with the concept of ethnic groups and multicultural counseling; • Assess the characteristics of a culturally skilled counselor; • Identify the competencies required in multicultural counseling; and • Appraise the practical guidelines in addressing diversities.	4.1. Concept and meaning of multicultural counseling 4.2. Ethnic groups and multicultural counseling 4.3. The culturally skilled counselor 4.4. Multicultural competency in counselor
Teacher's Input (12 Hours)	**Student's Input (24 Hours)**
The teacher provides learning materials to the students to help them develop an understanding of multicultural education. By reading these materials, students explore the basic ideas of counseling based on previous chapters of their study in conjunction with the new materials provided. The teacher then offers a synopsis of multicultural counseling, emphasizing its needs, significance, and implementation.	The students read the materials and generate ideas for classroom discussion. They reflect on what they previously learned and how it connects to counseling within a multicultural context. Through discussions with the teacher, they identify the competencies required for a counselor and the skills needed to implement them.

4. Evaluation Criteria

Criteria	Marks	Remarks
Internal Criteria (40%)		
Attendance (70% compulsory)	5	70-80=3, 81-90=4, 91-100=5
Class Presentation	5	Each student will take part in deliver content in their own classroom

Review Work	10	Each student will review a book/book chapter/ article and prepare review report in about words.
Paper Writing	10	Each student will write a paper based on the field data.
End Semester Internal Exam	20	Objective items 10 (weightage of each item will 0.5marks), subjective (creative type) items 5 (3 marks of each item).
Total Internal Assessment	40	
External Criteria External Examination	60	Group A: Objective Items MCQ (10× 1) = 10 Group B: Short Answer Type Items with 2 Or Questions (6× 5) = 30 Group C: Essay Type Items with 1 Or Question (10× 2) = 20

5. Recommended Books and Reading Materials

Banks, J. A., Cherry A., & Banks, M. (2016). *Multicultural education: Issues and Perspectives (9th Ed.).* Willey.

Bernard, H.W & Fullmer, D. W. (1972). *Principles of guidance: A basic text.* Allied Publishers Pvt.

Chauhan, S. S. (2001). *Principles and techniques of guidance.* Vikas Publishing House Pvt Ltd.

Gibson, R. L., & Mitchell, M. H. (2005). *Introduction to counseling and guidance.* Prentice Hall.

Gysers, N. C., & Henderson, P. (2012). *Developing and managing your school guidance and counseling program.* Willey.

Hughes, P. M. (1971). *Guidance and counseling in schools.* Pergamon Press.

Jones, A. J. (1970). *Principles of guidance.* Tata McGraw-Hill Publishing

Kochhar, S. K. (2001). *Guidance and counseling in colleges and universities.* Sterling Publishers Pvt.

McLaughlin, C., Clark, P., & Chisholm, M. (2012). *Counseling and guidance in schools: Developing policy and practice.* Routledge.

Myrick, R. D. (2011). *Developmental guidance and counseling: A practical approach* (5th ed). Minneapolis, MN: Educational Media Corporation (pp. 1-22).

Noperlis, A. D., Mohd, M., Bin, S., & Sidik, M. (2024). Implementation of multicultural education through guidance and counseling services in forming student character. *Educational Guidance and Counseling Development Journal, 7* (1), pp. 1-15.

Ranganathan, N., & Wadhwa, T. (2024). *Guidance and counseling in schools: Theory and practice.* Routledge.

Sharma, R. (2002). *Guidance and counseling.* Surjeet Publications.

Shrivastava, k. K. (2003). Priniciples of guidance and counseling. Kanishka Publishers, Distributors.

Course Title: Inclusive Education and Classroom Management

Course Code: El. Ed. 494 | **Nature of Course**: Theory

Level: PGDE | **Credit Hours**: 3

Semester: Second | **Teaching Hours**: 48

1.Course Description

This course is prescribed as a core course for the students of postgraduate diploma in education. It is designed to provide students with general understanding of inclusive education and classroom management. The course provides the knowledge about inclusive education and different perspectives on children with disability in Nepal. The course deals about the deeper understanding on evolution of culture of inclusion and wider knowledge of universal design for learning as well as issues and challenges of inclusive education in Nepal. Furthermore, the course provides students to have familiar with inclusive education policies and programs in Nepal. Finally, the course enables the student in drawing upon concept on classroom management and provides skills of management to make inclusive classroom.

2. General Objectives

The general objectives of this course are as follows:

1. To make students more knowledgeable about the basic concepts of inclusive education from different perspectives on children with disability in Nepal.
2. To provide students to have deeper understanding on evolution of culture of inclusion in the field of education.
3. To identify students to have comprehensive knowledge of universal design for learning, issues and challenges of inclusive education in Nepal.
4. To make students familiar with inclusive education policies and programs in Nepal.
5. To familiarize students to have knowledge of diversity management for inclusive classroom

3. Specific Objectives and Contents

Specific Objectives	Contents
• Clarify the concept, need and importance of inclusive education. • Inculcate evolution of inclusive education • Conceptualize disability and classify disability in Nepalese context	**Unit 1: Understanding Inclusive Education (12 Hours)** 1.1 Concept of Inclusive Education 1.2 Need and Importance of Inclusive Education 1.3 Evolution of Inclusive Education 1.3.1 Rejection 1.3.2 Segregation

• Prepare report on different types and nature of disabilities in nearby society • Explain prevalence and criteria for eligibility of disability • List positive and negative aspects of disability labeling	1.3.3 Integration 1.3.4 Inclusion 1.4. Children with Disabilities in Nepal 1.4.1. Definition, classification, prevalence, and criteria for eligibility 1.4.2. Consequences of Disability Labeling 1.5. Target Group of Inclusive Education
• Explain prominent disability rights movement in brief • State the major public policy for integrating to all children including the children with disabilities • Clarify cultural effects on disability • Explore the issues and challenges of inclusive education in Nepal • Illustrate universal design for learning to promote inclusive education	**Unit 2: Evolution of Culture of Inclusion (10 Hours)** 2.1.The Disability Rights Movement 2.1.1. Independent Living 2.1.2. Organizing for Action 2.2.Public Policy for Integration 2.2.1. The Education for All Handicapped Children Act 2.2.2. The Americans with Disabilities Act (ADA) 2.2.3. Disability Rights and Education 2.3. Disability and Popular Culture 2.4. Issues and Challenges of Inclusive Education in Nepal 2.5.Universal Design for Learning
• List out the special, special needs education, inclusive education provision in different documents • Discuss the provisions of special education in NESP • Analyze prominent special needs and inclusive education policy provision in Nepal • Prepare evaluation report on special needs education and inclusive education in relation to National Education Commission and Higher-Level National Education Commission • Identify the implication of different education plan on the development of the special need education/ inclusive education	**Unit 3: Inclusive Education Policies and Programmes in Nepal (14 Hours)** 3.1.Special Needs Education/Inclusive Education Plan Period 3.1.1. National Education System Plan (NESP) 1971-76 3.1.2. The BPEP Program (1992-2004) 3.1.3. The EFA (2004-2009) 3.1.4. SSRP (2009-2015), SSDP (2016-2023), and SESP (2023-2030) 3.2.Policy Provisions in Nepal 3.2.1. Special Education Policy-1996 3.2.2. National Policy and Plan of Action on Disability-2006 3.2.3. Inclusive Education Policy for the Persons with Disability- 2017 3.3. National Education Commission, 1992 3.4. Higher Level National Education Commission, 1998 3.5. National Education Policy, 2019

	3.6. Different Developmental Plans (7th Plan onwards) 3.7. National Policy and Plan of Action on Disability, 2006
• Explain the concept of classroom management and evaluate the classroom management at nearby school • Describe student's management in terms of participation, maintain discipline, and team work • Identify diversity in the classroom and its effective management for quality education • Analyze strategies for effective classroom management • Explore conflicts in a classroom setting and suggest the ways for managing them • Observe at least three classroom and prepare a report on the use of effective classroom management strategies	**Unit 4: Classroom Management (12 Hours)** 4.1. Classroom Management 4.1.1. Concept and need of classroom management 4.1.2. Aims and objective of Classroom management 4.1.3. Strategies for Effective Classroom Management 4.2. Students Management 4.1.4. Student Management for Team Work 4.1.5. Students' Participation in Extracurricular Activities 4.2. Diversity in the Classroom and its Management 4.2.1. Gifted and Talented Students 4.2.2. Creative, Culturally and Linguistically Diverse Learners, 4.2.3. Children at Risk. 4.3. Managing Conflict in a Classroom Setting

Note: *The figures in the parenthesis indicate the approximate teaching hours for the respective units.*

4. Modes of Instruction

Two types of instructional delivery modes are suggested: general and specific to deliver the contents in the classroom. A brief account of these techniques are as follows:

4.1 General Instructional Strategies

- Participatory Lecture with Discussion
- Demonstration
- Home Assignment and Self Study
- Question Answer
- Guest Lecture

4.2 Specific Instructional Strategies

Specific instructional techniques such as participatory lecture method, classroom presentation by the groups of students or individual, self-study, tutorial support based on the nature of contents, and home assignment or project works are suggested. In this course, to ensure the students' active participation in teaching learning process the following specific instructional techniques are suggested.

Units	Activities/ Instructional Strategies
1	**Lecturer and Discussion** ▪ Paper will be presented in the classroom for making concept clear and discussion. ▪ Individual or group of students will be assigned for discussion on various aspects of assessment and its process. ▪ Group of students will prepare the report based on the discussion and present it in the classroom. ▪ Students will ask the different questions related to subject matter and teacher will responds each query respectively.
2	**Presentation and Group Discussion** ▪ Students will divide into a groups and division the content for each group. ▪ All the students are requested to prepare their presentation on given topic and present it in the classroom. ▪ All the group members should have listened carefully and ask some questions after finishing the presentation. ▪ The teacher will guide and clear the confusion portion on their presentations. ▪ After finishing the presentation teacher and students will sit together and discuss about their presentation and make a conclusion. Furthermore, all the group members should have submitted their presentation materials to their subject teacher.
3	**Home Assignment and Presentation** ▪ Techer will provide reading materials related to given content. ▪ Techer will give assignment to students on the topic of developmental assessment process and its principle. ▪ Students will make a paper on given content and present in the classroom respectively. ▪ Finally, teacher will guide and conclude the all assigned contents.
4	**Library study** ▪ Divide the students into 4 groups ▪ Let the groups of students study the classroom management and diversity in classroom, strategies for effective classroom management, and managing conflict in a classroom in the context of Nepal from available reading materials. ▪ Let the groups of students prepare the report and presentation in the classroom followed by discussion
1 & 2	**School Visit** ▪ Divide the students into 5 groups ▪ Let the groups of students visit residential (special or integrated) schools for observing the students with disabilities ▪ Let the groups of students prepare report and present in the classroom followed by discussion and feedback.

5. Evaluation Criteria

Evaluation Scheme: Students will be evaluated in two phases i) internal evaluation and ii) external evaluation in all subjects. The weightage given to internal evaluation is 40 percent and final evaluation is 60 percent to the course.

5.1 Internal Evaluation 40%

Internal evaluation will be done by the concerned teacher through mid-term class test, preparation of term paper, paper presentation, project work, workshop, assignment. One paper presentation in the class is mandatory in all subjects. The student who is not appeared in internal evaluation cannot attend final examinations. The grades awarded to a student in a course are based on performance in both internal and external evaluation. Practical aspect of any course is based on internal or external or both according to the nature of the course. The concerned teacher will carry out the internal assessment of the students based on the distribution of points as stated below: Format for internal evaluation of the course is as follows:

Name of College..... Address.....
Course Code..... Course Title.....
Course: Professional Core/Specialization .....
Level/year: 3 Semester B. Ed

Name	Class Test	Assignment, Project work, workshop	Term Paper presentation and viva	Attendance and Participation	Total	Remarks
	FM=10	FM=10	FM=8+4	(FM=4+4)	40	
Attendance	-	-	-	4	4	
Participation	-	-	-	4	4	
First Assignment (Book Review, Project Work)	-	10	-	-	10	
Second Assignment (Term paper writing and Presentation in the classroom)	-	-	12	-	12	

Third assignment (written test)	10	-	-	-	10	
Total	10	10	12	8	40	

Note: FM represents Full Marks. If there is more than 20 percent gap between internal and external marks, the marks of the external evaluation will be reduced to make equal to 2o percent. The documents of the internal marks should be submitted to the university if so claimed.

5.2 External Evaluation (Final Examination) 60%

Office of the Controller of Examination will conduct final examination at the end of each year. The distribution of points for the types of questions to be asked in final examination is as follows: The types and the number of the questions for any paper in the final annual examination should be as follows (for a paper of 100 marks):

Types of questions	Total questions to be asked	Number of questions to be answered and number allotted	Total Marks
Group A: Multiple Choice Questions	10	10 ×1 Marks	10
Group B: Short Answer Questions	6 (with 2 Or Questions)	6 × 5 Marks	30
Group C; Long Answer Questions	2 (with 1 Or Question)	2 × 10 Marks	20
Total			60

Note: There will be 6 short answer questions (1to 6) and question no 2 and 5 contains one/one alternative questions. There will be 2 long answer questions (7 and 8) and question no 8 contains one alternative question.

6. Recommended Books and Reading Materials

Baglieri, S., & Shapiro, A. (2017). *Disability studies and the inclusive classroom: Critical practices for embracing diversity in education* (2nd edition). New York: Routledge Tyler and Francis Group. (Unit 1 & 2)

Causton, J., & Tracy-Bronson, C. (2015). *The educator's handbook for inclusive school practices.* London: Paul H. Brookers Publishing Co. Inc.

CERID (2004). *Situation analysis of special needs education for the expansion of inclusive education.* Kathmandu: TU, Retrived from http://www.cerid.org/formative/files/114838022-incl_edu.pdf

CERID (2006). *Situation of inclusive education in Nepal.* Kathmandu: Tibhuvan University.

Department of Education (2014). *Educational Information (Nepali Version).* Ministry of Education and Culture: Author.

Department of Education (2015). *Inclusive education in Nepal.* Sanothimi: Inclusive Education Division.

Farrell, M. (2012). *New perspective in special education: Contemporary philosophical debates.* New York: Routledge, Taylor and Francis Group. (Unit 1 & 2)

Friend, M. (2011). *Special Education: Contemporary Perspectives for School Professionals.* (3rd edition). USA: Pearson Education Inc.

Hallahan, D. P., Kauffman, J. M. & Pullen, P. C. (2014). *Exceptional learners: An introduction to special education* (12th ed.). USA: Pearson Education, Inc.

Hallahan, D.P. Kauffman, J.M., & Pullen, P.C. (2012). *Exceptional Learners: An Introduction to Special Education.* (12th edition). USA: Pearson Education Inc.

Heward, W.L. (2013). *Exceptional Children: An Introduction to Special Education.* (10th edition). USA: Pearson Education Inc.

Jung, D. Y., Shiwakoti, R., Niure, D. P., & Shrestha, S. H. (2018*). Individualized education plan differentiated instruction, and transition planning*. South Korea: Changwon National University, LUPIC.

Jung, D.Y., Song, M.J., Ha, C.W., Lee, S.R., Yang, M.H. & Dhungana, B.R. (2015, May). *An Introduction to Special Needs Education*. Changwon, South Korea: Leading University Project for International Cooperation, Changwon National University.

Kirk, S., Gallagher, J., & Coleman, M. R. (2015). *Educating exceptional children* (14th ed.). USA: Cengage Learning. (Unit 1 & 2)

Ministry of education (2009). *School Sector Reform Plan 2009_2015.* Kathmandu: Author. Retrieved from http://www.moe.gov.np/assets/uploads/files/SSRP_English.pdf

Ministry of Education (2015). *Nepal Education in Figure: At a glance.* Kathmandu: Monitoring, Supervision, and Evaluation Division. Retrieved from http://www.moe.gov.np/assets/uploads/files/Nepal_Education_in_Figures_2015.pdf

Ministry of Education (2017). *Inclusive education policy-2017.* Retrieved from file:///C:/Users/User/Downloads/Inclusive_Education%20(1).pdf

National Council for Special Education (2014). *Children with Special Educational Needs.* Retrieved from www.ncse.ie.

National Education Policy (2019). Retrieved from Nepal Releases National Education Policy-2019 (nepalisansar.com)

National Planning Commission (1985). *The Seventh Plan (1985-90).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (1992). *The Eighth Plan (1992-97).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (1997). *The Ninth Plan (1997-2002).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (2002). *The Tenth Plan (2002-07).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (2007). *Three Interim Plan (2007-10).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (2010). *Three Interim Plan (2010-13).* Retrived from http://www.npc.gov.np/new/eng/index.php

National Planning Commission (2014). *Three Interim Plan (2014-19).* Retrived from http://www.npc.gov.np/new/eng/index.php

Nepal Law Commission (1996). *Special education policy, 1996.* Retrieved from http://www.lawcommission.gov.np/en/documents/2015/08/special-education-policy-2053-1996.pdf

Nepal Law Commission (2015). *The Constitution of Nepal.* Retrieved from http://www.lawcommission.gov.np/en/documents/2016/01constitution-of-nepal-2.pdf

Regmi, N.R. (2017). *Inclusive education in Nepal:from theory to practice.* Germany: Ludwig-Maximilians University. Retrieved from https://edoc.ub.uni-muenchen.de/20150/7/Regmi_Narayan_P.pdf

Ryndak, D.L. & Alper, S. (2003). *Curriculum and Instruction for Students with Significant Disabilities.* (2nd edition). USA: Pearson Education

The National Education Commission (1971). Retrieved from http://www.moe.gov.np/assets/uploads/files/2028_English.pdf

The National Education Commission (1992). Retrieved from http://www.moe.gov.np/assets/uploads/files/2049_English_Summary.pdf

UNICEF (2003). *Examples of inclusive education Nepal.* Author: Regional Office for South Asia.

Course Title: Application of Arts in Education

Course Code: El. Ed. 495 | **Nature of Course:** Theory + Practical

Level: PGDE | **Credit Hours:** 3 (2 Th +1 Pr)

Semester: Second | **Teaching Hours:** 64 (32 Th + 32 Pr)

1. Course Description

The course includes the use of art and arts in education. It embraces an understanding of art and art in education, visual arts in education, performative arts in education, indigenous arts, artifacts, and education, and issues of arts education. This course explores integrating art forms in educational settings, focusing on how arts can enhance teaching and learning processes. It will cover theoretical frameworks, practical strategies, and contemporary practices that support using visual arts, music, drama, and movement in education. The course is designed for educators who wish to deepen their understanding of the role of arts in fostering creativity, critical thinking, and holistic development in students.

2. General Objectives

- Understand the theoretical foundations of arts integration in education.
- Develop skills in utilizing different art forms to enhance curriculum and instruction.
- Analyze the impact of arts on student engagement, learning outcomes, and social-emotional development.
- Design and implement arts-based activities and projects in educational settings.
- Evaluate contemporary practices and research in arts education.

3. Specific Objectives and Contents

Unit 1: Understanding Art and Arts in Education (12 Hours)	
Specific Objectives	Contents
• Explain the concept of teaching and learning • Elaborate teaching as a profession • Justify teaching as a science or an art	1.1 Introduction to art and arts in education 1.1.1. Concept of teaching and learning 1.1.2. Description of teaching as a profession Definition of art and arts in education

• Conceptualize between Arts in Education and Education in arts. • Be acquainted with the history of art and arts in education. • Describe different forms of arts in education • Describe the role of arts in education • Describe the initiation, need, and importance of the teaching license	1.1.3. Different forms of arts in education 1.1.5. Role of arts in education 1.2. Concept of arts in education and education in arts 1.3. History of arts in education 1.4. Teaching as a science or an art 1.5. Need, importance, and relevancy of teaching license
Teaching Learning Strategies	
Teachers' Efforts	Student's Efforts
• Provide learning materials to the students and ask them to develop ideas for classroom discussion on art and arts in education • Give a short lecture briefing on art and arts in education before running the discussion. • Form the group of students and run the discussion on the history of arts and art in education. • Form the group and run a debate for and against the issues. • Group discussion on arts in education and education in arts • Summarizes the discussion.	• Prepare discussion questions to share with their group. • Take part in the group discussion equally and draw ideas. • Get involved in debate for and against the use of arts in education. • Raise the questions about the contents and issues that were poorly understood.
Unit 2: Visual Arts in Education (16 Hours)	
Specific Objectives	Contents
• Describe the concept of visual arts • Explore the development and practice in the cultural setting and its educational implications; • Get acquainted with the potential to develop them in students;	2.1 Introduction to Visual Arts 2.2 Importance of visual arts in educational practices 2.3 Learning through Visual Arts 2.4. Technology-based (Digital) pedagogy in teaching arts 2.5. Discussion on writing report

• Assess the ICT and mass media and its relation to visual arts; • Develop ideas on visual arts to nurture art skills in students.	
Teaching Learning Strategies	
Teachers' Efforts	**Student's Efforts**
• Provide learning materials to the students and ask them to develop ideas for classroom discussion. • Give a short lecture briefing on visual arts in education before running the discussion. • Form the group of students and run the discussion on the importance of visual art in education. • Form the group and run a debate for and against the issues. • Summarizes the discussion.	• Prepare discussion questions to share with their group. • Take part in the group discussion equally and draw ideas. • Get involved in debate for and against using visual art in education. • Raise the questions about the contents and issues that were poorly understood.
Unit 3. Performative Arts in Education (16 Hours)	
Specific Objectives	Content
• Describe the concept of theatre and visual arts. • Plan, manage, and organize stage programs (debate, drama, comedy, caricature, ballet/singing and dancing, opera, etc.) • Prepare a list of possible programs and roles for each group (as an organizing, performing, or reporting group through classroom discussion).	• Concept of performative Arts. • Concept of designing different theatre programs (debate, drama, comedy, caricature, ballet/singing and dancing, and opera) and participating or performing their roles. • Learning through Performative Arts • Introduction and developmental Aspects of Music and dance and their educational Implications • Exploration of the ideas of music, songs, and dance from different ethnic and cultural group in educational activities
Teaching Learning Strategies	
Teachers' Efforts	**Student's Efforts**
• Provide learning materials to the students and ask them to develop ideas for classroom discussion.	• Prepare discussion questions to share with their group.

• Give a short lecture briefing on performative art in education before running the discussion. • Form the group of students and run the discussion on the importance of performative art in education. • Form the group and run a debate for and against the issues. • Summarizes the discussion	• Form groups, encourage students to participate in the group discussion, and motivate them to draw ideas critically. • Get involved in group work to develop and organize performative art in education. • Raise the questions about the contents and issues that were poorly understood.
Unit 4: Indigenous Art, Artifacts, and Education (12 Hours)	
Specific Objectives	Content
• Acknowledge with the concept of arts, artifacts education, and cultural heritage • Explain the use and importance of crafts, craft education, and cultural heritage. • Develop different types of crafts to promote craft education and cultural heritage.	4.1.Introduction to crafts, craft education, and cultural heritage 4.2.Discussion on the use and importance of crafts, craft education, and cultural heritage 4.3. Practices about different types of cultural artifacts
Teaching Learning Strategies	
Teachers' Efforts	**Student's Efforts**
• Provide learning materials to the students and ask them to develop ideas for classroom discussion. • Give a short lecture briefing on arts, artifacts education, and cultural heritage. • Form a group of students and lead the discussion on the concepts of arts, artifacts education, and cultural heritage. • Form the group and run a debate for and against the issues. Summarize the discussion.	• Prepare discussion issues to share with their group. • Make use of flip pedagogy. • Involve each group and encourage each member to perform their roles critically, participate equally in the group discussion, and draw ideas. • Get involved in debates on arts, artifacts education, and cultural heritage. • Raise the questions about the contents and issues that were poorly understood.
Unit 5: Issues of Arts in Education (8 Hours)	
Specific Objectives	Content
• Describe the issues of arts in education	5.1. Indoctrination of local and global values in education with arts 5.2. Description of power and integration of arts in the curriculum

• Highlight the influence of art in education • Explain the role of art in power integration and identity creation	5.3. Description of Arts as language and subjugation of indigenous and local identities. 5.4. Explanation of Arts as knowledge and subjugation of Indigenous knowledge
Teachers' Efforts	Student's Efforts
• Provide learning materials to the students and ask them to develop ideas for classroom discussion. • Give a short lecture briefing on arts and art in education before running the discussion. • Form the group of students and run the discussion on the issues of arts and art in education. • Form the group and run a debate for and against the issues. • Summarizes the discussion.	• Prepare discussion questions to share with their group. • Take part in the group discussion equally and draw ideas. • Get involved in debate for and against the use of art in education. • Raise the questions about the contents and issues that were poorly understood.

4. Evaluation Criteria

Assessment Scheme: Students will be assessed in theoretical and practical phases. The first one (theoretical phase) includes internal and external evaluation. The second phase includes students' actual performance in the field that they learn, discuss, and perform during the classroom activities. The weightage given to each assessment (internal, external, and practical assessment) equals one credit.

4.1. Theoretical Phase:

4.1.1 Internal Assessment: (40 Marks)

The concerned teacher will do an internal evaluation through mid-term class tests, preparation of term papers, paper presentations, project work, workshops, and assignments. One paper presentation in the class is mandatory. Similarly, submission of term papers, project work, participation, performance, and submission of the reflective report of the workshop, as well as assignment submission, are mandatory. The student who appears in the internal evaluation can attend the final examinations. The grades awarded to a student in a course are based on performance in both internal and external assessments. The practical aspect of any course is based on internal or external or both according to the nature of the course. The concerned teacher will carry out the internal assessment of the students based on the distribution of points as stated below. The format for the internal evaluation of the course is as follows:

Name of Campus..... Address.....

Course Code: El. Ed. 495 Course Title: Application of Arts in Education

Course: Elective Level/Year: PGDE 2nd Semester

Name	Class Test 20%	Project work and workshop 40%	Term Paper presentation and submission 20%	Attendance and Participation 20%	Total: 100%	Remarks
Attendance (10%)	-	-	-	10	10	
Participation (10%)	-	-	-	10	10	
First Assignment (work on paper/clay, painting, drawing, Book/video review, project work)	-	20	-	-	20	
Second Assignment (work on Stage performance/project work)		20			20	
Third Assignment (Term paper writing and presentation in the classroom)	-	-	20	-	20	
Fourth Assignment (written test)	20	-	-	-	20	
Total	20	40	20	20	100	

Note: FM represents Full Marks. If there is more than a 20 percent gap between internal and external marks, the marks of the external evaluation will be reduced to 20 percent (external marks). If so claimed, the documents of the internal marks should be submitted to the university.

4.1.2. External Evaluation (Final Examination): (40 Marks)

Office of the Controller of Examination will conduct the final examination at the end of each year. The distribution of points for the types of questions to be asked in the final examination is

as given below: The types and the number of questions for any paper in the final annual examination should be as follows (for a paper of 40 marks):

Types of questions	Total questions to be asked	Number of questions to be answered and number allotted	Total Marks
Group A: Multiple-Choice items	10	10 × 1	10
Group B: Short Answer Questions	6 (with 2 Or Questions)	6 × 5	30
Total			40

Note: There will be six short answer questions (1 to 6), and questions No. 2 and 5 contain one/one alternative questions. There will be two long answer questions (7 and 8), and question No. 8 contains one alternative question.

Practical Work (32 Hours): (20 Marks)

Practical Work I.

- Students organize an exhibition program to show seven products (at least two items of drawing, painting, sculpture, clay modeling, origami, collage, and crafting).
- Students compulsorily prepare a reflective report that reflects their performance in the organized programs

Practical Work II.

- Students organize a theatre program to show their performative arts (playing music/performing drama/comedy/caricature/singing/dancing) and perform their roles as performers, organizers, reporters, etc. (At least two performances are required).
- Students prepare a reflective report reflecting their roles and the whole program

5. Recommended Books and Reading Materials

Agarwal, M., & Verma, A. (2023). Integration of Performing Arts in Education: A Joyful, Retentive and Transformative Learning. *Research Journal of Humanities and Social Sciences, 14*(02), 61-68. https://doi.org/10.52711/2321-5828.2023.00013.

Anderson, T., & Milbrandt, M. K. (2005). Art for life: Authentic instruction in art. New York, NY: McGraw-Hill.

Anderson, T., Gussak, D., Hallmark, K. K., & Paul, A. (Eds.), (2010). Art education for social justice. Reston, VA: NAEA.

Blame, C. B. (2008). *The Cambridge Introduction to Theatre Studies.* Cambridge.

Bly, R. W. (2004). *Webster's New World Letter Writing Handbook*. Wiley Publishing, Inc.

Efland, A. D. (1990). *A History of Art Education: Intellectual and Social Currents in Teaching the Visual Arts*. Teacher's College Columbia University. https://books.google.com.np/books?id=LLo8DwAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false.

Eisner, E. W. (2002). The Arts and the Creation of Mind Yale University Press.

Elliott, M., Fleming, M., Frimberger, K., Schewe, M., & Even, S. (2019). Performative arts & pedagogy: A British perspective. *Scenario: A Journal of Performative Teaching, Learning, Research, XIII*(2), 10-22. https://doi.org/10.33178/scenario.13.2.2

Epley, N., & Gilovich, T. (2010). Anchoring unbound. *Journal of Consumer Psychology*, *20* (1), 20-24.

Greene, M. (1995). Releasing the Imagination: Essays on Education, the Arts, and Social Change. Jossey-Bass.

Jackson, T. (1993) Learning through Theatre: New Perspectives on Theatre in Education. Routledge: London.

Klarer, M. (2004). *An Introduction to Literary Studies* (2nd ed.). Routledge. https://library.navoiyuni.uz/files/an%20introduction%20to%20literary%20studies.pdf

Kokko, S., & Dillon, P. (2010). Crafts and craft education as expressions of cultural heritage: Individual experiences of and collective values among an international group of university students. *International Journal of Technology and Design Education, 20*(4).

Magdi, U. A. (2016). *Introduction to Graphic Design*. https://www.academia.edu/31241740/Introduction_to_Graphic_Design

Milbrandt, M. K. Shin, R., De Eça, T. T., & sieh, K. (2015). Visual art curricula, art teacher goals, and instructional time: Findings from an international survey. *International Journal of Education Through Art. Vol. 11 (2).* doi: 10.1386/eta.11.1.137_1.

Opoku-Asare1, N. A., Agbenatoe, W. G., & deGraft-Johnson, K. G. (2014). Instructional strategies, institutional support and student achievement in general knowledge in art: Implications for visual arts education in Ghana. *Journal of Education and Practice. Vol. 5 (21).* ISSN 2222-288X.

Paterson, J., Poppy, S., & Vaughan, A. (2017). Visual Arts. Oxford University Press.

Robinson, K. (2001). Out of Our Minds: Learning to be Creative. Capstone Publishing.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Ronmann, A. & Schneider, V. (2021). Arts in education: A systematic review of competency outcomes in quasi-experimental and experimental studies. Frontiers in Psychology. Doi: 10.3389/fpsyg.2021.623935, 12 | Article 623935, 1-13 https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2021.623935/full

Smith, D. L. (2011). Material culture and issues-based art education. The International Journal of Art Education.

Subedi, A. (1995). Nepali art: Nepali Utopia. *CNAS Journal, 22*(2), 113 -130. https://www.nepal.com/culture/art/

van Eck, C., & Bussels, S. (2010). *The Visual Arts and the Theatre in Early Modern Europe.* https://doi.org/10.1111/j.1467-8365.2009.00738.x.

Subject Specific Teaching Methods Courses

Course Title: Classroom Practice in ELT
Course Code: Eng. Ed. 491
Level: PGDE
Semester: Second

Nature of Course: Theory + Practical
Credit Hours: 3 (2 Th +1Pr)
Teaching Hours: 64 (32 Th + 32 Pr)

1. Course Description

This course is designed for students specializing in English in Post Graduate Diploma in Education. It aims primarily at developing practical pedagogical skills required for coping with the real classroom dynamics. It focuses more on the application of the theoretical insights introduced in this course and the one in the first semester, simulated though, rather than on the abstract concepts. It intends to equip students with firsthand experience of analyzing learner errors, devising and using quality means and strategies for student assessment, teaching language elements, and literary genres, employing ELT technology, and growing themselves professionally during their engagement in the teaching-learning tasks of ESL/EFL programs at the school level.

2. General Objectives

The general objective of this course is to provide close orientations to students in the application of the major theoretical insights akin to ELT. It will involve students mostly in the simulated activities to prepare them for the real classroom dynamics in teaching English as ESL/EFL to school children. Specifically, at the end of the semester, this course will enable the students to:

- analyze learners' errors for feedback and remedial purposes;
- devise quality means and strategies and employ them for assessing student achievements;
- teach different language elements and literary texts included in the English curricula at the school level;
- use ELT technology for effective teaching and learning; and
- be involved in different ELT-related pursuits to grow themselves professionally.

3. Specific Objectives and Contents

To attain the expected objectives of the course, general as well as specific ones, the following contents are included for teaching and learning.

Part I: Theoretical Section

Unit 1: Applying Contrastive Analysis and Error Analysis in Second/Foreign Language Teaching (5 Hours)	
Specific Objectives	**Contents**
• Define and describe contrastive analysis.	1.1 Contrastive analysis - Introduction to CA

• Assess the value of contrastive analysis. • State the assumptions and the transfer theory of contrastive analysis. • Carry out the contrastive analysis between two languages or the two varieties of the same language. • Introduce error analysis. • Assess the significance of learner errors. • Describe the concept fossilization. • Carry out an analysis of learner errors adopting the procedure for error analysis. • Critically assess the issues in error correction. • Correct learner errors using appropriate procedures/strategies so as to provide corrective feedback.	- Importance of CA in language teaching - Assumptions of CA - Transfer in language learning (L1-L2) - Procedures of conducting CA - Employing CA in language teaching-learning 1.2 Error analysis - Introduction to EA - Significance of identifying learners' errors - Fossilization of errors - Procedure for error analyses: Collection of errors, recognition of errors, classification of errors, explanation of errors, evaluation of errors - Correction and remediation of errors o Issues in error correction o Explicit and implicit correction o Instant and delayed correction o Oral and written corrective feedback
Activities	**Pedagogical Implications**
• Course facilitator will supply the learning materials (resources) to the course participants (prospective teachers) prior to the class, then instruct them to study and grasp the contents (main points) therein. They will be instructed to present their critical understanding of the contents in the class. • Course facilitator will deliver the contents using Power Point slides or any other way of displaying the contents as appropriate, followed by question-answer and discussion, with emphasis on the application of the contents in school level teaching and learning. • Course participants will take part in class presentation delivered by the	• Be acquainted with the basics of contrastive analysis and error analysis. • Apply the fundamental principles of contrastive analysis and error analysis. • Systematically compare and contrast different languages or varieties of a language. • Employ appropriate strategies of error correction so as to further motivate learners to learning.

facilitator on the given contents and closely observe and assess the class presented by their peers. • Facilitator will evaluate the class presentations done by the course participants and provide feedback for further improvement as required.	
Unit 2: Language Testing and Assessment (7 Hours)	
Specific Objectives	**Contents**
• State the basic concepts of language testing and assessment. • Assess the value of language testing and assessment. • Classify language tests. • Explain the qualities of a good language test. • Design a language test. • State the responsibilities of a language test administrator. • Administer a language test. • Prepare sets of scoring rubrics. • Score the performance of students in a reliable and valid manner. • Report test and assessment scores appropriately. • Use alternatives in assessing learners.	2.1 Introduction 2.2 Terminology: Measurement, test, assessment, evaluation 2.3 Value of language testing and assessment 2.4 Types of tests 2.5 Qualities of a good language test 2.6 Designing language tests - Test specification - Item writing - Piloting/Pre-testing - Developing a final test 2.7 Testing grammar and vocabulary 2.8 Testing language skills 2.9 Administering tests 2.10 Scoring rubrics 2.11 Scoring tests 2.12 Reporting scores 2.13 Alternatives in assessments 2.14 Ethics in language testing
Activities	**Pedagogical Implications**
• Course facilitator will supply the learning materials (resources) to the course participants (prospective teachers) prior to the class, then instruct them to study and grasp the contents (main points) therein. They will be instructed to present their critical understanding of the contents in the class. • Course facilitator will deliver the contents using Power Point slides or any other way of	• Construct quality test items for assessing the achievements of students in English curriculum at school level. • Analyze language test items in terms of facility value and item discrimination. • Administer language tests and assessments ethically. • Score the performance of students in a reliable way. • Report student performance appropriately. • Employ alternative assessments in accordance with the principles for learning.

displaying the contents as appropriate, followed by question-answer and discussion, with emphasis on the application of the contents in school level teaching-learning. • Course participants will take part in class presentation delivered by the facilitator on the given contents and closely observe and assess the class presented by their peers. • Facilitator will evaluate the class presentations done by the course participants and provide feedback for further improvement as required.	• Undertake classroom assessments for enhancing learning.
Unit 3: Techniques of Teaching Language Elements (8 Hours)	
Specific Objectives	**Contents**
• Use appropriate techniques for teaching English pronunciation. • Adopt suitable strategies for teaching English vocabulary and grammar.	3.1 Activities for Teaching Pronunciation - Activities for teaching sounds of English (consonants and vowels): Directing students' attention to the visible clues/hand gestures, pronouncing in clusters (consonants), isolating confusing spellings for focused practice, minimal pairs exercise, games (odd one out, guessing game, elicitation, using the online dictionary etc.) - Activities for teaching suprasegmental features of English (stress, intonation): *Activities of teaching stress*: The carryover technique, odd one out, emphasizing the length of the stressed vowel, practicing words with the same stress patterns, using the online dictionary *Activities of teaching intonation:* Highlighting the key words, illustrating intonation patterns in short utterances, integrating intonation with other coursework 3.2 Activities for teaching vocabulary of English - Word games, songs and rhymes, dictionary use, definition and single words, realia,

	pictures and drawings, antonym/synonym, realia, dramatization, contextualization 3.3 Activities for teaching grammar of English - Teaching grammar (word classes, grammatical functions and categories, clauses, sentences) - General procedure: presentation, focused practice, communicative practice, feedback and correction - Specific techniques for teaching grammar (boardwork, using the students and the teacher, using realia, dialogue building, dictation, dictogloss, drilling, games, songs and rhymes, providing feedback, error correction) 3.4 Activities for teaching language functions (only the selected language functions included in the Basic level English textbooks will be used for illustration purpose) - Modeling - Pair/demi-chorus drills - Role plays and simulations - Language work
Activities	**Pedagogical Implications**
• Course facilitator will supply the learning materials (resources) to the course participants (prospective teachers) prior to the class, then instruct them to study and grasp the contents (main points) therein. They will be instructed to present their critical understanding of the contents in the class. • Course facilitator will deliver the contents using Power Point slides or any other way of displaying the contents as appropriate, followed by question-answer and discussion, with emphasis on the application of the contents in school level teaching-learning. • Course participants will take part in class presentation delivered by the	• Use appropriate activities for teaching English sounds. • Teach suprasegmental features of English using appropriate activities. • Teach English vocabulary using suitable techniques. • Conduct effective classroom activities for teaching English grammar. • Teach language functions effectively. • Enable students to check the pronunciation of individual words as well as intonation patterns from online dictionaries. (Note that course facilitators are expected to internalize that teaching language elements inductively in **pragmatic** contexts is more

facilitator on the given contents and closely observe and assess the class presented by their peers. • Facilitator will evaluate the class presentations done by the course participants and provide feedback for further improvement as required.	effective and meaningful than teaching them deductively as discrete points in isolation.)
Unit 4: Teacher Professional Development and Technology in ELT (6 Hours)	
Specific Objectives	**Contents**
• State the concept of teacher professional development. • Assert the role of teacher motivation in ELT. • Assert self-assessment as a tool for teacher professional development. • Appreciate the role of ICT and e-resources for continuing professional development in ELT. • Be acquainted with the technology in ELT. • Illustrate CALL as a major ELT technology. • Assess how CALL can be applied for teaching and learning.	4.1Continuing professional development (CPD): Introduction 4.2 Teacher Motivation, Professional Development, and English Language Education 4.3 Teacher Self-assessment: A key to Teacher Empowerment 4.4 Developing Expertise Through Reflective Practice 4.5 Professional Development Through Cross-Curricular Collaboration. 4.6 E-resources for the Professional Development of English Teachers 4.7 CALL applications 4.8 Teacher and pupil classroom behaviour: activities used in CALL
Activities	**Pedagogical Implications**
• Course facilitator will supply the learning materials (resources) to the course participants (prospective teachers) prior to the class, then instruct them to study and grasp the contents (main points) therein. They will be instructed to present their critical understanding of the contents in the class. • Course facilitator will deliver the contents using Power Point slides or any other way of displaying the contents as appropriate, followed by question-answer and discussion, with emphasis on the application of the contents in school level teaching-learning.	• Involve oneself in continuous ELT professional development initiatives. • Apply different CALL activities for the teaching and learning of English as a second/foreign language. • Identify appropriate ELT technology and e-resources for developing oneself as an ELT professional. • Use e-resources for effective teaching and learning.

• Course participants will take part in class presentation delivered by the facilitator on the given contents and closely observe and assess the class presented by their peers. • Facilitator will evaluate the class presentations of the course participants and provide feedback for further improvement as required.	
Unit 5: Literature in ELT (6 Hours)	
Specific Objectives	**Contents**
• Discuss the role of literature in language classes • Analyse the challenges in using literature • Explain the activities and procedures adopted in teaching literary texts	5.1 Literary genres in the ESL/EFL Classroom - Introduction - Literary texts for developing language skills and language elements 5.2Challenges in using literature: Linguistic, cognitive and cultural 5.3 Teaching poetry - Reasons for teaching poetry - General procedure for teaching poetry o Dealing with the pre discussion questions o Predicting author's background information o Reciting poem o Discussing the (unusual) language features o Describing the factual information o Exploring meaning in context o Appreciating a poem o Summarizing the text 5.4 Teaching drama - Reasons for teaching drama - General procedure for teaching drama o Briefing the background information of the author o Giving the context of the drama o Role play and simulation o Describing the plot and events o Summarizing and presenting the theme

	5.5 Teaching short stories 5.6 Reasons for teaching short stories 5.7 General procedure for teaching short stories ○ Dealing with the pre-discussion questions ○ Background information of the author ○ Narrating the events (using question-answer method) ○ Summarizing ○ Relating the theme with students' life experiences
Activities	**Pedagogical Implications**
• Course facilitator will supply the learning materials (resources) to the course participants (prospective teachers) prior to the class, then instruct them to study and grasp the contents (main points) therein. They will be instructed to present their critical understanding of the contents in the class. • Course facilitator will provide the course participants with a poem to read, divide them into different groups. S/he will assign them the tasks to do. S/he will encourage them to hold free and semi controlled discussion, adopt cooperative tasks and ask the groups to present their answers. • Facilitator will evaluate the presentations done by the groups and provide feedback for further improvement as required. • Course facilitator will select a drama from the textbook. S/he will assign three of the course participants the role and ask them to play the assigned role. After the performance, s/he asks the students to do the exercise. S/he will facilitate the students if they need.	• Discuss the practice of using literature for the purpose of language teaching. • Answer the text-based questions. • Make a list of unfamiliar words/phrases and use them in sentences. • Identify the figures of speech, prosodic features used in the poem. • Write the central idea of the literary texts. • Describe the main characters of the drama/short story. • Paraphrase the given part/s of literary texts. • Describe the given scenes of the drama/short story. • Unscramble the given events to make a story.

• Course facilitator will provide the course participants with the jumbled events or scrambled events of a story and ask students to put them in order. When students unscramble the events, it becomes a coherent narrative.	

General Note on Instruction (Applicable for all Units):

Course facilitators are, in general, expected to deal with the contents of all units considering the fact that local contexts render more meaningful and prompter comprehension, and also that the classroom time can be better used for more collaborative and problem-solving activities rather than delivering theoretical concepts, provided that course participants are encouraged to grasp the theoretical concepts by reading the materials provided prior to the class time.

So far practicable, it is suggested that course facilitators plan for the participants' reading the given materials on their own prior to the class time; and use the class time for teacher-student interaction with a view to deepen their understanding. Feedback should be provided to the participants during interaction, so that they can reflect on the contents and further their insights.

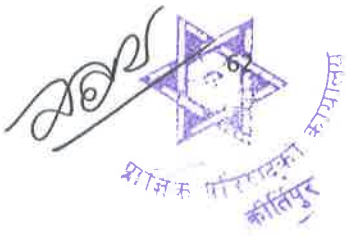
Part II: Practical Works (for Units 1-5)

Unit	Tasks	16 Hours
1	Go to a school and consult 15-20 students of Basic Level to write an essay (400-500 running words in length) on a given topic; and collect their written works. Then, identify the errors made by the students, classify into categories, and indicate the possible sources of errors. Further, design appropriate classroom activities for their correction and remediation.	4 (1+2+1)
2	Construct a test for testing one of the language skills, administer the test to a group of Basic Level students, score their performance, prepare a report of scores, and then share it in the classroom. Alternatively, you can do the same for testing one of the aspects/elements of language.	4 (1+1+1+1)
3	Design five activities (that may include language games as well) or 5 exercises (an exercise having 4 problems) for teaching English vocabulary and grammar each. Then, practise using some of those activities in the class with your peers. Alternatively, you can do it for teaching other elements of language using other activities suggested during study. As far as possible, individual course participants will do the task on different topics.	3 (2+1)
4	Study the readings prescribed during study; and write, in about 1500 words, how the English language teachers at Basic Level in Nepal can grow themselves professionally. Alternatively, you can prepare some CALL activities for teaching the language aspects/elements and skills and	2

	implement them in the classroom. Collect the feedback and comments of your course facilitator and peers and improve your activities.	
5	Design activities for teaching each of the literary genres prescribed during study (poetry, drama, short story) and simulate the activities for teaching a genre in the classroom. Collect the feedback and comments from your course facilitator and peers; then improve your activities as well as presentation accordingly.	3 (1+1+1)
Note: Course participants are supposed to create a file of all the practical tasks/activities and present it during the final practical examination.		

4. Evaluation Criteria

Criteria	Marks	Remarks
Internal evaluation (40%)		
Theory (25 marks)		
Attendance: 80% (compulsory)	3	Scores will be provided to course participants based on attendance: 80-85% = 1; 86-95% = 2; above 95% = 3)
Class Presentation	2	Each course participant will present on at least one topic from the course of study, with the supervision of the facilitator.
Review Work (First Assignment)	5	Each student will review a book/book chapter/ research article and prepare a review report in about 1000 words.
Paper Writing (Second Assignment)	5	Each student will write a reflective paper on a topic related to ELT classroom practice in about 1000-1500 words.
		Note that these are only the suggested tasks. Course facilitators might use their creativity and suggest course participants doing similar other tasks.
Semester-End Test	10	A written test of 40 full marks will be administered. The test will include the items as follows. • Objective Items: 10 ×1=10 • Short-Answer Questions: 6×5=30 • Duration of Test: 1½ hrs. The obtained score will be re-calculated so as to comply with 10 Full marks.
Total	25	



Practical (15 marks)		
Analysis of one Basic Level English Test.	5	Course participants will submit a report of the analysis of a Basic level English test in terms of the test qualities they have studied in the course. (Evaluation criteria: Report =3 marks; Presentation = 2 marks)
Descriptive Essay on Teaching Literary Genres at Basic Level.	5	Course participants will write a descriptive essay discussing the different activities and their classroom procedures for teaching a specific literary genre at the Basic level.
Self-assessment Report	5	Individual course participants will prepare a self-assessment report on one of the following: • Their classroom presentations. • A teacher training programme they have participated in, if any. • Any classroom teaching experience, if any, in which they worked as a teacher (based on their memory). The experience might be of their success or failure as a teacher, the situation in which they had to deal with unexpected situation or some unruly student/s, and the like. • The attempts they have made to grow as a professional teacher.
Total	15	
Note that these are only the suggested tasks. Course facilitators might use their creativity and suggest course participants doing other similar tasks.		

Criteria	**Marks**	**Remarks**
External evaluation (60%)		
Theory (40 marks)		
External Examination	40	Group A: Multiple Choice Questions 10×1 = 10 Group B: Short Answer Questions with two Or Questions (6×5) =30 Marks.
Practical (20 marks)		

Preparation and Presentation of a Report on Error Analysis. Or Preparation and Presentation of a Report on Contrastive Analysis.	4	Course participants will construct a subjective test item, administer it and collect the deviated forms of students' performance, then analyze the forms and prepare a report for presentation. Alternatively, the course participants can compare and contrast the two languages or the two varieties of the same language, and prepare a report for presentation.
Construction and Analysis of Language Test Items.	4	a) Course participants will prepare 20 objective test items from Grade 8 English curriculum, administer the test items and analyse the items in terms of item facility and discrimination. b) Course participants will prepare 20 subjective test items from Grade 8 English curriculum representing the Bloom's (1956) taxonomy or subsequent revisions of instructional objectives. • The two sets of items mentioned above will be compiled together and the compiled file will be submitted in the final practical examination.
Seminar/ Workshop Teaching Language Elements	3	Course participants will undertake any one of the tasks below. • As an activity of teacher professional development, they will conduct a seminar or a workshop on relevant issues pertaining to ELT at school level. The participants in the seminar will be the course participants themselves, and the teachers from the schools in the vicinity of the campus. The campus chief, assistant campus chiefs, head of the department and faculty members will be the invitees. A short report will be prepared and presented in the final practical examination. • Course participants will prepare 3 lesson plans for teaching vocabulary and grammar each. The lesson plans will be compiled together in a file.
File of the Practical Tasks (Units 1-5)	5	Individual course participants will present the file of the practical work they have done during the coursework (for units 1-5, see the Theory section of the course).

Presentation/Performance in the final viva	4	Score will be awarded as per the participants' performance in the oral presentation and question-answer in the final practical examination.
Total	20	
An Evaluation Committee comprising the HOD, the subject teacher, and the external examiner appointed by the Campus/Department will evaluate the works and presentations of course participants; and the HOD will submit the marks to the Office of the Dean.		

5. Recommended Books and Reading Materials

Barber, D. & Jones, C. (2018). ETpedia grammar. Pavilion Publishing and Media Ltd. (Unit 3)

Beatty, K. (2010). Teaching and researching: Computer-assisted language learning. Pearson Education Limited. (Unit 4)

Bobkina, J. & Dominguez, E. (2014) The use of literature and literary texts in the EFL classroom: Between consensus and controversy. *International Journal of Applied Linguistics & English Literature*. Vol. 3 (2), 248-60. (Unit 5)

Carter, R.& Long, M. (1998). The web of words. Cambridge University Press.

Celce-Murcia, M & Hilles, S. (1988). Techniques and resources in teaching grammar. OUP. (pp. 17-38)

Dhanavel, S. P. (Ed.) (2022). Continuing Professional Development of English Language Teachers: Perspectives and Practices from India (3-17, 19-36, 37-54). Springer.

Douglas, D. (2010). Understanding language testing (pp. 1-37, 54-63, 67-80). Routledge. (Unit 2)

Erben, T., Ban, R. & Castañeda, M. (2009). Teaching English language learners through technology. Routledge. (pp. 56-64)

Heaton, J. B. (1990). Writing English language tests (pp. 5-6, 34-187). Longman. (Unit 2)

Hubbard, P. (2024). Future directions in English language teacher education in a changing world (189-201). In J. S. Lee & D. Z. M. M, Gu (Eds.). Technology and English Language Teaching in a Changing World. Palgrave.

Hughes, A. & Hughes, J. (2020). Testing for language teachers (pp. 1-7, 11-77, 87-191, 206-226, 238-241). Cambridge University Press. (Unit 2)

James, C. (2013). Errors in language learning and use (pp. 90-266). Routledge. (Unit 1)

Ke, P. (2019). Contrastive linguistics (pp. 1-45). Springer. (Unit 1)

Lazar, G. (1993). Literature and language teaching: A guide for teachers and trainers. Cambridge University Press. (Unit 5)

Linda, L. (2018). Tips for teaching pronunciation: A Practical Approach. (pp. 17-162)

Lo, Y. Y. (2020). Professional Development of CLIL Teachers. Springer.

Matreyek, W. (1983). Communicating in English. New York: Pergamon Press. (Unit 3)

McMillan, J. H. (2024). Classroom assessment (pp. 1-35, 72-111)). Pearson. (Unit 2)

Pawlak, M. (2014). Error correction in the foreign language classroom (pp. 89-158). Springer. (Unit 1)

Richards, J. C. (Ed.), (1974). Error Analysis (pp. 19-27, 31-63). Longman. (Unit 1)

Sadeghi, K., Thomas, M. & Ghaderi, F. (2023). Introduction: Options and Issues in CALL (PP. 1-7). In K. Sadeghi, M. Thomas & F. Ghaderi (Eds.), Technology-Enhanced Language Teaching and Learning. Bloomsbury.

Skorczynska, H., Rubio, M. S. & Carri_o-Pastor, M. L. (2016). Second Language Teaching and Technology: An Overview (13-32). In M. L. Carrio-Pastor (2016). Technology Implementation in Second Language Teaching and Translation Studies. Springer. (Unit 4)

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Course Title: Pedagogy of Mathematics II

Course Code: Math Ed. 491
Level: PGDE
Semester: Second

Nature of Course: Theory + Practical
Credit: 3 (2 +1)
Teaching Hours: 64 (32 Th + 32 Pr)

1. Course Description

This course is designed to impart different methods of teaching mathematics at the school level under the teacher education program. To be an efficient school mathematics teacher, they should have the knowledge and skills of different approaches to mathematics, including specific methods of teaching school arithmetic, algebra, geometry, calculus, trigonometry, statistics, and probability. This course focuses on the conceptual understanding of the mathematical contents through effective pedagogies that apply to teaching mathematics at the school level. The course containing six units intends to empower learners to become resourceful and confident mathematics teachers. It seamlessly builds on the learner's prior knowledge by exploring effective teaching methods with the integration of technology. Further, this course deals with the core mathematical concepts of school-level mathematics. Beyond the content knowledge, learners will gain practical experience through crafting lesson plans, activities, and assessments that are implacable for prospective school mathematics teachers.

2. General Objectives

- To enrich the prospective teachers on the fundamental mathematical contents for teaching at the school level.
- To introduce and apply different instructional strategies in teaching mathematics at the school level.
- To enhance competencies in developing models suitable for teaching mathematics at the school level.
- To boost the capacity of prospective teachers in designing lessons for teaching school mathematics by using ICT.

3. Specific Objectives and Contents

Unit 1: Approaches of Teaching Mathematics at School Level (8 Hours = 4 Th + 4 Pr)	
Specific Objectives	**Contents**
• Integrate the different teaching methods in designing instructional strategies. • Explore the essence of theorem proving and problem-solving in mathematics. • Analyze the role of concept image and concept definition in dealing with mathematics problems. • Integrate ICT in teaching and learning mathematics.	1.1 Applications of learning theories and teaching methods in instructional designing 1.2 Concept and issues of problem-solving including theorem-proving approaches in mathematics 1.3 Concept and concept image in mathematics

	1.4 Issues of integrating ICT in mathematics education
Activities	**Pedagogical Implications**
• As a pre-lesson activity, the instructor will provide learning materials/resources of different teaching and learning methods to each or group of prospective teachers. Prospective teachers will prepare a summary of different teaching and learning methods and share in the common platform (LMS). A similar type of flipped approach can be applied to other lessons as well. • The facilitator will prepare a discussion forum where, prospective teachers and instructor can post their reflections, comments and argument. • In the in-lesson activities: Facilitator will summarize and present the common ideas shared by the prospective teachers and add a synopsis of learning theories. After that teacher will give a small presentation regarding the implications of teaching methods in mathematical contents. • Make a group of prospective teachers (4-5), divide the task from the reading text, prepare the presentation using MS PPT, and present it in the class. • Prepare at least one activity based on the different methods of teaching and learning. • Instructor will present shortly on the issues of theorem proving and problem-solving in mathematics. S/he will also conduct a discussion regarding the importance of the two approaches. • Discuss the aspect of concept image (based on different learning theories) and concept definition in mathematics with reference to a particular example. • Discuss on the integration process of ICT as the mathematics resources and also discuss this issue in the context of Nepal. Take particular examples of learning resources and elaborate	• In the process of designing instructional activities, prospective teachers can use different learning theories based on the teaching/learning content • Different methods of teaching and learning can be applied in the preparation of lesson plans and apply them in the real classroom practice • Concept image and concept definition are crucial to teach problem-solving and theorem proving in mathematics. So, the particular example can help prospective teachers on how the definition should be taught in the classroom. • Techniques of teaching mathematics concepts can be applied in the classroom. • Develop the digital resource-materials using different tools and techniques.

them as the process of integration of these resources. • As the post lesson activities, the instructor will assign tasks to the prospective teachers. The tasks may be the practical work as well. For example: • Formulate any two questions as the problem-based learning. • Design the lesson targeting problem-solving methods. • Give critical reflections regarding the approaches being used in the module. Think of applying a similar style in your real classroom practices	
Unit 2: Teaching Arithmetic at School (11 Hours = 6 Th + 5 Pr)	
Specific Objectives	**Contents**
• Develop strategies of teaching arithmetic at the school level. • Design lesson plans to teach the fundamental concept of arithmetic. • Develop and use of the instructional materials to teach the concepts of arithmetic content.	2.1 Strategies for teaching arithmetic at the school level. 2.2 Nature of School's arithmetic Teaching fundamentals concepts of school's arithmetic (Number concept, fractions, ratio and proportion, exponent, percent and percentage, and profit and loss) Units of measurement, area, volume, and practical application for cost estimation)
Activities	**Pedagogical Implications**
• As the pre-lesson activities, the instructor provides the reading text on the nature of school arithmetic and fundamental concepts that are useful in teaching arithmetic at the school level. • The instructor will make the 4-5 members group then the group members will prepare the presentation based on the reading text. The prepared document will be uploaded to the LMS or submitted to the instructor.	• From this unit, prospective mathematics teachers will strengthen their content knowledge as well as enhance the skills to deliver contents effectively. • Strengthening the pedagogical knowledge through individual work, collaboration in the group, presentation, and gaining insight

• The instructor will review the submitted documents and give feedback. • In the in-lesson activities group members will present their documents. One group member will present, and other members will comment, raise queries, and discuss on the presented concepts. The instructor will also give her/his remarks on the presentation. • Instructor will prepare and present one model lesson based on the unit content and prospective teachers will observe the class, which will work as a takeaway for the prospective school mathematics teachers. • In the lesson activities, the instructor will present the key ideas of arithmetic. For example: ratio and proportion. Why do ratios and proportions are the fundamental concepts of school arithmetic? • During the post-lesson activities, prospective teachers will prepare the connection charts of different concepts of arithmetic.	from the presentation of peers and instructors. • Prospective teachers will develop and teach lessons, prepare learning materials, and develop assessment tools in arithmetic • Prospective teachers will use digital tools to as be learning resources which will also improve their digital competencies as well.
Unit 3: Teaching Algebra at School (11 Hours = 6 Th + 5 Pr)	
Specific Objectives	**Contents**
• Trace the development of algebraic symbolism and the concept of algebra. • Use the fundamental concept of algebra in teaching algebra at school. • Explore the interrelations between the different contents of school algebra. • Develop instructional design for the topics of algebra. • Develop interactive learning resources (materials) for teaching/learning algebraic concepts. • Design learning activities regarding different topics of algebra for engaged and interactive learning.	3.1 Development of algebraic symbolism 3.2 Strategies to teach fundamental concepts of school algebra o Real number system and their properties o Conceptualize variables and constant, square and cube roots, exponents o Equations, identities and inequalities o Solving linear equations, factors and factorization, and roots of polynomial equations. o Dealing with verbal problems in algebra

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Activities	Pedagogical Implications
• As the pre-lesson activities, prospective teachers will be asked to trace the historical development of the concept of algebra. For this activity, the instructor will not provide any specific reading text so the prospective teachers will explore the appropriate resources from given references or the web as a task. • Make a group of 4-5 prospective teachers. Assign the content for each group. Each group will prepare the presentation based on the content provided. The prepared content will be uploaded to the LMS. In the classroom, the group members will present it. The instructor will provide feedback and concluding remarks on their presentations. • Instructor will present key concepts that are important in learning algebra, for example, equations and identities, inequalities, and roots of polynomial equations. During the presentation, prospective teachers will be instructed to reflect and share their thoughts on those presentations. As the post-lesson activities, prospective teachers will develop the lessons based on different strategies. Prospective teachers should develop the lessons based on problem-solving, problem-based, and inductive methods.	• Develop the skills to search for appropriate learning resources. • Develop a self-learning attitude and strengthen the metacognitive process through learning, unlearning, and relearning. • Develop the skills to collaborate in the group. • Enhance prospective teacher's participation in the teaching and learning process. • Develop the analytical capacity of the presentation through argument, discussion, and reflection. • Prospective teachers will develop and teach lessons, prepare learning materials, and develop assessment tools for the course of algebra.
Unit 4: Teaching Probability and Statistics at School (9 Hours = 3 Th + 6 Pr)	
Specific Objectives	**Contents**
• Define fundamental concepts of probability theory such as sample space, favorable cases, dependent and independent events etc. • Describe the properties and applications of binomial and normal distributions. • Apply various sampling techniques to obtain representative samples from the populations. • Develop statistical models to analyze complex datasets and draw meaningful conclusions.	4.1 Teaching fundamental concepts of probability theory o Conditional and independent events o Binomial and normal distributions o Population, sample and sampling techniques o Measurement scales

	○ Selection of appropriate statistics
Learning Activities	**Pedagogical Implications**
This is the pure and applied concept of mathematics. So, we need to divide the learning activities into two phases: Concept formation and application of concept in the real field. • For the theoretical concept of probability and statistics, the instructor will provide the reading materials for the prospective teachers. A group of prospective teachers will prepare their presentation and present to the whole class. The instructor will facilitate it and give concluding ideas based on the prospective teacher's presentation. • The instructor will use a problem-based learning (PBL) approach for the real-life application of probability and statistics. In the problem-based design, prospective teachers will search for the problem, which is in an ill-structured form, then design the problem, devise the appropriate solution techniques, execute the solution and evaluate and conclude the result. In this process, the instructor will play a role of facilitator.	• Promote active engagement in learning through group work, presentation, comments, and reflection. • Real-life application: The use of PBL which connects the theoretical concept of mathematics with real-life situation. So, prospective teachers can realize the value of mathematics by solving the practical and contextual problems • Critical thinking and metacognitive learning: In the process of fieldwork, prospective teachers can learn many different things, correct misunderstandings, and develop firm ideas on the concepts through learning, unlearning, and relearning process.
Unit 5: Teaching Trigonometry and Calculus at School (13 Hours = 7 Th + 6 Pr)	
Specific Objectives	**Contents**
• Explore the strategies to teach trigonometry and calculus at the school level. • Explain the historical development of trigonometry and calculus. • Analyze the interrelation among the contents of trigonometry. • Explain the fundamental concepts used in calculus such as functions, limit, continuity, etc. • Integrate prospective teacher-centered approaches while teaching different concepts of trigonometry and calculus.	5.1 Historical development and application of trigonometry 5.2 Strategies to teach fundamental concepts on school trigonometry ○ Angle of rotation, degree, and radian measure ○ Concept of unit circle in trigonometry ○ Trigonometric ratios and general values ○ Trigonometric identities

• Develop instructional design to teach the contents of trigonometry and algebra. • Construct interactive learning resources for engaged and interactive learning.	○ Height and distance 5.3 Strategies to teach fundamental concepts of Calculus ○ Functions and their graphs, domain, and range ○ Infinitesimal and indivisible ○ Concept of limit and continuity of the function
Activities	**Pedagogical Implications**
• As the pre-lesson activities, prospective teachers will prepare the presentation on the historical development of trigonometry and calculus. • The instructor will present the key ideas of teaching trigonometry. • Make a group of 4-5 prospective teachers, and allocate the contents of trigonometry for each group. Group members will prepare the presentation, upload it in the LMS, and present it to the whole group. The instructor will review the presentation and provide essential feedback for the prospective teachers. • The instructor will summarize the learners' presented contents of trigonometry. • To visualize the contents of trigonometry and calculus, the instructor and prospective teachers will use different applications like GeoGebra, Mathematica, and online sites. • As the post-learning activities, prospective teachers will prepare the lessons for the contents of trigonometry and calculus.	• Collaboration and exploration: The use of digital tools can facilitate collaboration and communication among prospective teachers. Online platforms can be used for groupwork, discussions and sharing ideas. • Visualization and engagement: The use of different digital tools can bring abstract mathematical (trigonometry and calculus) concepts to real-life situation through simulation, animations, and interactive exercises. Self-learning activities, presentations, use of digital and learning management systems can increase the active engagement of the prospective teachers.
Unit 6: Teaching Geometry at School (12 Hours = 6 Th + 6 Pr)	
Specific Objectives	**Contents**
• Explain the axiomatic system and its properties in geometry • Exemplify geometric invariants • Review the relevancy of experimental verification and proof systems in geometry • Summarize the fundamental concepts of school geometry	6.1 Issues in teaching geometry at school level ○ Axiomatic systems and their properties ○ Geometric invariants ○ Experimental verification and proof systems in Geometry

• Compare and contrast isometric and non-isometric transformations • Analyze the issues of teaching geometry in school • Develop (construct) the strategies for teaching geometry at school levels • Use digital tools for the visualization of geometric objects and relationships	6.2 Teaching fundamental concepts of geometry and geometric transformation, symmetry, angle properties, constructions, congruence, perimeter, area and volume, enlargement and similarity, Pythagoras theorem, circle, isometric and non-isometric transformations
Learning Activities • As the pre-lesson activities, prospective teachers will create/design the digital posters illustrating the basic axioms of geometry (point, line, plane, etc.) with their definitions and relationships. • Prospective teacher will explore dynamic software (e.g. GeoGebra) to manipulate shapes and observe how angle measures, areas, and other properties get changed. The instructor will support prospective teachers in handling the software. • Prospective teachers will work in pairs to identify and explain geometric properties that remain unchanged under certain transformations (e.g. length under reflection, translation, angle measures under rotation etc.). • Prospective teachers will participate in the discussion forum arguing for the importance of both experimental verification and formal proof in solidifying geometric understanding. The instructor will coordinate the discussions, integrate the responses, and summarize the concepts. • Prospective teacher will design a lesson plan incorporating multiple strategy (e.g., hands-on activities, technology, differentiated instructions) to teach a specific geometric concept.	**Pedagogical Implications** • Active learning: Incorporate the activities like preparing posters, manipulating software, and designing lesson plans to promote active engagement of prospective teachers in learning. • Multiple intelligence: Visual learners will be benefitted from preparing posters and using dynamic software. Kinesthetic learners get engaged through hands-on exploration and debates. • Collaboration and communication: Pair works, discussions, and lesson presentations encourage prospective teachers to collaborate, explain their reasonings, and learn from each other. • Promote technology integration, reflection and metacognition, critical thinking and problem-solving as an effective learning process
Practical Work	
Unit 1: Approaches of Teaching Mathematics at School (Individual Work)	
Activities	**Description**

Application of Learning Theories	Prepare a chart based on the content of school mathematics including different learning theories, appropriate teaching methods, and assessment strategies.
Curriculum Mapping	Prepare a curriculum mapping for one unit including learning objectives, contents, resources, activities, and evaluation system.
Lesson Design in Problem-solving and Problem-Based Learning	Design any two lessons using problem-solving and problem-based learning approaches.
Unit 2: Teaching Arithmetic at School (Individual Work)	
Development of Lesson Plan (following one specific methods of teaching such as problem-solving, problem based etc.)	Develop a lesson plan to teach the fundamental concept of arithmetic.
Learning Resources	Develop the instructional materials for the designed lessons (at least one digital material).
Learning Evaluation	Devise the test paper to measure the learning outcomes (SR and CR).
Unit 3: Teaching Algebra at School (Group Work)	
Historical Timeline Project	Trace the historical development of algebra (e.g. contribution of Egyptians, Babylonians, Greeks, etc.). Prepare a sheet (digital or physical), plotting key historical figures and their contributions to the evolution of algebraic concepts
Real-world Application Hunt	Work in pairs and find real-world examples of basic algebraic concepts like variables, expressions, and

	equations. Each pair should present their findings to the class, explaining how the concept applies to the chosen example
Digital Resource Development	Use any mathematical software like GeoGebra, Microsoft mathematics, or Mathsbot etc. and develop any one template that is useful to teach the contents of school algebra
Unit 4: Teaching Probability and Statistics at School (Group Work)	
Problem Design (in group)	Search the problems in the context, design the problem, and give appropriate solutions to the problems using the PBL approach
Statistical Model (in group)	• Prepare the questionnaire for the prospective teachers • Develop a sampling frame and select a sample • Go to the school and collect the data • Analyze the data • Write the report
Unit 5: Teaching Trigonometry and Calculus at School (Individual Work)	
Lesson Design	Design any two lessons from calculus and trigonometry using problem-solving and problem-based learning approaches
Learning Resources Development	Develop any two learning resources at least one digital resource to support the learning content of the designed lesson
Unit 6: Teaching Geometry at School (Individual Work)	

Lesson Design	Develop any two lessons using inductive and deductive methods
Learning Resource Develop	Develop a template in GeoGebra to teach experimental verification and theorem-proving
Assessment Design for Overall Courses • Develop a set of questions (75 marks) including at least 10 multiple-choice items • Administer the test and analyze the results	

4. Evaluation Criteria

4.1 Evaluation for Theory Course (Internal Assessment and External Assessment)

Nature of Course	Internal Assessment	External Assessment (Semester Examination)	Total Marks
Theory	25 Marks	40 Marks	65 Marks

Note: Prospective teachers must pass separately taking internal assessments and semester examinations both.

4.1.1 Internal Evaluation **25 Marks**

Internal evaluation will be conducted by the course teacher based on the following activities:

1.	Attendance and Participation in Learning Activities	5 Marks
2.	First Assignment	5 Marks
3.	Second Assignment	5 Marks
4.	Third Assignment/Term Exam	10 Marks
	Total	25 Marks

4.1.2 External Evaluation (Final Examination) **40 Marks**

Examination Division, Office of the Dean, Faculty of Education, will conduct the final examination at the end of the semester. The marks distribution will be as follows:

Objective Questions (Multiple Choice Questions	(10 ×1)	= 10 Marks

Subjective (Short Answer Questions: 6 Questions with 2 Or Questions (6 × 5)	= 30 Marks
Total	40 Marks

4.2 Evaluation for Practical Part (Internal and External Evaluation)

Nature of course	Internal Evaluation	External Evaluation	Total Marks
Practical	15 Marks	20 Marks	35 Marks

4.2.1 Internal Evaluation 15 Marks

Internal Practical evaluation will be conducted in the campus/department by the evaluation committee in the chair of the head of the department, subject teacher, and expert nominated by the campus/department chief.

Marks distribution for practical internal evaluation will be as follows.

SN	Description	Marks
1	Preparation of curriculum mapping, development of historical timeline project, and construction of test items	5 Marks
2	Preparation of sample instructional (PBL) design, lesson plan, and presentation	5 Marks
3.	Construction and preparation of instructional materials and development of learning resources	5 Marks
	Total	**15 Marks**

4.2.2 External Evaluation 20 Marks

External practical evaluation will be conducted in the campus/department by the evaluation committee under the chair of the department head, subject teacher, and expert nominated by the campus/department chief.

Marks distribution for practical external evaluation will be as follows.

1.	Preparation of curriculum mapping, development of historical timeline project, and construction of test items	5 Marks
2.	Preparation of sample instructional (PBL) design, lesson plan, and presentation	5 Marks
	Construction and preparation of instructional materials and development of learning resources	5 Marks

3.	Viva-voce	5 Marks
	Total	**20 Marks**

5. Recommended Books and Reading Materials

Arcavi, A., Drijvers, P., & Stacey, K., (2017). *The learning and teaching of algebra: Ideas, insights, and activities*. Routledge.

Duch, B. J., Groh, S. E., & Allen, D. E. (2001). *The power of problem-based learning*. Stylus Publishing, LLC.

French, D. (2004). *Teaching and learning geometry: Issues and methods in mathematical education*. Continuum International Publishing Group.

Fulop, E. (2015). Teaching problem-solving strategies in mathematics. *LUMAT: International Journal on Math, Science and Technology Education*, *3*(1), 37–54. https://doi.org/10.31129/lumat.v3i1.1050

Gibilisco, S. (2003). *Trigonometry demystified.* McGraw-Hill Companies, Inc.

Goos, M., Stillman, G., & Vale, C. (2007). *Teaching secondary school mathematics: Research and practice for the 21st century*. Allen & Unwin.

Grouws, D. A. (1992). *Handbook of research on mathematics teaching and learning. A Project of National Council of Teachers of Mathematics.* Macmillan Publishing Company.

Gupta, S. C. & Kapoor, V. K. (2002). *Fundamentals of mathematical statistics*. Sultan Chand & Sons.

Haggarthy, E. (2004). *Aspects of teaching secondary mathematics: Perspectives on practice*. Routledge Flamer.

Hillman, W. (2003). Learning how to learn: Problem-based learning. *Australian Journal of Teacher Education, 28*(2). http://dx.doi.org/10.14221/ajte.2003v28n2.1

Hine, G. et al. (2016). *Teaching secondary mathematics*. Cambridge University Press.

Hung, W. (2009). The 9-step problem design process for problem-based learning: Application of the 3C3R model. *Educational Research Review, 4*, 118-141. https://doi.org/10.1016/j.edurev.2008.12.001.

Katz, V. J. (2007). Stages in the history of algebra with implications for teaching. *Educational Studies in Mathematics, 66*, 185-201. https://doi.org/10.1007/s10649-006-9023-7

Katz, V. J. (2009). *A history of mathematics: An Introduction (3rd Edition)*. Pearson Education, Inc.

Krantz, S. G. (2003). *Calculus demystified*. McGraw-Hill Companies, Inc.

Libby, J. (2017). *Math for real life: Teaching practical uses for algebra, geometry and trigonometry*. McFarland & Company, Inc.

Mammana, C. & Villani, V. (1998). *Perspectives on the teaching of geometry for the 21st century: An ICMI study*. Kluwer Academic Publishers.

Meserve, B. E. (1983). *Fundamental concepts of geometry*. Dover Publications, Inc.

Mink, D. V. & Hall, E. J. (2010). *Strategies for teaching mathematics*. Shell Education Publishing, Inc.

Oldknow, A., Taylor, R., & Tetlow, L. (2010). *Teaching mathematics using ICT*. Continuum International Publishing Group.

Paulsen, K. (2006). *Algebra (part I): Applying learning strategies to beginning algebra*. The Iris Center.

Selby, P. H. (1975). *Geometry and trigonometry for calculus*. John Wiley & Sons, Inc.

Sinclair, N., Pimm, D. & Skelin, M. (2012). *Developing an essential understanding of geometry for teaching mathematics in grades 6-8*. National Council of Teachers of Mathematics.

Sinclair, N., Pimm, D., Skelin, M. & Zbiek, R. M. (2012). *Developing an essential understanding of geometry for teaching mathematics in grades 9-12*. National Council of Teachers of Mathematics.

Sultan, A. & Artzt, A. F. (2011) *The mathematics that every secondary school math teacher needs to know.* Routledge.

Sundstrom, T. (2016). *Mathematical reasoning: Writing and Proof*. Pearson Education, Inc.

UNESCO (1989). Teaching probability and statistics in general secondary education. UNESDOC Digital Library. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000097817

UNESCO (1989). Teaching probability and statistics in general secondary education. UNESDOC Digital Library. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000097817

Wallace, E. C. & West, S. E. (1998). *Roads to geometry*. Prentice Hall.

Wu, H. (2016). Teaching school mathematics: Pre-algebra. American Mathematical Society. https://doi.org/10.1090//mbk/098

Zebergen, R. Dole, S. & Wright, R. J. (2004). *Teaching mathematics in primary school*. Allen & Unwin Publishing.

Course Title: Teaching Health Education II

Course Code: H. Ed. 491	**Nature of Course:** Theorey + Practical
Level: PGDE	**Credit Hours:** 3 (2 Th +1 Pr)
Semester: Second	**Teaching Hours**: 64 (32 Th + 32 Pr)

1. Course Description

This core pedagogical course for prospective health education teachers is designed to provide a comprehensive understanding and essential skills for effective teaching of health education in schools. The course emphasizes several key areas of health education: the philosophy and theoretical perspectives of health education, professional preparation, classroom management, innovative teaching methods, instructional materials, and assessment procedures relevant to the field.

Throughout the course, students will engage with both theoretical concepts and practical skills in teaching health education. By integrating these components, the course ensures that graduates are well-equipped to manage classrooms effectively, engage students with health-related topics, and promote a healthy lifestyle within the school environment. By the end of the course, students will have developed the competencies necessary for effective health education instruction in schools.

2. General Objectives

The primary objective of this course is to prepare competent and skilled health educators for the school level. It aims to familiarize prospective teachers with the philosophy, theory, professional preparation, teaching methods, materials, and assessment procedures in health education.

- Develop a fundamental understanding of the philosophical, theoretical, and professional perspectives of health education.
- Build knowledge and skills in classroom management specific to teaching health education.
- Familiarize prospective teachers with student-centered, participatory, and innovative teaching methods in health education.
- Understand assessment procedures used in health education classrooms at the school level.
- Enable prospective teachers to create and utilize teaching materials in health education classrooms.
- Equip prospective teachers with the skills to design effective teaching session plans for health education.
- Develop basic skills in creating and using assessment tools and techniques in health
- education classrooms.

3. Specific Objectives and Contents

Part I: Theory Part **(32 Hours)**

Unit 1: Philosophical, Theoretical, and Professional Perspectives in Teaching Health Education (6 Hours)	
Specific Objectives	**Course Contents**
• Explain the need for philosophy in health education. • Introduce the concept of predominant philosophies of health education. • Compare various theoretical models used in teaching health education. • Describe the process of professional preparation of health education in Nepal. • Analyze professional competencies and ethics necessary for effective teaching in health education.	1.1 Introduction to philosophy in health education 1.2 Predominant philosophies of health education 1.3 Theoretical models used in teaching health education • Preventive/Biomedical model • Critical consciousness-raising model • Empowerment model • Socio-ecological/eco-health model 1.4 Professional preparation of health education teachers 1.5 Professional competencies and ethics of health education teachers
Activities	**Educational Implications**
• The teacher facilitator will organize a tutorial session on the philosophy of health education, encouraging prospective teachers to develop and share a critical understanding of the concept. • The teacher facilitator will provide learning materials on key philosophies in health education and arrange discussion sessions with prospective teachers. Afterward, they will be asked to write reflective pieces based on the tutorial sessions. • Prospective teachers will be divided into groups, each receiving reading materials on theoretical models of health education. Group members will review the materials, engage in group discussions, and share their insights through PowerPoint presentations. • A panel discussion will be arranged, allowing each panel to present their understanding of the professional competencies and ethics required of health education teachers. Panelists may include prospective teachers or the invited guests.	• Integrate health education philosophies into the teaching of health-related content. • Apply theoretical models of health education when teaching health-related topics. • Demonstrate professional competencies and ethics essential for effective health education instruction. • Utilize professional preparation skills in health education within the classroom.

• The teacher facilitator will supply resources on the professional preparation of health education teachers. Prospective teachers will then write about the process involved in becoming a qualified health education teacher.	

Unit 2: Classroom Management in Teaching Health Education (6 Hours)	
• Identify health conducive seating arrangement techniques in health education classrooms. • Describe effective strategies of creating child friendly learning environment in health education classrooms. • Identify classroom diversity and apply strategies for inclusive learning environment in health education classrooms. • Explore psychosocial counselling skills for stress, emotions, and conflict management in health education classrooms. • Evaluate the importance of utilizing Yoga pedagogy as a non-violent and effective strategy for stress management in health education classrooms. • Describe basic communication skills for effective teaching in health education.	2.1 Health conducive seating arrangement 2.2 Child-friendly learning environment in the classroom 2.3 Inclusive learning environment in the classroom • Learners with physical and mental disability • Linguistically and culturally diverse learners • Slow and fast cognitive power learners • Vulnerable learners with chronic disease, divorced family children, homeless children 2.4 Psychosocial counselling skills for stress, emotions, and conflict management 2.5 Yoga pedagogy for stress management 2.6 Basic communication skills for teaching health education • Using soft language • Using supportive language • Using nonverbal communication • Listening to students • Self-communication (Reflective practices)
Activities	**Educational Implications**
• Prospective teachers can design a layout and set of guidelines for a hypothetical classroom that fosters a child-friendly environment. They will present their plans in small groups, focusing on elements like classroom setup, language use, and interactive tools. • Provide case studies that depict various forms of diversity (cultural, linguistic, ability-based) within a classroom. Prospective teachers will work in groups to analyze the case study and suggest inclusive strategies, such as differentiated instruction, peer tutoring, or culturally	• Create a child-friendly learning environment in the health education classroom. • Integrate an inclusive learning environment in classroom teaching. • Apply psychosocial counseling skills for managing stress, emotions, and conflicts in health education classrooms. • Integrate yoga pedagogy for stress management in the health education classroom. • Apply basic communication skills when teaching health education content.

responsive materials. Each group will present their recommendations to the class. • Invite a school counselor to discuss basic psychosocial counseling techniques and share practical approaches for handling emotions and conflicts. Following the session, prospective teachers will write a reflective piece on how they can integrate these skills into their teaching. • Arrange a workshop where prospective teachers experience Yoga techniques and mindfulness practices. Following the session, they will discuss how these techniques can support student well-being and write a brief proposal on incorporating Yoga pedagogy into the classroom. • Have prospective teachers stand in a circle, holding hands. When the music starts, ask them to move around the circle, and when the music stops, each person will discuss one communication skill used in teaching health education. Continue this activity until all five skills have been discussed by the group.	

Unit 3: Teaching Methods in Health Education (15 Hours)	
• Review the course contents related to the human body system in school education. • Apply the process of using appropriate teaching methods for the human body system. • Review the course contents related to personal and environmental health in school education. • Apply the process of using appropriate teaching methods for personal and environmental health. • Review the course contents related to community health and consumer health in school education.	3.1 Teaching human body system • Course contents • Teaching methods (Demonstration/Model display, Gamification, Co-operative learning, Film/Video show) 3.2 Teaching personal and environmental health • Course contents • Teaching methods (Storytelling, Street drama, Small group discussion, Graffiti learning, Mini-project, and Role play) 3.3 Teaching community health and consumer health • Course contents • Teaching methods (Demonstration, Problem solving, Experiential learning, Field trip) 3.4 Teaching food and nutrition • Course contents

• Apply the process of using appropriate teaching methods for community health and consumer health. • Review the course contents related to food and nutrition in school education. • Apply the process of using appropriate teaching methods for food and nutrition. • Review the course contents related to communicable and non-communicable diseases in school education. • Apply the process of using appropriate teaching methods for noncommunicable diseases. • Review the course contents related to tobacco consumption, alcohol intake, and drug abuse in school education. • Apply the process of using appropriate teaching methods for tobacco consumption, alcohol intake, and drug abuse. • Review the course contents related to safety and first aid in school education. • Apply appropriate teaching methods for effectively teaching the contents of safety and first aid. • Review the course contents related to sexuality education in school education. • Apply the process of using appropriate teaching methods for sexuality education. • Review the course contents related to mental health in school education. • Apply the process of using appropriate teaching methods for mental health.	• Teaching methods (Storytelling, Role play, Demonstration and Exhibition, Jigsaw learning, Audio-visual learning, Gallery Walk, Garden-based learning) 3.5 Teaching communicable and non-communicable diseases • Course contents • Teaching methods (Story making and telling, Case story, Explanation, Games and Quizzes, Jigsaw learning, Gallery Walk, Dialogue with community health workers) 3.6 Teaching tobacco consumption, alcohol intake and drugs abuse • Course contents • Teaching methods (Demonstration, Story making and telling, Role Play and Dramatization, Case study) 3.7 Teaching safety and first aid • Course contents • Teaching methods (Simulation, Demonstration, Mapping risk zone, Field trip) 3.8 Teaching sexuality education • Course contents • Teaching methods (Peer teaching, story making and telling, Small group discussion, Body mapping, Participatory video making, Co-operative learning, and Jigsaw learning) 3.9 Teaching mental health • Course contents • Teaching methods (Goal setting, Peer learning, Think-group-share (TGS), Storytelling and Case story, Co-operative learning, and Small group discussion)
Activities	**Educational Implications**
• Prospective teachers will receive curricular resources, including basic and secondary school health education	• Use innovative, age-appropriate, and student-centered teaching methods when delivering health education content in the classroom.

curricula and textbooks. They will review each unit's course content individually and present their findings to the class. • The teacher facilitator will organize tutorial sessions on teaching methods used in delivering current health education course content. Prospective teachers will then design classroom activities for each method introduced.	

Unit 4: Assessment in Health Education (5 Hours)	
• Introduce assessment as learning, assessment for learning, and assessment of learning in teaching health education. • Describe the provision of internal and external assessment procedures in health education subject at school. • Acquaint familiar with practical and project activities in health education subject at school. • Describe the use of grid specification table used in health education subjects at school. • Describe the role of rubrics for authentic assessment in Health Education. • Discuss the use of an observational checklist in health education assessment. • Explain the importance of reflective writing in health education assessment.	4.1 Introduction to assessment in teaching health education • Assessment as learning, • Assessment for learning • Assessment of learning 4.2 Internal and external assessment system in health education • Basic school (Grades 1-3 and Grades 4-8) • Secondary school (Grades 9-12) 4.3 Practical and project-based activities in health education 4.4 Grid specification table in health education 4.5 Rubrics for authentic assessment in health education 4.6 Observational checklist in health education assessment 4.7 Reflective writing in health education assessment
Activities	**Educational Implications**
• The teacher facilitator will organize a tutorial session on assessment in health education, encouraging prospective teachers to develop and share a critical understanding of the concept. • The teacher facilitator will provide learning resources on both internal and external assessment systems in health	• Apply the existing assessment system in the health education classroom. • Use both internal and external assessment systems in the health education classroom. • Incorporate practical and project-based activities into health education teaching.

education. Prospective teachers will explore the provisions of these assessment systems and present their findings to the class. • Prospective teachers will be divided into groups, with each group receiving reading materials on practical and project-based activities, grid specification tables, rubrics for authentic assessment, observational checklists, and reflective writing in health education assessment. Group members will review the materials, engage in group discussions, and present their insights to the class.	• Use a grid specification table when creating test items. • Use rubrics for authentic assessment in the health education classroom. • Use an observational checklist to assess student progress in the health education classroom. • Apply reflective writing as part of health education classroom activities.

Part II: Practical Part **(32 Hours)**

Units	Practical Activities
Unit 5: Construction and Use of Materials in Teaching Health Education (9 Hours)	5.1 Construct and use charts such as wall charts and flipped charts in teaching health education. 5.2 Construct and use the posters in teaching health education. 5.3 Construct and use flashcards in teaching health education. 5.4 Construct/collect and use models in teaching health education. 5.5 Construct and use flannel boards in teaching health education. 5.6 Construct and use PowerPoints in teaching health education. 5.7 Construct and use the animated YouTube/Podcast videos in teaching health education. 5.8 Integrate web browsers, social media, research sites, and AI tools into health education lessons. 5.9 Construct and use low-cost and no-cost materials for teaching health education. 5.10 Apply Edger Dale's Cone of Experiences in teaching health education.
Unit 6: Developing Classroom Activities in Teaching Health Education (15 Hours)	6.1 Design classroom activities for teaching topics related to the human body systems using methods such as demonstration/model displays, gamification, cooperative learning, and film/video presentations.

	6.2 Create classroom activities focused on personal and environmental health topics, incorporating storytelling, street drama, small group discussions, graffiti learning, mini-projects, and role play methods. 6.3 Develop classroom activities on community health and consumer health topics using demonstration, problem-solving, experiential learning, and field trips methods. 6.4 Design classroom activities focused on food and nutrition topics, utilizing storytelling, role play, demonstrations, exhibitions, jigsaw learning, audio-visual aids, gallery walks, and garden-based learning methods. 6.5 Create classroom activities on communicable and non-communicable diseases topics using story making and storytelling, case story, games and quizzes, jigsaw learning, gallery walks, and dialogues with community health workers. 6.6 Develop classroom activities on topics related to tobacco use, alcohol consumption, and drug abuse, using demonstration, story making and telling, role play, dramatization, and case studies. 6.7 Design classroom activities focused on safety and first aid topics utilizing simulation, demonstration, mapping risk zone, and field trips. 6.8 Create classroom activities for teaching sexuality education topics, employing methods such as peer learning, story making and telling, small group discussions, body mapping, participatory video making, cooperative learning, and Jigsaw learning. 6.9 Prepare classroom activities for teaching mental health topics using goal setting, peer learning, think-group-share (TGS), storytelling and case story, small group discussions, and cooperative learning.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Unit 7: Construction of Assessment Tools in Health Education (8 Hours)	7.1 Develop worksheet models for use in health education assessments. 7.2 Prepare samples of practical and project activities aligned with existing health education curricula. 7.3 Create showcases of grid specification tables following current school evaluation guidelines. 7.4 Construct various types of assessment items, including essay questions, short answer questions, very short answer questions, and multiple-choice questions. 7.5 Develop models of rubrics for authentic assessment purposes. 7.6 Create models for checklists and rating scales. 7.7 Develop observation forms for assessment. 7.8 Prepare samples of reflective writing or journal writing to be used as assessment tools. 7.9 Develop and implement Google Forms or Microsoft Forms as online assessment tools. 7.10 Create and utilize online quizzes for assessment purposes.

4. Evaluation Criteria

4.1 Internal Evaluation **Theory (25)**

Internal theory evaluation will be conducted by the course teacher based on the following activities.

Activities	**Full Marks**
Attendance and Participation	5 Marks
First Assignment/ Assessment	5 Marks
Second Assignment (Midterm Exam) Assessment	10 Marks
Third Assignment/ Assessment	5 Marks
Total	**25 Marks**

4.2 Internal Evaluation **Practical (15)**

Internal practical evaluation will be conducted in the campus/Department by the evaluation committee in the chair of the head of the department, subject teacher, and expert nominated by the campus/department chief.

Activities	**Full Marks**
Participation and Presentation	2.5 Marks
Construction of Teaching Materials	5 Marks
Development of Classroom Teaching Activities	5 Marks
Construction of Assessment Tools	2.5 Marks

Total	15 Marks

4.3 External Evaluation **40 Marks**

Examination Division, Office of the Dean, Faculty of Education will conduct the final examination at the end of the semester. The types and number of questions to be included in the final paper are as follows.

Questions	Marks
Objective Type Question (Multiple Choice Questions 10 × 1 Marks)	10 Marks
Short Answer Question (6 Questions with 2 Or Questions 6 × 5 Marks)	30 Marks
Total	**40 Marks**

4.4 External Evaluation **20 Marks**

External practical evaluation will be conducted in the campus/department by the evaluation committee in the chair of the head of the department, subject teacher, and expert nominated by the campus/department chief.

Activities	Full Marks
Record of Construction of Teaching Materials	5 Marks
Record of Development of Classroom Teaching Activities	5 Marks
Record of Development of Assessment Tools	5 Marks
Viva-voce	5 Marks
Total	**20 Marks**

5. Recommended Books and Reading Materials

Anspaugh, D. J & Ezell, G. (2013). *Teaching today's health (10 ed)*. Pearson Education.

Baidha, P.C., Budhathoki, C.B., Wagle, B.P., & Bhandari, K. N (2070 BS). *Foundation and principles of health education (Nepali)*. Kathmandu: Pinacal Publication.

Benes, S. & Alperin, H. (2016). *Lesson planning for skilled-based health education*. America, Human Kinetics.

Benes, S. & Alperin, H. (2022). The essentials of teaching health education: Curriculum, instruction, and assessment (2nd ed). Champaign: Human Kinetics.

Burden, P.R. (2020). Classroom management: Creating a successful K-12 learning community (7th ed). New Jersey: John Wile & Sons, Inc.

Centeio, E. E., Whalen, L., Thomas, E., Kulik, N., & McClaughry, N. (2017). Using yoga to reduce stress and bullying behaviors among urban youth. Health, 9, 409-424. https://doi.org/10.4236/health.2017.93029

Cottrell, R. R., Girvan, J.T., & McKenzie, J.F. (2006). *Principles and foundation of health promotion and education (3rd ed)*. NY: Benjamin Cummings.

नेपाल सरकार, (२०७७), आधारभूत शिक्षा (कक्षा (६-८) पाठ्यक्रम, २०७७, भक्तपुरः पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०७८), आधारभूत शिक्षा पाठ्यक्रम, २०७८ (आधारभूत भक्तपुर : पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०७८), आधारभूत शिक्षा पाठ्यक्रम, २०७८ (कक्षा ४-५), भक्तपुरः पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०७६), माध्यामिक शिक्षा पाठ्यक्रम, २०७६ (कक्षा ११-१२: भाग-२ ऐच्छिक), भक्तपुरः पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०७६), माध्यामिक शिक्षा पाठ्यक्रम, २०७६ (कक्षा ९-१०, ऐच्छिक बिषयहरु), भक्तपुरः पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०८०), बिधार्थी सिकाइका लागि आन्तरिक मल्याङ्कन मापदण्ड २०८०, आधारभूत तह (कक्षा ४-८): पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०८०), बिधार्थी सिकाइका लागि आन्तरिक मल्याङ्कन मापदण्ड २०८० (कक्षा ९-१२): पाठ्यक्रम विकास केन्द्र, शिक्षा विज्ञान तथा प्रबिधि मन्त्रालय, नेपाल सरकार ।

नेपाल सरकार, (२०६२), बालमैत्री विद्यालय शिक्षण प्रशिक्षण पुस्तिका, शिक्षा बिभाग, सेभ द चिल्ड्रेन, एलाइन्स ।

Holman, D., Johnson, S., & O'Connor, E. (2018). Stress management interventions: Improving subjective psychological well-being in the workplace. In E. Diener, S. Oishi, & L. Tay (Eds.), Handbook of well-being. Salt Lake City, UT: DEF Publishers. DOI: nobascholar.com

Pahadi, T.N. (2078 BS). *Foundation and principles of health education (Nepali)*. Kathmandu: Quest Publication.

Ramachandran, L. & Dharma Ingham, T. (2013). Health education: A new approach. New Delhi: Vikash Publishing House Pvt. Ltd.

Rubinson, L. & Wesley, F. A. (1984). *Health education: Foundations for the future.* Santa Clara: Times Mirro Mosby College Publishing.

Sherchan, L. & Upreti, Y.R. (2080 BS). *Teaching health education (Nepali)*. Kathmandu: Quest Publication.

Telljohann, S.K., Symons, C. W., Pateman, B. and & Seabert, D. (2016). Health education: elementary and middle school applications (Eight Edition). New York: McGrahill Education.

Whalen, S., Splendorio, D., & Chiariello, S. (2007). Tools for teaching health: Lessons and activities to promote health literacy and reduce health risks. San Francisco: Jossey-Bass.

Whalen, S., Splendorio, D., & Chiariello, S. (2007). Tools for teaching health: Lessons and activities to promote health literacy and reduce health risks. San Francisco: Jossey-Bass.

Course Code: Teaching Economics-II

Course Code: Eco. Ed. 491
Level: PGDE
Semester: Second

Nature of Course: Theory + Practical
Credit Hours: 3 (2 Th+ 1Pr)
Teaching Hours: 64 (32 Th +32 Pr)

1. Course Description

This course is designed for Teaching Economics II of the Post Graduate Diploma in Education (PGDE). It aims to familiarize students with the teaching methods specific to economics. It is a comprehensive course designed to equip prospective teachers with the knowledge and skills necessary to excel in teaching economics effectively. In this course, we will study various aspects of pedagogy specifically tailored to the field of economics, ranging from fundamental teaching methods to cutting-edge digital pedagogy techniques. Throughout this course, prospective teachers will not only gain practical insights and strategies for teaching economics. Still, they will also be encouraged to reflect on their teaching practices and continuously strive for excellence in fostering student learning and understanding of economics.

2. General Objectives

The general objectives of this course are as follows:

- To equip prospective teachers with a diverse range of effective teaching methods and techniques suitable for teaching economics.
- To introduce prospective teachers to various teaching materials/aids and resources that can enhance the teaching and learning experience in economics.
- To enable prospective teachers to implement various evaluation techniques to assess student understanding and proficiency in economics.
- To provide prospective teachers with opportunities for focused practice and improvement of their teaching skills of economics contents from the curriculum of grades 9 and 10.
- To explore integrating digital tools and strategies into economics education to enhance teaching effectiveness and student engagement.

3. Specific Objectives and Contents

To achieve the expected outcomes of the course, the contents are organized as follows:

Part I: Theory (32 Hours)

Unit 1: Teaching Methods and Materials in Economics (10 Hours)	
Specific Objectives	**Contents**
• Apply the TPACK framework to enhance their understanding of the	1.1 The knowledge of teaching 1.1.1 Concept

knowledge of teaching combining TK, PK, and CK knowledge types. • Introduce the teaching method used in economics • Prepare lecture notes for teaching economics • Participate in discussions to make effective teaching using traditional methods • Demonstrate the model class instruction using modern methods of teaching such as case study, problem-based learning, flipped model, and project method • Review the merits and demerits of traditional and modern teaching methods • Use various teaching methods among the peers regarding the nature of contents in economics teaching	1.1.2 Knowledge types- Technological Knowledge (TK), Pedagogical knowledge (PK), and Content Knowledge (CK) 1.2 Introduction to Teaching Method in Economics **1.2.1 Traditional/Conventional Methods** a. Lecture method b. Discussion method c. Inquiry method e. Team teaching **1.2.2 Modern Methods** a. Case study b. Problem-Based learning method c. Flipped model teaching d. Project method 1.3 Interactive classroom activities for teaching economics in schools 1.4 Teaching Materials/Aids in Economics Teaching 1.5 Types of instructional aids/materials 1.5.1 Traditional instructional materials/aids 1.5.2 Modern instructional materials/aids 1.6 Construction and use of instructional materials/ aids (Maps, graphs, charts, figures, pictures, flannelgraph, posture, audio-visual aids) 1.7 Use of local instructional material in teaching economics 1.8 Problems in the use of instructional materials in teaching economics
Activities	**Pedagogical Implications**
• Conduct a simulated lecture session where each student presents a short economics lesson. • Host an online discussion forum where students debate a current economic issue. • Assign an inquiry-based task where students explore an economic phenomenon and present their findings. • Analyse a case study related to an economic concept or real-world event in small groups.	• Prospective economics teachers should skilfully combine traditional and modern teaching methods to create dynamic and effective learning experiences that cater to various learning preferences. • Incorporating Problem-Based Learning (PBL) encourages students to engage in active learning, fostering critical thinking and problem-solving skills essential for understanding complex economic issues. • The flipped classroom model empowers students to take charge of their learning, allowing class time for in-depth discussions and collaborative activities that reinforce economic concepts.

• Implement a flipped classroom model followed by a role-playing exercise.	• Team teaching enables collaborative learning environments where students benefit from multiple perspectives and expertise, enhancing their understanding of economic concepts through diverse viewpoints. • Inquiry-based learning cultivates critical thinking by encouraging students to question, explore, and analyse economic concepts, leading to a deeper and more comprehensive understanding.
Unit 2: Teaching Economics Contents (12 Hours)	
Specific Objectives	**Contents**
• Critically analyse the organization of subject matters in the economics curriculum (Grades 9-10). • List the different pedagogical approaches for teaching Economics content (Grades 9-10). • Select and use different methods and pedagogical strategies for teaching different economics contents from the curriculum of Grades 9–10.	2.1 Concepts of organization of subject matters in economics 2.2 Pedagogical approaches for teaching economics 2.3 Teaching Economics Contents 2.3.1. Introduction to Economics 2.3.2 Utility analysis 2.3.3. Demand, supply, and equilibrium 2.3.4. Factors of production 2.3.5. National income 2.3.6. Economic factors of Nepal 2.3.7. Agriculture, Cooperative and Industry in Nepal 2.3.8. Theory of production 2.3.9. Household economics 2.3.10. Contemporary economic issues 2.3.11 Cost and revenue curves 2.3.12. Product pricing 2.3.13. Factor pricing 2.3.14. Money, banking, and non-banking financial institution 2.3.15. Public finance 2.3.16. Development economics 2.3.17. International trade 2.3.18. Economic/Development Plan in Nepal 2.3.19. Statistics in economics 2.3.20. Statistical tools
Activities	**Pedagogical Implications**
• Present case studies on contemporary economic issues, such as inflation or unemployment in Nepal, and	• Prospective teachers should emphasize the interconnectedness of topics like demand-supply analysis, national income, and economic

encourage students to analyze the causes, impacts, and possible solutions. • Organize debates on issues such as "Public vs. Private Sector in Development" or "Advantages and Disadvantages of International Trade." This encourages students to explore different viewpoints and strengthens their analytical skills. • Teach students how to interpret and create graphs related to demand, supply, cost, and revenue curves. This hands-on experience builds skills in visualizing economic relationships. • Assign students to research and present on Nepal's economic development plans, such as the 16th Plan. This allows them to connect curriculum topics with real-world economic planning and policy-making.	development to give students a holistic understanding of how various economic principles operate in the real world. • Different pedagogical methods, such as discussion, problem-solving, and project-based learning, can be utilized to engage students effectively. Tailoring teaching strategies to the specific topic (e.g., cost and revenue curves vs. household economy) helps make abstract concepts more relatable. • Teaching should incorporate examples relevant to Nepal's economy, such as the role of agriculture and cooperatives, to provide context and relevance, helping students connect theoretical concepts to their surroundings. Prospective teachers should focus on developing these analytical skills, which are essential for understanding economic trends and policies. • The curriculum encourages prospective teachers to critically analyze economic issues and apply their knowledge in practical settings. Teachers should encourage questioning, exploration, and debates on contemporary economic issues to foster a deeper understanding.
Unit 3: Evaluation Techniques in Economics (5 Hours)	
Specific Objectives	**Contents**
• Introduce evaluation • Develop skills in the construction of teacher-made tests and standardized test • Identify the criteria for standardization of items in economics teaching • Achieve skill of evaluation of answer book of economics • Develop the skill of construction of specification grid in economics • Construct the various test items in the secondary school curriculum (Grades 9 and 10) in Nepal	3.1 Concept of evaluation 3.2 Evaluation tools 3.2.1 Teacher-made tests 3.2.3 Standardized test 3.3 Criteria of standardization of items in Economics 3.4 Criteria for Evaluation Answer Sheet in Economics 3.5 Construction and use of specification grid in economics 3.6 Construction of various test items from secondary-level economics curriculum (considering Bloom's Taxonomy of Educational Objectives)

Activities	Pedagogical Implications
1. Students create a set of test questions for a specific economics topic using Bloom's Taxonomy levels. **2.** Analyse sample standardized test items in economics for structure and effectiveness. **3.** Group discussion on how these tests align with curriculum standards. **4.** Create a specification grid for a chosen economics unit, mapping test items to learning objectives and present in an online session for peer feedback and refinement. **5.** Students exchange written assignments and evaluate each other using a shared rubric provide feedback and reflect on the evaluation process in a class discussion. **6.** Use platforms like Google Forms to design and share online quizzes for economics topics.	**1.** Prospective teachers must grasp the concept of evaluation, which encompasses more than just grading and includes assessing student learning, understanding, and skill development. **2.** Familiarity with both teacher-made and standardized tests allows teachers to assess a range of competencies, ensuring a well-rounded evaluation of student performance in economics. **3.** Understanding standardization criteria helps in crafting test items that are fair, valid, and reliable, ensuring consistent assessment across different student groups. **4.** Using Bloom's Taxonomy for constructing test items ensures that evaluations address different cognitive levels, from basic recall to higher-order thinking skills **5.** Specification grids ensure alignment between curriculum objectives, teaching activities, and assessments, enhancing the validity of evaluation tools
Unit 4: Digital Pedagogy in Economics (5 Hours)	
Specific Objectives	**Contents**
• Participate in the discussion on the introduction of digital pedagogy • Use of various digital tools and resources for teaching economics • Familiarize with digital literacy in economics • Develop the skills and efficiency of online teaching and digital assessment • Identify the ethical and legal issues in digital pedagogy • Identify and use emerging trends in digital pedagogy in economics teaching • Identify the gap between pedagogical theory and practices	4.1 Introduction to Digital Pedagogy 4.2 Digital Tools and Resources for Teaching Economics 4.3 Digital Literacy in Economics 4.4 Online Teaching Methods and Strategies 4.5 Digital Assessment and Feedback 4.6 Ethical and Legal Issues in Digital Pedagogy 4.7 Emerging Trends of Digital Pedagogy in Economics Teaching 4.8 Pedagogical Theory and Practice
Activities	**Pedagogical Implications**
• Prospective teachers explore digital tools creating mini-lessons to teach specific economics concepts.	• Digital tools can enhance active learning by engaging students in interactive and collaborative activities, making economic concepts more

• Conduct a session where students identify credible online resources for teaching economics and present their findings. • Each student conducts a short, live online economics lesson using digital platforms such as Microsoft Teams. • Groups analyse real-world scenarios involving ethical and legal issues in digital pedagogy, discussing how to address these challenges in economics teaching. • Create digital quizzes or assignments using tools like Google Forms, focusing on economics topics, and analyze their effectiveness in providing feedback	accessible and engaging. • Developing digital literacy is crucial for both teachers and students to effectively navigate and utilize digital resources, ensuring competency in using technology for economic analysis and problem-solving. • Online teaching methods provide flexibility and accessibility, allowing students to learn at their own pace and access resources anytime, anywhere, supporting diverse learning needs and preferences. • Digital assessment tools offer innovative ways to assess student learning and provide timely, personalized feedback, enhancing the overall effectiveness of the evaluation process. • Understanding and addressing ethical and legal issues are essential for ensuring the responsible use of digital resources and maintaining academic integrity in economics teaching.

Part II Practical (32 Hours)

Units	Practical Works
Unit 1: Teaching Methods and Materials/Aids in Economics (9 Hours)	**1.** Prepare a 10–15-minute lecture on an economic topic assigned by the instructor. 2. Write a reflection paper on the strengths and weaknesses of the lecture method in teaching economics, drawing from their experience preparing and delivering their lectures. 3. Students engage in a structured group discussion on a contemporary economic issue. 4. The group submits a report summarizing the discussion, key points made, and any conclusions or solutions reached. 5. Submission of a comprehensive report documenting their problem-solving process, including problem identification, research conducted, solutions developed, and implementation plan.

	6. Prepare a project report and present their findings to an external panel.
Unit 2: Teaching Economics Contents (11 Hours)	1. Conduct a small survey within the community to gather data on income, expenditure, or savings. Analyzing this data will provide practical insights into economic factors affecting households. 2. Assign students to create a monthly budget for a hypothetical household. This activity will help them understand financial management and the importance of budgeting in the economy. 3. Arrange visits to nearby industries or cooperatives so students can observe economic activities firsthand. This experience will provide them with a practical understanding of production, supply chains, and economic contributions. 4. Assign students to analyze recent economic data from sources like Nepal's Central Bureau of Statistics. They can work on calculating statistical measures or constructing graphs to better understand trends in GDP, inflation, or trade. 5. Assign students a group presentation, students can research and create presentations on current economic issues in Nepal, such as poverty, unemployment, or banking reforms. This activity promotes collaborative learning and enhances their ability to discuss complex economic topics. 6. Designing a poster on an economic concept (like supply and demand) using traditional instructional aids such as charts, graphs, and maps. 7. Creating a PowerPoint presentation or a video explaining a topic in economics (like inflation or unemployment) using modern instructional aids such as slides, infographics, and video clips. 8. Identifying and gathering local materials (like newspapers, local market data, or interviews with local business owners) to create an instructional aid that explains a local economic issue. 9. Surveying classmates to evaluate the effectiveness of various instructional aids (traditional vs. modern) in understanding a particular economic concept.
Unit 3: Evaluation Techniques in Economics (7 Hours)	1. Creating a teacher-made test covering a specific topic from the secondary-level economics curriculum. The test should include multiple-choice questions, short answer questions, and essay questions. 2. Choosing a standardized economics test (or sample questions) and analyzing its structure, types of questions, and

	the criteria used for standardization. Present your findings in a report or presentation. 3. Developing a specification grid for an economics test, aligning it with Bloom's Taxonomy. Ensure that the grid covers various cognitive levels such as knowledge, comprehension, application, analysis, synthesis, and evaluation. 4. Reviewing and evaluating a set of sample answer books for an economics test. Use specific criteria to grade the answers and provide constructive feedback. Discuss your evaluation process in a group discussion or a written report. 5. Developing a set of test items (multiple-choice, short answer, and essay questions) from the secondary-level economics curriculum, ensuring they cover different levels of Bloom's Taxonomy. Share your questions in an online forum and provide feedback on peers' questions.
Unit 4: Digital Pedagogy in Economics (5 Hours)	**1.** Develop a comprehensive digital lesson plan for a specific topic in economics. Use digital tools and resources such as videos, interactive simulations, and online articles. Present your lesson plan in a digital format. **2.** Create an online quiz using a platform like Google Forms, Kahoot!, or Quizlet. Include a variety of question types (multiple-choice, true/false, short answer) that assess different aspects of the topic. Share the quiz with your classmates for feedback. **3.** Analyze Digital Literacy in Economics: Task: Write a report on the importance of digital literacy in economics education. Include a discussion on how digital literacy impacts both teaching and learning economics. Provide examples of digital tools that enhance digital literacy. **4.** Conduct a Webinar on Online Teaching Strategies: Task: Organize and conduct a webinar for your classmates on effective online teaching methods and strategies for economics. Include topics such as student engagement, interactive tools, and managing online discussions. Record the webinar and share it with the class. **5.** Review and evaluate different digital assessment tools (e.g., Google Classroom, Microsoft Teams, etc.). Compare their features, ease of use, and effectiveness in providing feedback. Present your findings in a digital presentation or a written report.

Note: *The figures in the parenthesis indicate the approximate teaching hours for the respective units.*

4. Modes of Instruction

Teachers can use both general and specific instructional strategies to deliver this curriculum in the classroom. They are as follows:

- ❖ Lecture
- ❖ Group discussion
- ❖ Guest lecture
- ❖ Question-answers
- ❖ Demonstration and Discussion
- ❖ Home assignment and self-study
- ❖ Classroom presentation using Group work/Project work
- ❖ Reflective inquiry
- ❖ Problem-Solving

5. Evaluation Criteria

Students' achievements will be evaluated through internal and end/semester examinations. The 65-35 marks are allocated for the theoretical and practical sections, out of which 40 percent marks are allocated for the internal examination and 60 percent marks for the final/semester examination. Students have to pass both these sections separately.

In the internal evaluation, 25 and 15 marks will be evaluated separately for theory and practical, respectively, by the course teacher based on the following activities:

Activities	**Marks Allotted (Theory)**
Attendance	3.5
Classroom Activities	3.5
First Assignment	6
Second Assignment	6
Third Assignment	6
Total	**25**

Since 15 marks are allotted to internal evaluation for practicals, the course teacher will evaluate based on the following heads:

Activities	**Marks Allotted (Practical)**
Attendance	5
Involvement in Practical Activities	5
Performance in Practical Activities	5
Total	**15**

Student attendance (5), involvement in practical activities (5), and performance in the practical work (5). Internal evaluation marks of practical aspects will be submitted along with the marks of the external practical examination.

5.1 External Evaluation (Final Examination- Theory)

Office of the Dean, Faculty of Education, will conduct the final examination at the end of the semester. Sixty percent of the marks have been allotted to the final examination. However, this course comprises both theoretical and practical. Thus, the theoretical aspect has allocated 40 percent marks for the final examination. Both modes of examination need to be passed independently, but the percentage will be counted together. The types and number of questions to be included in the final examination are as follows:

Types of question	Total Questions to be asked	Number of Questions to be answered and Marks Allocated	Total Marks
Group A: Multiple Choice	10 Questions	10×1 Marks	10
Group B: Short Answer	6 with 2 Or Questions	6×5 Marks	30
Total			**40**

5.2 External Evaluation (Practical)

The evaluation of the practical section will be 35 percent marks (15 percent for internal and 20 percent for external examination). The students will survey the pedagogical issues in Economics at the assigned institution and prepare the report for the teacher. The department will manage an external examiner to evaluate reports and conduct Viva Voce. The subject teacher will be the internal examiner.

Activities	Marks Allotted (Practical External)
Records of preparation of teaching materials, construction and analysis of tests, and records of digital lesson plan and online teaching activities	10
Review Report/Seminar Paper Presentation	5
Viva-voce	5
Total	**20**

Note:

- *Since 15 marks are allotted to internal evaluation, the course teacher will evaluate based on the student's attendance (5), involvement in practical activities (5), and performance in the practical work (5). Internal evaluation marks of practical aspects will be submitted along with the marks of the external practical examination.*
- *Students should have compulsorily submitted the assigned project work/task to the department before the final practical examination*
- *To complete the course, students must secure a minimum pass mark in each component (5.1, 5.2, and 5.3).*

Students should have compulsorily submitted a curriculum review report and field-based pedagogical issue report to the department before the final practical examination. Reports should be submitted individually.

6. Recommended Books and Reading Materials

ज्ञवाली, सञ्जय र पनेरु, सुरेन्द्र (२०७४), *अर्थशास्त्र कक्षा १०,* पाठ्यक्रम विकास केन्द्र ।

Absari, N., Priyanto, P., & Muslikhin, M. (2020). The effectiveness of Technology, Pedagogy and Content Knowledge (TPACK) in learning. *Jurnal Pendidikan Teknologi Dan Kejuruan*, *26*(1), 43-51. https://journal.uny.ac.id/index.php/jptk/article/view/24012/13487 (Unit 1)

Adu, E. O., & Zondo, S. S. (2024). Enhancing teachers' digital skills in teaching of economics in South

African secondary schools. *International Journal of Educational Research Open*, *6*, 19. https://doi.org/10.1016/j.ijedro.2023.100310

Becker, William, E. (2000). "Teaching Economics in the 21st Century." *Journal of Economic Perspectives*, *14* (1) 109–119. https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.14.1.109

Beetham, H., & Sharpe, R. (2019). Digital Learning Activities: Linked to Bloom's Taxonomy of Educational Objectives. In *Rethinking pedagogy for a digital age* (pp. 255-263). Routledge. https://shorturl.at/eZqJU

Bhatt, B. D. (2007). *Modern methods of teaching: Concept and techniques*. Kanishka Publishers.

आचार्य, खुबिराम र ज्ञवाली, सञ्जय (२०७४), *अर्थशास्त्र कक्षा ९*, पाठ्यक्रम विकास केन्द्र ।

Chye, S. Y. L., & Chua, B. L. (Eds.). (2023). *Pedagogy and psychology in digital education*. Springer. https://doi.org/10.1007/978-981-99-2107-2

Colander, D. C., & McGoldrick, K. (Eds.). (2010). *Educating economists: The Teagle discussion on re-evaluating the undergraduate economics major*. Edward Elgar Publishing.

Helen; Sharpe Beetham, Beetham, H., & Sharpe, R. (2007). *Rethinking pedagogy for a digital age: Designing and delivering e-learning*. Routledge. https://shorturl.at/TUY2R

Hoyt, G. M., & McGoldrick, K. (Eds.). (2012). *International handbook on teaching and learning economics*. Edward Elgar Publishing. https://shorturl.at/f9x9K

Istiqomah, R., & Kristiani, L. N. (2022). Analysis of Technological, Pedagogical and Content Knowledge (Tpack) of Economics Students as Economics Candidate Teachers. *Journal of Positive School Psychology*, 8833-8841. https://mail.journalppw.com/index.php/jpsp/article/view/9574/6241

पौडेल, मिनराज (२०७७), *अर्थशास्त्र शिक्षण विधि* । एम. के. पब्लिसर एण्ड डिष्ट्रिब्युटर ।

पाठ्यक्रम विकास केन्द्र (२०७६), *माध्यमिक शिक्षा पाठ्यक्रम कक्षा ९ र १० (ऐच्छिक विषयहरू)*, पाठ्यक्रम विकास केन्द्र ।

Ned, A. E., Udo, U. B., & Nyemenim, J. O. (2023). Impact of instructional materials on teaching of economics in secondary schools in Rivers State. *NAEAP Journal of Studies in Educational Administration and Management, 1*(1), 320-336. https://shorturl.at/j5JCx

Ordu, U. B. A. (2021). The role of teaching and learning aids/methods in a changing world. *Bulgarian Comparative Education Society*, 2010-216. https://files.eric.ed.gov/fulltext/ED613989.pdf

Pokhrel, R. K. (2078). *Methods of Teaching Economics and Teaching Practice*. Dr. Rajendra Kumar Pokhrel.

Sharma, A. (2005). *Teaching of economics*. Surjeet Publication (Unit 3).

Sharma, A. (2005). *Teaching of economics*. Surjeet Publication.

Siddiqui, M. H. (1993). *Teaching of economics*. Ashish Publishing House (Unit 2, 4).

कुसियैत, बिनयकुमार (२०६७), *अर्थशास्त्र शिक्षण विधि : शिद्धान्त तथा प्र/ योग* । रत्न पुस्तक भण्डार ।

Yew, E. H., & Goh, K. (2016). Problem-based learning: An overview of its process and impact on learning. *Health Professions Education*, *2*(2), 75-79. https://doi.org/10.1016/j.hpe.2016.01.004

Course Title: Teaching Social Studies -II

Course Code: Sost. Ed. 491
Level: PGDE
Semester: Second

Nature of Course: Theory + Practical
Credit Hours: 3 (2 Th + 1 Pr)
Teaching Hours: 64 (32 Th +32 Pr)

---

1. Course Description

The course is designed to develop professional social studies teachers with sound pedagogical knowledge, a better understanding of classroom practices, and competence in various skills required for teaching, learning, and evaluation in social studies. This course is designed to acquaint prospective teachers with the knowledge and skills for teaching social studies, specifically: we and our society; our human values; citizen awareness, duties, and rights; social problems and solutions; our past; our economic activities; our earth; population and its management; international relations; current affairs and information.

This course also deals with the methodological understanding, aims, values, and objectives of teaching social studies, integrating technological pedagogical content knowledge (TPACK), and approaching instructional planning and evaluation. It enhances the ability to create reports and presentations, as well as the ability to use innovative lesson planning techniques and improvised materials, evaluate social studies themes, and do so at the basic level (Grades 4–8).

2. General Objectives

The general objective of this course is to produce social studies teacher educators for the basic level of schools. The prospective teachers will be able to:

- become familiar with the knowledge of teaching and pedagogical skills in social studies;
- acquaint the prospective teachers on teaching global history and civic education at the school level;
- acquaint the prospective teachers on teaching economics and geography at the school level;
- enable prospective teachers to design teaching cross-cutting and controversial issues in social studies classrooms;
- acquaint prospective teachers' knowledge and understanding the importance of evaluation in teaching social studies

3. Specific Objectives and Contents

To achieve the expected outcomes of the course, the contents are organized as follows:

Specific Objectives	Contents
Unit 1: The knowledge of Teaching and Teaching Methods (10 Hours: 8 Th + 2 Pr)	
• Define the fundamental concepts of teaching and describe the nature of teaching as an interactive process that promotes student learning. • Identify the key responsibilities and strategies a teacher employs in facilitating effective learning, focusing on student engagement and knowledge development. • Explain the differences between inductive and deductive teaching methods, and describe how each method can be effectively used to enhance student learning in various subjects. • Describe the characteristics and applications of teacher-centered methods, such as lecture, lecture-cum-demonstration, and historical methods, and analyze their effectiveness in facilitating learning. • Explain the principles behind learner-centered teaching methods, such as Project-based learning, Heuristic, experimental, activity-based, Problem-solving, Problem-based learning, and cooperative learning, and how they promote active student engagement.	1.4 Concepts and nature of teaching 1.5 The role of a teacher in facilitating learning 1.6 Teaching methods and strategies 1.6.1 Inductive and deductive methods 1.6.2 Teacher – Centered Methods - Lecture, Lecture Cum Demonstration, Historical 1.6.3 Learner – Centered Methods- Project, Heuristic, Experimental, Activity, Problem Solving and problem-based learning, Cooperative learning, 1.6.4 Field-study and survey method 1.6.5 Simulation, role-play and dramatization 1.6.6 Storytelling and narration strategy 1.7 Linking pedagogy with content knowledge 1.7.1 Concept and importance of CK, PK and TK in teaching 1.7.2 Pedagogical knowledge and its significance in teaching social studies. 1.7.3 Integrating TPACK into social studies teaching

• Describe the field-study and survey methods in teaching, and explain how these approaches can be applied to gather real-world data and enhance students' learning experiences. • Explain the value of simulation, role-play, and dramatization as teaching methods, and how they can be used to foster deeper understanding and empathy in learners. • Describe how storytelling and narration can be used as effective teaching strategies and explain their role in conveying complex concepts in an engaging and memorable way. • Critically evaluate the interrelationship between Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK), and propose strategies for effectively integrating these elements to enhance teaching and learning in social studies. • Analyze the role of pedagogical knowledge in shaping effective teaching strategies for social studies, and propose innovative approaches that integrate different teaching methods to address diverse learning needs. • Develop a comprehensive lesson plan for social studies that integrates Technological Pedagogical Content Knowledge (TPACK), demonstrating how technology can enhance	1.8 **Practical Work:** Prepare a detailed report on a given topic for classroom presentation

content delivery, pedagogical strategies, and student engagement in the classroom. • **Practical Work:** Prepare a detailed report on the integration of Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK) in the teaching of social studies at the school level, highlighting practical examples from the curriculum and suggesting ways to enhance teaching effectiveness using appropriate teaching strategies and technology.	
Activities	**Pedagogical Implications**
• The instructor will provide learning material for prospective teachers related to the curriculum to develop their comprehensive understanding of TPACK, pedagogical strategies, skills, and both teacher-centered and learner-centered teaching methods. • The prospective teachers will plan activities to enhance their knowledge and understanding of pedagogical skills for teaching social studies through collaborative exploration and practical application. • The instructor will provide PowerPoint resources for enhancing prospective teachers' understanding of social studies by providing handouts, slides, lesson plans, and teaching methods.	• The TPACK framework will aid teachers in effectively integrating technology, pedagogy, and content knowledge, promoting the use of digital tools for student engagement and understanding complex topics. • Pedagogical skills and teaching methods will offer a balanced approach, combining teacher-centered and student-centered methods to adapt to content complexity and student needs. • Student-centered activities will promote critical thinking, collaboration, and active participation in social studies classrooms, enhancing problem-solving and teamwork skills, particularly in societal, governance, and human behavior topics.

• The instructor will divide participants into small groups (3-5), assigning a topic to focus on discussion facilitation, case study analysis, debate moderation, role-playing, and inquiry-based learning. Summarize key points about their assigned skill application of PowerPoint and presentation in the social studies classroom. • The prospective teacher will involve group activities, presentations, and discussions on a specific topic, presenting their teaching methods, examples, benefits, and challenges, and encouraging questions to explore their impact on student engagement and learning outcomes, including their components, through presentations, videos, and interactive discussions. • The prospective teachers will be involved in preparing and documenting a report prescribed by an instructor on teaching methods in social studies for a final examination.	• A prospective teacher will gain hands-on experience in teaching methods through activities like lesson planning and role-play, allowing them to adapt methods to different topics and student needs in social studies. Prospective teachers gain a deeper understanding of pedagogical choices by working with various methods, enhancing their instructional skills by delivering historical content, or facilitating debates. • Prospective teachers will enhance their instructional design skills by creating mini-lesson plans focusing on instructional flow, transitioning, and timing, thereby enhancing their ability to plan well-structured lessons. • The prospective teachers will be involved in preparing and documenting a report on a prescribed topic.
Unit 2: Teaching Global History and Civic Education (13 Hours= 10 Th + 3 Pr)	
• Define the key objectives and importance of teaching history in the school-level social studies curriculum. • Identify the fundamental elements and areas covered under the nature and scope of history within the social studies curriculum at the school level.	2.1 Teaching history in school level 2.1.1 Nature and scope of history in social studies curriculum 2.1.2 Teaching world history- ancient civilizations of the world and their impact on the development of human societies; the transformative changes from the medieval to early modern

• Explain the significance of ancient civilizations in shaping human societies, describe the transformative changes from the medieval to the early modern world, and analyze the key developments from the Enlightenment to the present day, including global conflicts and their causes and impacts. • Critically evaluate the political, social, and cultural impacts of the ancient and medieval kingdoms of Nepal, analyze the significance of the unification of Nepal under Prithvi Narayan Shah, and assess the key events and transformations in modern Nepal, including the transition to democracy, the Maoist insurgency, and the country's current issues, proposing solutions for contemporary challenges. • **Practical Work**: Apply various sources of history (primary, secondary, and tertiary), tools and techniques of historical research, and methods of historical interpretation to analyze a historical event, ensuring the authenticity and reliability of the evidence, and organizing it through appropriate chronology and periodization for report preparation • Define the key concepts and significance of political science and civic education in the school-level social studies curriculum.	world, focusing on the Renaissance, the Reformation, and the Age of Exploration; the key developments in world history from the Enlightenment to the present day, focusing on the causes and impacts of global conflicts 2.1.3 Teaching history of Nepal: the ancient and medieval history of Nepal, focusing on the early kingdoms, the rise of the Malla period, and important rulers; the unification of Nepal under Prithvi Narayan Shah and the subsequent development of the Shah dynasty; modern history, particularly the transition to democracy, the Maoist insurgency, and contemporary issues. 2.1.4 Practical Work: Report preparation for classroom presentation 2.2 Teaching political Science/ civic education in school level 2.2.1 Nature and scope of civic education in social studies curriculum 2.2.2 Government and political systems: Democracy, monarchy, and dictatorship; role of elections and political parties; local, national, and international governments 2.2.3 Civic participation and responsibility: Voting and elections, community service and

• Identify the fundamental components and areas covered under the nature and scope of civic education within the social studies curriculum at the school level. • Explain the key characteristics of different government and political systems such as democracy, monarchy, and dictatorship, and describe the role of elections, political parties, and the structure of local, national, and international governments. • Evaluate the effectiveness of various forms of civic participation, such as voting, elections, community service, and activism, in promoting democratic values, and propose strategies to enhance civic engagement in local communities. • Critically analyze the role of the judiciary in protecting individual rights, examine the implications of crime and punishment, and compare civil and criminal law systems in fostering justice and fairness. • Assess global challenges related to human rights and the role of international organizations, such as the UN and NGOs, in addressing these issues, proposing solutions to enhance global citizenship and human rights protection. • Analyze the impact of social media on political activism, evaluate the implications of digital privacy and freedom of expression, and critically examine the	volunteering, civic engagement and activism 2.2.4 Law and justice: Role of the judiciary in protecting rights, crime and punishment, legal systems: civil vs. criminal law 2.2.5 Human Rights and Global Citizenship: Universal declaration of human rights, global challenges in human rights, the role of international organizations (e.g., UN, NGOS) 2.2.6 Civic Education in the Digital Age: Social Media and Political Activism; Digital Privacy and Freedom of Expression; Online Voting and Cybersecurity 2.2.7 Practical Work: Prepare a report from one issue for classroom presentation, such as Constitutions and constitutionalism, political development and modernization; diplomacy and foreign policy; governance and leadership; social justice and political participation; contemporary political issues

feasibility and risks of online voting and cybersecurity in the context of modern civic education. • **Practical work**: Develop a comprehensive project that applies the principles of civic education in Nepal, analyzing the role of constitutions and constitutionalism, political development, diplomacy, foreign policy, governance, and leadership, while addressing contemporary political issues and proposing solutions for enhancing social justice and political participation in Nepal.	
Activities	**Pedagogical Implications**
• Instructors will provide materials for teaching school-level Global History and Civic Education activities, focusing on engaging, interactive, and reflective lessons connecting historical events with current civic values. The activities outline the strategies that instructors and prospective teachers will employ to effectively facilitate learning in these specific areas. • The instructor will divide participants into small groups (3-5) participants, assigning a historical timeline activity for group discussion, PowerPoint preparation, and presentation. • The instructor will provide the historical timeline activities to comprehend significant global events and their influence	• The significance of the pedagogical implications of teaching global history and civic education will be as follows: • The prospective teachers will engage in active learning through hands-on activities like timelines and roleplaying, fostering critical thinking and making historical and civic concepts relevant. • The prospective teachers will engage in empathy building, which promotes students to view issues from various perspectives, fostering empathy and understanding of diverse cultures and viewpoints. • Prospective teachers will engage in civic responsibility, fostering

on civic life, selecting events, creating visual aids, and explaining their causes and effects. The prospective teacher will collaborate in groups to conduct research and create timelines, highlighting historical significance and lessons learned. • Prospective teachers will participate in a role-playing government simulation, where they will be assigned different roles within a government setting, explain basic functions, and set real-world scenarios. They will research their assigned role, collaborate with peers, and reflect on the challenges and rewards of civic engagement and policymaking. • Prospective teachers will participate in a global perspectives debate, exploring diverse perspectives on global issues. They will select a topic, provide resources, teach debate etiquette, and facilitate the conversation. The teacher will research assigned perspectives, participate, and discuss how understanding different perspectives enhances civic knowledge and empathy. • Prospective teachers will analyze global civic movements and their impact on social change. They will select case studies from various regions and time periods, analyze their causes, goals, strategies, and outcomes, and connect them to democratic	awareness of civic duties and the impact of individual and collective actions within a community. • The prospective teachers will engage in historical contextualization, which aids students in connecting past events to current social and political issues, thereby enhancing their understanding of civic concepts. • The prospective teachers will engage in collaborative learning, which promotes teamwork, communication, and problem-solving skills, which are crucial for civic engagement and broader learning contexts. • Prospective teachers will engage in reflective practice, focusing on the analysis of historical events and civic movements' impact on shaping democratic values. • The prospective teachers will participate in skill development, which aims to enhance research, debate, and presentation skills, preparing students for civic engagement and informed decision-making. • The prospective teachers will engage in a relevance to real-world issues program, integrating classroom activities with real-world scenarios to

principles and human rights. They will present findings to the class. • Prospective teachers will participate in a civic engagement project involving applying historical and civic knowledge to a local community project. The project will involve planning, researching, and executing, connecting it to broader civic concepts, and collaborating on its implementation and impact.	enhance the relevance and application of history and civics to students' lives.
Unit 3: Teaching Economics and Geography (13 Hours = 10 Th + 3 Pr)	
• Define the key objectives and benefits of incorporating economics into the school-level social studies curriculum. • Identify the fundamental concepts and areas covered under the nature and scope of economics in grades 9-10 social studies curricula. • Explain the basic economic problems, illustrate the concept of the production possibility frontier, and describe the methods used in economic analysis with relevant examples. • Explain the teaching **microeconomics** concepts such as demand, supply, and market equilibrium with examples from real-life scenarios • Analyze the **teaching macroeconomics** concepts, such as national income, inflation, and unemployment, and illustrate their impacts on the economy	3.1 Teaching economics in school curricula 3.1.1 Nature and scope of economics in social studies curricula 3.1.2 Teaching basic economic problems: scarcity, choice, and opportunity cost; the production possibility frontier (PPF); types of economic systems (market economy, command economy, and mixed economy); key economic concepts (utility, marginal utility, and consumer behavior; demand and supply: law, determinants, and equilibrium); methods of economic analysis 3.1.3 Teaching microeconomics: consumer behavior; cardinal and ordinal utility theories; theory of production; cost and revenue analysis, market structures, market failures and externalities

• Critically evaluate the **teaching development and international economics** on the economic development of Nepal, and propose strategies for addressing challenges related to international economics in the local context. • **Practical Work:** Prepare a comprehensive report analyzing the impact of a specific economic policy in Nepal, using relevant data and case studies to illustrate its implications for applied economics in the country's context for classroom presentation. • Define the key purposes and benefits of including geography in the school curriculum. • Identify the fundamental elements of geography and its relevance to social studies curricula at grades 9-10. • Explain the fundamental concepts of Earth's structure, plate tectonics, landforms, earthquakes, and volcanoes, and demonstrate the use of geographic tools and techniques in analyzing these phenomena. • Design and implement an interactive lesson plan that integrates physical geography concepts, such as climate systems, ecosystems, and landform processes, into real-world applications for student engagement.	3.1.4 Teaching macroeconomics: national income accounting; employment and output; money and banking; inflation and unemployment; fiscal policy and public finance 3.1.5 Teaching development and international economics: economic development; globalization and trade; absolute and comparative advantage; balance of trade and balance of payments; international organizations (IMF, World Bank, and WTO' regional trade agreements and economic integration) foreign exchange and international markets; exchange rate systems: fixed vs. Floating; development issues (poverty, inequality, and sustainable development; role of technology in development) 3.1.6 Practical work: On teaching applied economics and policy: behavioral economics, environmental economics, labor economics, public economics, economic policy analysis, Nepalese economics 3.2 Teaching geography at school curricula 3.2.1 Nature and scope of geography in social studies curricula at the school level (grade 9-10)

• Critically analyze the relationship between population distribution, cultural practices, and urban development, and propose innovative teaching strategies to make these concepts relatable to students. • Evaluate the socio-economic and environmental characteristics of different regions, and develop a comparative teaching framework to highlight the interconnectedness of global regions in the classroom. • Develop a teaching plan that integrates the physical, social, and cultural dimensions of Nepal's geography, incorporating case studies and local examples to enhance students' understanding and engagement. • **Practical work**: Apply geographic skills such as map-making, thematic mapping, data collection, fieldwork, and the use of GIS and remote sensing to design a practical project on environmental management, urban and rural planning, or geographical research, incorporating ICT tools for effective teaching and learning.	3.2.2 Basics of teaching geography Earth's structure and processes (composition and layers of the earth; plate tectonics and landforms; earthquakes and volcanoes); geographic tools and techniques (map reading and interpretation; use of globes, atlases, and GPS; Geographic Information Systems (GIS)); Geographic concepts (space, place, scale, and region; latitude, longitude, and time zones); the earth in space (earth's movements, rotation and revolution, seasons, equinoxes, and Solstices) 3.2.3 Teaching physical geography: structure and composition of the atmosphere; weather and climate: factors and elements; global wind systems and pressure belts; monsoons, cyclones, and climate change; hydrosphere: distribution of oceans, rivers, and lakes; ocean currents and their effects; water cycle and importance of water resources; lithosphere (landforms: mountains, plateaus, plains, and valleys; processes of erosion, weathering, and deposition; soils: formation, types, and distribution); biosphere (ecosystems and biomes;

	biodiversity and conservation; human impact on the environment) 3.2.4 Teaching Human Geography: Population Geography; Cultural Geography; Economic Geography; Political Geography; Resource Geography 3.2.5 Teaching Regional Geography: World geography (continents and their physical features, climate zones and vegetation patterns, natural resources and economic activities 3.2.6 Teaching Geography of Nepal: Physiographic Divisions: Mountains, hills, and Tarai; natural resources and biodiversity; challenges of urbanization and development 3.2.7 Practical work: On teaching applied geography: Geographic skills (map making and thematic mapping; data collection and fieldwork in geography; use of remote sensing and GIS); Environmental management; urban and rural planning; geography in everyday life; geographical research and education; teaching geography through ICT Tools
Activities	**Pedagogical Implications**

• Instructors will provide materials for teaching economics and geography at the school level, fostering conceptual understanding and engaging prospective teachers in interaction, group discussion, and problem-solving. • The instructor will divide participants into small groups (3-5) participants, assigning a mapping of natural resources and economic systems simulation activity for group discussion, PowerPoint preparation, and presentation. • Instructors will provide materials for economic systems simulation, aiming to understand different economic systems and their impact on society. The prospective teachers will be divided into groups, given scenarios, and guided through the activity. They will research and collaborate on their assigned system. • Instructors and prospective teachers will participate in the local economic survey project, analyzing the local economy through surveys, data collection, and trend identification. • Instructors will instruct prospective teachers on mapping natural resources, focusing on their economic and environmental implications in a specific area. The prospective teachers will prepare data through map analysis and local resource	• The pedagogical implications for teaching economics and geography at the school level are as follows: • Increasing interdisciplinary understanding aims to foster connections between geography and economics, demonstrating the interplay between physical resources and economic structures. • Fostering critical thinking and analysis skills and enhancing decision-making and problem-solving abilities is crucial for comprehending economic and geographic concepts. • Helping curriculum is designed to provide real-world relevance, connecting students' understanding of economic and environmental challenges to local and global issues. • Encouraging hands-on learning through simulations, surveys, and mapping activities fosters active, experiential learning among students. • Enhancing collaboration and communication is achieved by promoting group activities that enhance teamwork and communication skills. • Increasing spatial awareness is crucial for students to visualize economic and environmental factors spatially and comprehend their global implications.

analysis, discussing their impact on economic development and environmental sustainability, and analyzing and discussing sustainable management. • The instructor will set up a simulation involving countries with specific resources, facilitating trade between them, and discussing its effects on economic growth, dependency, and competition. The prospective teacher will engage in discussion on trade negotiations and understand the complexities of global trade, balancing imports and exports. • Instructors and prospective teachers will participate in the case study of environmental geography, examining environmental issues like deforestation and climate change and their economic impacts on specific regions. The instructor will address regional environmental issues, highlighting their economic impact, guiding prospective teachers in analyzing factors, proposing sustainable solutions, and balancing economic development with environmental preservation. • Instructors and prospective teachers will participate in a population density and urbanization mapping activity to comprehend the causes and effects of urbanization and population density. The instructor will provide data on urban	• Promoting sustainable thinking by raising awareness about sustainable resource management and environmental responsibility. • Fostering empathy and global perspective by recognizing the diverse economic and environmental challenges faced by various regions and communities.

population distributions and economic activities, explaining its impact on infrastructure, employment, and living standards. The prospective teacher will analyze urbanization's effects on housing, job availability, and public services.	
Unit 4: Teaching Cross-Cutting and Controversial Issues (13 Hours = 10 Th + 3 Pr)	
• Define the key concepts, nature, and significance of crosscutting issues in teaching social studies, and identify how these issues contribute to the overall understanding and development of students. • Explain and categorize the various types of crosscutting issues in teaching social studies, such as gender equality, social justice, environmental sustainability, and human rights, and describe their relevance in shaping a comprehensive social studies curriculum. • Discuss the concepts, nature, and significance of teaching controversial issues in social studies, explaining how such topics can promote critical thinking, foster civic engagement, and encourage students to explore multiple perspectives on societal challenges. • Analyze and evaluate the impact of different types of controversial issues in social studies, and develop a framework for selecting and addressing these issues in a way that encourages critical discussion and balanced understanding among students. • Design and justify a series of teaching strategies for effectively addressing crosscutting and controversial issues in social studies, ensuring that the chosen approaches foster critical thinking, open	4.1 Concepts and nature 4.2 Distinguish between cross-cutting issues, current affairs, controversial issues 4.3 Types of cross-cutting issues 4.4 Civic responsibility and democratic participation 4.5 Global citizenship and multicultural awareness 4.6 Human rights and social justice 4.7 Gender equality and social inclusion 4.8 Environmental stewardship and sustainable development 4.9 Peace and conflict resolution 4.10 Digital literacy and information ethics 4.11 Economic equity and social mobility 4.12 Ethics, transparency, and good governance 4.13 Health, well-being, and quality of life 4.14 Concepts, nature and importance 4.15 Types of controversial issues 4.16 Political and governmental issues. 4.17 Religion and secularism 4.18 Race and ethnicity 4.19 Gender and sexuality 4.20 Environmental and climate issues 4.21 Economic inequality and social class 4.22 Nationalism and globalization 4.23 Human rights and social justice 4.24 Historical interpretation and revisionism

dialogue, and a respectful exchange of diverse viewpoints in the classroom. **Practical work**: Collect primary data on a selected crosscutting or controversial issue using appropriate research methods, and prepare a comprehensive report for the final examination, demonstrating the ability to analyze sources, present findings, and offer solutions based on the collected data.	4.25 Science, technology, and society 4.26 Teaching strategies for cross-cutting and controversial issues: 4.27 Inquiry-based learning 4.28 Discussion and debate 4.29 Role-playing and simulations 4.30 Case studies and problem-based learning (PBL) 4.31 Collaborative learning 4.32 Practical work: Prepare a report for a given topic based on cross-cutting and controversial issues
Activities	**Pedagogical Implications**
• Instructors will offer materials to enhance conceptual understanding and engage prospective teachers in group discussions and problem-solving activities for teaching cross-cutting and controversial issues in social studies classrooms. • The instructor will divide participants into small groups (3-5) participants, assigning an activity on cross-cutting and controversial issues in social studies classrooms, including group discussion, PowerPoint preparation, and presentation. • Prospective teachers will review materials for selecting and using teaching approaches for current events and controversial issues, including group work, discussion, inquiry, project work, and classroom presentations. • Prospective teachers will engage in a debate on a controversial topic, dividing students into groups and promoting respectful discussion and evidence-based arguments. • Prospective teachers will participate in case studies on social justice issues, allowing students to analyze root causes, impacts, and potential solutions in small groups.	• The pedagogical implications for teaching cross-cutting and controversial issues are as follows: • Develop ideas for comprehending cross-cutting issues and controversial issues for group discussion in the social studies classroom. • Encourage critical thinking by evaluating various perspectives and the development of well-informed, reasoned opinions on complex issues. • Enhance students for comprehending their societal role and the significance of active participation in democratic processes. • Foster respectful dialogue among students by teaching them how to engage in structured debates and discussions on sensitive topics. • Promotes empathy and understanding by allowing students to appreciate diverse perspectives and experiences for fostering empathy and social responsibility. • Develop ethical reasoning by encouraging students to critically analyze contemporary issues, thereby improving

• Prospective teachers will engage in role-playing discussions on ethical dilemmas, assigning students different roles and fostering discussions to explore various perspectives and ethical considerations. • Prospective teachers will lead a course on impact mapping on environmental issues, guiding students through the interconnected effects of environmental issues on communities and ecosystems. • Prospective teachers will host a mock town hall, involving students discussing local issues like housing and resource allocation, promoting civic engagement through questioning and solution-proposal. • Prospective teachers will prepare a guideline for teaching cross-cutting issues and controversial issues in the social studies classroom. • Prospective teachers will collect data from **Primary sources**- historical documents, speeches and public addresses, diaries, journals, and letters, newspaper articles and reports from the time, photographs, videos, and audio recordings, government and official records, artifacts and physical objects, survey and poll data, interviews and oral histories, original research studies and scientific reports, social media posts and blogs; **Secondary sources- t**extbooks, academic journal articles, encyclopedias and reference books, biographies and documentaries, literature reviews and meta-analyses, commentaries and critiques, news analyses and opinion pieces, historical overviews and surveys, research reports from think tanks and institutes, reviews of literature and cultural works) • Prospective teachers will prepare a report for classroom presentations and the final examination.	their capacity to make value-based decisions. • Build problem-solving skills by encouraging students to explore real-world solutions, fostering critical thinking and creativity. • Enhance the real-world relevance of social studies for connecting classroom discussions to global, national, and local issues, thereby enhancing students' understanding of social studies in everyday life. • Prepare guidelines for teaching cross-cutting and controversial issues and report presentations in the classroom.

Unit 5: Evaluation in Teaching Social Studies (15 Hours = 10 Th + 5 Pr)	
• Define evaluation in the context of social studies teaching, and explain its significance in assessing student learning, improving teaching methods, and enhancing curriculum development. • Identify and explain the various purposes of evaluation in social studies, such as measuring student achievement, guiding instructional decisions, and providing feedback for curriculum improvement. • Explain the different aspects of evaluation in social studies, including placement, formative and summative evaluation, cognitive and non-cognitive outcomes, teacher-made tests, non-testing devices, and attitude and skill assessments, and describe how each aspect contributes to a comprehensive evaluation system in social studies education. • Critically analyze various methods for assessing different types of student performance in social studies, and propose a comprehensive assessment strategy that includes both qualitative and quantitative approaches to evaluate students' understanding, skills, and attitudes effectively. • **Practical work:** Develop a detailed specification chart for assessing student performance in social studies for grades 6–	5.1 Concepts and Importance of Evaluation 5.2 Purposes of evaluation 5.3 Aspects of Evaluation 5.3.1 Placement, formative, summative, and diagnostic evaluation 5.3.2 Continuous assessment system 5.3.3 Teacher-made tests 5.3.4 Non-testing devices 5.3.5 Attitude test and skill test 5.4 Assessing students' performance 5.4.1 Quantitative assessment-marking 5.4.2 Qualitative assessment-grading 5.4.3 Qualitative interpretation of students' performance 5.5 **Practical work** 5.5.1 Specification chart and marking scheme 5.5.2 Setting a good question paper - MCQ (10), very short answer questions (10), short answer questions (10), and long answer questions (10) for classroom presentation and documentation

8, aligning it with the curriculum goals, and demonstrate how to use the chart to guide the design of fair and effective assessments that measure a range of cognitive and skill-based outcomes. • Apply students' skills in constructing different types of test items, such as multiple-choice questions (MCQs), very short answer questions, short answer questions, and long answer questions, for practical work in social studies, ensuring that each item is clear, appropriately challenging, and aligned with specific learning outcomes for the assessment.	
Activities	**Pedagogical Implications**
• Glossary study • The instructor will provide learning materials related to the concepts, types, and importance of evaluation in teaching social studies. • Participation in group work for identifying the purpose of evaluation in teaching social studies. • Participation in the question-answer • Participation in group work and discussion for using placement, formative and summative evaluation, cognitive and non-cognitive outcomes, tools of evaluation, and teacher-made tests in social studies.	• Develop an understanding of the concepts, types, and importance of evaluation in teaching social studies. • Participation in group work for evaluation in teaching social studies. • Preparation and use of placement, formative and summative evaluation, cognitive and non-cognitive outcomes, tools of evaluation, and teacher-made tests and standardized tests in social studies • Prepare a report for classroom presentation and documentation.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

• Prospective teachers will be involved in the construction of different types of test items and a specification chart. • Prospective teachers will assess students' performance. • PowerPoint presentation • Prospective teachers will be involved in report preparation and classroom presentation.	

4. Evaluation Criteria

4.1 Internal Evaluation (25 Marks)

The course teachers based on the following activities will conduct an internal evaluation

SN	Particular	Marks
1	Attendance	3 Marks
2	Participation in Learning Activities	2 Marks
3	First assignment	5 Marks
4	Second assignment (Midterm exam) assessment	10 Marks
5	Third assignment/ assessment	5 Marks
Total		**25 Marks**

4.2 Inter Evaluation: Practical (15 Marks)

Internal Practical evaluation will be conducted in the campus/Department by the evaluation committee in the chair of the head of the department, subject teacher, and expert nominated by the campus/department chief.

SN	Particular	Marks
1	School visit and Report writing	5 Marks
2	Preparing micro lesson plan	5 Marks
3	Preparing test items	5 Marks
Total		**15 Marks**

- **External Evaluation: Theory (40 Marks)**

Examination Division, Office of the Dean, Faculty of Education will conduct the final examination at the end of the semester. The types and number of questions to be included in the final paper are as follows.

SN	Particular	Marks
1	Objective Type Question (Multiple Choice Questions)	10 × 1= 10 Marks
2	Short Answer Question (6 Questions with 2 Or)	6× 5= 30 Marks
Total		**40 Marks**

- **External Evaluation: Practical (20 Marks)**

  External Practical evaluation will be conducted in the Campus/Department by the evaluation committee in the chair of the head of the department, Subject teacher, and expert nominated by the campus/department chief.

SN	Particular	Marks
1	School Visit Report	5 Marks
2	Records of Practical Activities of Micro Lesson Plan, Construction of Test Items	10 Marks
3	Oral Examination (Viva-voce)	5 Marks
Total		**20 Marks**

5. Recommended Books and Reading Materials

Apple, Michael W. & Beane, James A. (2007). *Teaching for Democracy: A Brief Introduction*. Teachers College Press.

Baker, W. & Jickling, B. (2004). *Teaching Geography and Economics: Theory and Practice*. Routledge Falmer.

Banks, J. A. (2004). *Teaching for Diversity and Social Justice* (2nd ed.). Routledge.

Barton, K. C., & Levstik, L. S. (2004). *Teaching History for the Common Good*. Routledge.

Case, R., & Clark, A. (2013). *Teaching and Learning in the Middle Grades: A Guide for Teachers and Students in Social Studies and Science*. McGraw-Hill Education. (Unit 3)

CDC (2019). *National curriculum framework*. Curriculum Development Center (Unit 4)

Chien Lee Shing, Rohaida Mohd, and Saat, Siow Heng Loke (2015). The knowledge of *teaching*: Pedagogical Content Knowledge (PCK). *The Malaysian Online Journal of Educational Science,* 3 (3). (Unit 1)

Engle, S., & *Ochoa*, A. (1988). *Education for Democratic Citizenship: A Critical and Cross-Cultural Perspective*. Teachers College Press.

Gilbert, D., & Stix, B. (2013). *Teaching Economics: A Handbook for Teachers*. Routledge.

Hess, D. (2009). *Controversy in the Classroom: The Democratic Life of Civic Education*. Routledge.

Judd, C. M., Smith, E. R., & Kidder, L. H. (2017). *Research Methods in Social Relations*. Wadsworth Publishing.

Kahne, J., & Westheimer, J. (2003). *Teaching Democracy: What Schools Need to Do*. Teachers College Press.

Kapur, R. (2020). *Theories of pedagogy*. https://www.researchgate. net/publication/ 345224426_Theories_of_Pedagogy

Lemke, J. L. (2001). *The Discourse of the Classroom: Implications for the Teaching of Economics*. SAGE Publications.

Levstik, L. S., & Barton, K. C. (2008). *Doing History: Investigating with Children in Elementary and Middle Schools*. Routledge.

Linnegar, Deborah J. D. S. (2006). *Critical Thinking and Controversial Issues in the Social Studies*. The Journal of Social Studies Research.

Loewen, J.W. (1995). *Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong*. The New Press. (Unit 2)

McAlister, Jack D., & Brams, Steven L. (1999). *Teaching Controversial Issues: A Guide for the Social Studies Classroom*. Prentice Hall.

National Curriculum Standards for Social Studies (NCSS): *The themes of social studies.* https://www.socialstudies.org/national-curriculum-standards-social-studies-chapter-2-themes-social-studies

Norris M. Haynes, S. L. (2009). *Civic Education: An International Analysis*. Routledge.

Palmer, J. & Sutherland, R. (2009). *Teaching Geography: A Guide for Teachers*. Routledge.

Parker, W. C. (2003). *Teaching Democracy: Unity and Diversity in Public Life*. Teachers College Press.

Pathak R. P. (2012). *Teaching of social studies*. Pearson Education

Ross, E. Wayne (2000). *The Social Studies Curriculum: Purposes, Problems, and Possibilities*. State University of New York Press.

Schiller, Jonathan P. (2009). *The Politics of Teaching: Controversial Issues in Social Studies*. Pearson.

Smith, K. & Owen, R. (2005). *Geography and Economics: The Global Interaction*. Pearson Education.

Smith, P., & Lee, H. (2009). *Global Education and the Teaching of History*. Routledge.

Turner, Thomas N. & Mertens, Steven B. (2005). *Teaching Social Studies for Elementary and Middle School Children*. Pearson Education.

Weitzman, Elisabeth M. (2006). *The Social Studies Handbook: A Guide for Teachers*. Oxford University Press.

Williams, M. (2005). *Teaching Economics at the High School Level: Concepts and Application*. Pearson.

Course Code: Supervised Teaching

Course Code: IPM. Ed. 491

Level: PGDE

Semester: Second

Nature of Course: Theory + Practical

Credit Hours: 3

Teaching Hours: 64 (32 Th + 32 Pr)

---

1. Course Description

This course provides an in-depth understanding of supervised teaching for prospective teachers Post-Graduate Diploma (PGD) in education. The course consists of two credits theoretical and one credit of practical work, which include a broader understanding of educational administration and supervision with practical skills. Educational supervision is an applied discipline for bringing the desired result, i.e., efficient and effective educational organization. The students are therefore encouraged to have a broader conceptual clarity about its different facets that work in tandem to drive the organization to deliver quality education services to the people.

2. General Objectives

The general objectives of the course are as follows:

- To identify the concept and importance of supervised teaching.
- To conceptualize the instructional and administrative supervision for teaching.
- To understand the perspective of clinical supervision in teaching.
- To acquaint the knowledge of recent trends in supervised teaching
- To explore the supervisory practices in Nepal

3. Specific Objectives and Contents

Specific Objectives	Contents
• Describe the concept of supervised teaching • State the functions of teachers in supervised teaching • Explain the dimensions of supervised teaching • Identify the major challenges in supervised teaching	**Unit 1: Supervised Teaching (10 Hours = 5 Th + 5 Pr)** 1.1Concept and importance of supervised teaching 1.2 Functions of teachers in supervised teaching 1.3 Principles of supervised teaching 1.4 Dimensions of supervised teaching 1.5 Major challenges in supervised teaching
Practical Work • Prepare at least five supervised teaching plans and deliver in class.	

• Explore the current practices in supervised teaching and their challenges based on community schools in Nepal including your reflections in 500 to 600 words.	
Instructional Techniques **Role of Facilitator** Provides reading materials to the prospective teachers Facilitate the prospective teachers and provide feedback in the classroom **Role of Prospective Teachers** Review the related literature and present it in class Provides feedback and comments to the peer/colleague	**Pedagogical Implication** Gain insight in supervised teaching and helps to teach effectively in the classroom.
• Explain the concept and purpose of instructional and administrative supervision • Describe the functions of school supervision • Describe the style of school supervision • Explain the close and distant school supervision • State the approaches to supervision	**Unit 2: Instructional and Administrative Supervision for Teaching (8 Hours = 5 Th +3 Pr)** 2.1 Concept and purpose of instructional and administrative supervision 2.2 Functions of school supervision 2.3 Styles of school supervision 2.4 Close and distant school supervision 2.5 Approaches to supervision • Power with approach • Power over approach • Competency-based approach
Practical work 1. Explore the experiences of head teachers in administrative supervision. (400 – 500 words) 2. Uncover the supervisory practices in community schools in Nepal. (400 – 500 words)	
Activities **Role of Facilitator** Provides reading materials to the students Facilitation for class discussions and presentations providing feedback in the classroom **Role of Prospective Teachers** Search the related literature and review and present it in class Providing feedback and comments to the peer/colleague	**Pedagogical Implications** Regular administrative supervision contributes to the teacher delivering instruction effectively in the classroom.

• Explain the concept and purpose of clinical supervision • Identify the stages/ process of clinical supervision • Explore the teacher-supervisor relationship • Elaborate on the role of instructional planning in clinical supervision • Identify the elements of instructional planning in clinical supervision • Elaborate on the ways of instructional support for teaching • Explore the practical issues of clinical supervision	**Unit 3: Clinical Supervision for Teaching (10 Hours = 7 Th +3 Pr)** 3.1 Concept and purpose of clinical supervision 3.2 Stages/ Processes of clinical supervision 3.3 Teacher-supervisor relationship 3.4 The role of instructional planning in clinical supervision 3.5 Elements of instructional planning in clinical supervision 3.6 Instructional supports for teaching (direct teaching, team teaching, group instruction, contract method, individualized instruction, and interdisciplinary instruction) 3.7 Practical issues in clinical supervision
Practical work Visit a school and conduct interviews with teachers on practical issues in clinical supervision and prepare a report with major findings and ways for effective implementation. (500-600 words)	
Instructional Techniques **Role of Facilitator** Provides reading materials to the students Facilitation for class discussions and presentations and providing feedback in the classroom **Role of Prospective Teachers** Create an annotated reading list based on their reading for this unit. Review the related literature and present it in class Provides feedback and comments to the peer/colleague	**Pedagogical Implication** Clinical supervision identifies teaching and learning problems and ways for effective measures and provides insights to teachers to apply effective instructional planning in their teaching and learning.
• Identify the practices of diagnostic supervision in school • State the practices of the teacher support system • Explain the practices of research-based teaching in school • Describe the practices of participatory supervision in school	**Unit 4: Recent trends in Supervised teaching (10 Hours = 5 Th + 5 Pr)** 4.1 Diagnostic supervision 4.2 Teacher support system 4.3 Research-based teaching 4.4 Participatory supervision 4.5 Self-appraisal / Reflective Teaching

• Explore the experiences of self-appraisal/ reflective teaching of the teacher	

Practical work

Explain the practices of diagnostic supervision, teacher support system, and research-based teaching in community schools in Nepal. (Write in 600 to 700 words)

Instructional Techniques	**Pedagogical Implication**
Role of Facilitator • Divide the students into five groups and provide five different issues. • Provides a guideline for preparing for interviews and let them visit community school teachers to collect existing trends in supervised teaching. • Supports participants in identifying key issues • Facilitation for class discussions and presentations and providing feedback in the classroom **Role of Prospective Teachers** • Create an annotated reading list based on their reading for this unit. • Review the related literature and present it in class • Visit with community school teachers • Conduct interviews and collect information • Identify key themes based on teachers' information • Present in class and provide feedback and comments to the peer/colleague	• Acquire recent supervisory teaching practices and apply them effectively in the classroom.
• Explore the monitoring and supervision system in Nepal • Point out the Supervisory practices in Nepal NNEPC (2011) to upwards • Explore the gaps between policy and practices of monitoring and supervision • Identify the effectiveness of local Government supervision	**Unit 5: Supervisory Practices in Nepal** **(10 Hours = 5 Th + 5 Pr)** 5.1 Monitoring and Supervision System in Nepal 5.2 Supervisory practices in Nepal NNEPC (2011) to upwards 5.3 Gaps between policy and practices of monitoring and supervision 5.4 Practices and effectiveness of local Government supervision including school level

• Explore the lessons learnt from supervisory practices	5.5 Lessons learnt from supervisory practices
Practical work 1. Review the educational plan and policies of Nepal based on supervisory practices in Nepal and write your reflection. (800 -1000 words) 2. Interview at least five teachers about the lessons learnt from the supervisory practices and prepare a report with your reflection. (800 -1000 words)	
Instructional Techniques **Role of Mentor** • Provide reading materials to the students. • Facilitate class presentation and provides feedback. **Role of Participants** • Create an annotated reading list based on their reading for this unit. • Review the related literature and present it in class • Providing feedback and comment to the peer/colleague	**Pedagogical Implications** • Helps to know the policy provision related to supervised practices, gain insights into policy gaps, and support ways out for effective supervised practices.

Note: The number within parenthesis indicates the approximate teaching hours allocated to respective unit.

4. Evaluation Criteria

4.1 Internal Evaluation **(25 marks)**

The concerned teacher will carry out the internal evaluation of the students based on the following criteria.

1. Attendance	3 Marks
2. Participation in Learning	3 Marks
3. First Assignment/Assessment	6 Marks
4. Second Assignment/Assessment	6 Marks
5. Third Assessment	7 Marks
Total	25 Marks

4.2 Evaluation of Practical Work **15 + 20 = 35 Marks**

Internal and External Practical work will be evaluated in the campus/department by the evaluation committee in the chair of the head of the department and expert appointed by the dean's office. Each prospective teacher should collect unit-wise practical work, and an external

supervisor will evaluate the reports based on APA 7 academic writing format. Evaluation marks are allocated 15 marks for the **internal evaluator** and 20 marks for the **external evaluator**

4.3 External Evaluation (Final Examination)

The examination section, Dean's Office, Faculty of Education, will conduct the final examination at the end of the semester. The number of items in each question category and distribution of points to be included in the final examination paper is as follows: Students should obtain 20 marks to pass the examination.

1. Objective Type Questions (10 Multiple Choice Questions)	10 × 1= 10 Marks
2. Short answer questions (6 Questions with 2 Or)	6× 5 = 30 Marks
Total	**40 Marks**

5. Recommended Books and Reading Materials

Adams, H.P. & Dickey, F. G. (1975). *Basic principles of education administration and supervision.* New York: American Book Company. **(Unit 2)**

Adhikari, N.P. (2079). *Educational administration and supervision.* Kathmandu: Aashis Pustak Bhandar.

Campbell, R. F. & Others (1968). *Introduction to educational administration.* Boston: Allva and Bacon, Inc.

Cogan, M. L. (1973). *Clinical Supervision.* Boston: Houghton Mifflin **(Unit 3)**

Gill, D. S. (2010). *Educational administration and organization management.* New Delhi: Saurabh Publishing House Lotus Press

Holloway, E. (1995). *Clinical supervision: A systems approach.* Sage.

Ibara, E. C. (2013). Exploring clinical supervision as an instrument for effective teacher supervision. *Africa Education Review*, *10*(2), 238-252.

Judy L. (2001) Supervision of student teachers: emerging models and innovative approaches in the USA, Teacher Development, 5:3, 309-322, DOI: 10.1080/13664530100200146 **(Unit 4)**

Mastoras, S. M., & Andrews, J. J. (2011). The supervisee experience of group supervision: Implications for research and practice. *Training and Education in Professional Psychology*, *5*(2), 102

Mogea, T. (2019). Educational supervision: Theories and practices. Cetakan: Pertama **(Unit 1)**

Research Centre for Educational Innovation and Development. (2004). *Monitoring and Supervision of Alternative Schooling Programme* (FRP Report 29/2004). **(Unit 5)**

Rich, P. (1993). The form, function, and content of clinical supervision: An integrated model. *The Clinical* Supervisor, *11*(1), 137-178.

Rodrigues, M. J., & Lopes, R. P. (2018). Holistic Learning Evidences in the Supervised Teaching Practice Reports. *Economy, Business and Uncertainty: New Ideas for a Euro-Mediterranean Industrial Policy*, *180*, 12.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Shrestha, C.B. (2020). Educational Administration and Supervision, Kathmandu: Bhudipuran Publication.

Sivan, A., & Chan, D. W. (2003). Supervised Teaching Practice as a Partnership Process: Novice and experienced student teachers' perceptions. *Mentoring and Tutoring*, *11*(2), 183-193.

White, P. T., & Stephenson, A. E. (2000). Supervised teaching practice: a system for teacher support and quality assurance. *Medical Teacher, 22*(6), 604-605. https://doi.org/10.1080/01421590020007351

Wiles, K. & Lovell, J.T. (1975). *Supervision for better schools.* New Jersey: Prentice- Hall.

Course Title: Teaching of Biology and Environment Science

Course Code: Sc. Ed. 491

Nature of Course: Theory + Practical

Level: PGDE

Total Credit: 3 (2T+1P)

Semester: Second

Teaching Hours: 64 (32 Th + 32 Pr)

---

1. Course Description

The course is designed to develop professional Biology and Environmental Science teachers with strong pedagogical knowledge, practical classroom skills, and the ability to effectively teach, learn, and assess these subjects. It introduces prospective teachers to both theoretical concepts and hands-on skills through activity-based, constructivist approaches. The course emphasizes innovative teaching strategies, equipping future educators with modern methods and up-to-date knowledge in biological sciences. The curriculum engages students with various aspects of Biology and Environmental Science Education, incorporating technology-driven instruction. It addresses the needs of contemporary educators by providing pedagogical frameworks, strategies, and resources through blended learning formats.

Divided into six units, the course covers a wide range of topics related to teaching and learning approaches in Biology and Environmental Science. It enhances both theoretical understanding and practical skills, preparing prospective teachers to teach effectively in national and global contexts. To successfully complete the course, students must pass both the theoretical and practical components.

2. General Objectives

The general objectives of this course are:

- To provide in-depth knowledge of Biology and Environmental Science to individuals who view these subjects as lifelong pursuits.
- To enhance the skills and competencies of prospective teachers in Biology and Environmental Education, enabling them to work effectively in their respective fields.
- To acquaint prospective teachers with the knowledge and skills necessary for instructional planning in Biology and Environmental Sciences.

- To develop the competencies needed to analyze Biology and Environmental curricula, textbooks, and teacher guides.
- To provide prospective teachers with a thorough understanding of modern methods, approaches, techniques, and models related to Biology and Environmental Science teaching and learning.
- To plan learning activities, construct behavioral objectives, and prepare improvised teaching materials and models.
- To prepare comprehensive reports on Biology and Environmental Science lessons in line with the curriculum.

3. Specific Objectives and Contents

Part 1: Theory

Specific Objectives	Contents
• Explain the nature and characteristics of Biology and Environmental Education. • Discuss the importance of Biology and Environmental Education in terms of biological literacy (STL, STS), scientific temper, and value perspectives: eco-centric and anthropocentric. • Highlight the significance of Biology and Environmental Education in human health, veterinary science, animal husbandry, industry, pollution control, natural resource management, and vocational opportunities. • Assess the current status, history, and key issues and trends in Biology and Environmental Education, including plans, policies, and their implementation. • Identify misconceptions related to biological and environmental sciences.	**Unit 1: Introduction to Biology and Environment Education (4 Hours)** 1.1. Nature, characteristics and importance of Biology Education and Environment Education 1.2. Status, issues and trends of Biology and Environment Education 1.3. Misconceptions towards Biological and Environmental Science in society. 1.4. Indigenous knowledge in Biology and Environment Education 1.5. Correlation of biology and environment in life.

• Explore indigenous knowledge related to Biology and Environmental Education, including its uses, resource management, environmental management, and ecosystem services. • Relate Biology and Environmental Education to everyday life.	
Learning Engagement	
Activities	Pedagogical Implications
• Learning resources such as handouts, soft copies of articles, book chapters, books, video links, and URLs will be provided to prospective teachers a few days before class. During class, the facilitator allocates time for participants to share ideas based on specific objectives and assigns roles for sharing. The facilitator may also connect relevant stories to the objectives. Prospective teachers are expected to review the provided materials in preparation. Later, the facilitator offers an opportunity for prospective teachers to present their critical understanding of the objectives in class. • The facilitator delivers the content using multimedia presentations, evaluates class activities, and provides feedback for improvement. Additionally, there is discussion and a question-answer session on the rationale behind the content's inclusion in school education. • The facilitator critiques, comments on, and summarizes the content, linking it with the experiences, insights, and reflections of the prospective teachers.	• Explain the nature, characteristics, and importance of Biology and Environmental Education based on the discussion. • Present the historical development, current status, prevalent issues, and trends of the Biology and Environmental Education curriculum at the school level in Nepal. • Identify societal misconceptions regarding Biological and Environmental Sciences. • Assess indigenous knowledge related to Biology and Environmental Science, including its uses, resource management, environmental management, and ecosystem services. • Explore the relationship between Biology and the environment in everyday life.
	Unit 2: Objectives, Curriculum and Co-curricular Activities of Teaching Biology and Environment (5 Hours)

• Discuss the goals, aims, and general objectives of current Biology and Environmental teaching at the secondary level. • Construct the objectives at different levels (general, behavioral, specific) based on Bloom's revised taxonomy, using Biology and Environmental lessons. • Describe the objectives, need, and importance of the Biological Sciences Curriculum Study Project (BSCS) and the Nuffield Foundation Science Technology Project (NFSTP). • Analyze the concepts of Biological Science curriculum study projects (BSCS, NFSTP) and apply them to the curriculum development process for Biology and Environmental Education in Nepal. • Review the Biology and Environmental Science curriculum and text book (grade 6 to 10). • List the importance and components of teaching skills in Biology instruction. • Introduce science clubs, eco-clubs, science museums, and educational tours, and describe their importance in teaching Biology and Environmental Education. • Explain the role of museums, exhibitions, zoos, botanical gardens, aquariums, and family visits in learning about Biology and Environmental issues.	2.1. Aims and objectives of teaching Biology and Environment Science 2.2 Biological science curriculum study projects: • BSCS Project (Objectives, Need, organization, theme and versions) • Nuffield Foundation Science Technology Project (Objectives, Nuffield Foundation Biology Series) • Review of Biology and Environment Science curriculum and textbook (Grade 6 to 10). • Characteristics, importance and component of teaching skills • Teaching through co-curricular activities (Science Club, Eco-club, educational tour) • Learning Outside of the School • Museum • Exhibitions • Zoo • Aquarium, Botanic gardens • Media: Print and digital media • Family visits: inquiry with the parents

Learning Engagement	
Activities	Pedagogical Implications
• Learning resources, including handouts and soft copies such as articles, book chapters, books, video links, and URLs, will be provided to prospective teachers. • Discussion on the goals, aims, and general objectives of current Biology and Environmental	• List the goals, aims, and general objectives of current Biology and Environmental teaching at the secondary level. • Develop objectives at different levels based on Bloom's revised

teaching at the secondary level will be based on prior knowledge. • Groups will be assigned to construct learning objectives from different lessons at various levels, followed by presentations and feedback. • Two groups will be assigned to analyze the BSCS and NFSTP, present their findings, and receive feedback. Each group will also develop a report based on the practices of BSCS and NFSTP. • Facilitation will be provided for writing effective textbooks in line with the existing curriculum. • A seminar will be organized for presentations reviewing the current Biology and Environmental curriculum at the school level, with respect to national policies, and comparing it to the curriculum of SAARC or developed foreign countries. • The facilitator will deliver content through multimedia presentations, discussions, and question-answer sessions, based on the objectives of each topic as needed. • Organize field visits as part of in-person learning to museums, exhibitions, zoos, botanical gardens, etc., and collaborate on report preparation using online tools and technology. • Facilitate presentations of models, reports, concept maps, or lesson plans in class. • The facilitator critiques, comments, and summarizes the content by connecting it with the experiences, insights, and reflections of prospective teachers.	taxonomy, using Biology and Environmental lessons. • Analyze and apply the concepts of Biological Science curriculum study projects (BSCS, NFSTP) in the curriculum development process for Biology and Environmental Education in Nepal. • Write effective textbooks based on the existing curriculum. • Review the Biology and Environmental Science curriculum in relation to national policies and compare it with the curriculum of SAARC countries or developed nations. • Develop and demonstrate the teaching skills required for teaching Biology, along with their components. • List the importance and components of teaching skills in Biology instruction. • Establish and lead science clubs and eco-clubs. Organize field visits or educational tours to museums, zoos, botanical gardens, and exhibitions.

The facilitator also evaluates class activities and provides feedback for further improvement.	• After the field visit, explain the role of museums, exhibitions, zoos, botanical gardens, aquariums, and family visits in learning Biology and Environmental issues.

• Design and implement the appropriate teaching pedagogy on teaching biology and environment lessons as appropriate in in grade six to ten respectively. The units include:
  • Cell biology (cells, cell division, tissues)
  • Life process (movement, nutrition, respiration, photosynthesis, transpiration, reproduction, excretion etc.)
  • Biodiversity (with taxonomy) and conservation
  • Genetics (genetic materials, Mendelism, linkage, crossing over, mutation etc.)
  • Ecology and Environment (Ecosystem, pollution, greenhouse effect, acid rain etc.)
  • Evolution
  • Biotechnology
  • Microbiology
  • Vegetation, adaptation, animal behavior etc.
• Develop the modules in above mentioned units as appropriate to teach in grade six, seven, eight, nine or ten respectively.
	Unit 3: Teaching Biology and Environment Lessons in Schools (12 Hours)
	The units include:
	  • Cell biology
	  • Life process
	  • Biodiversity and conservation
	  • Genetics
	  • Ecology and Environment
	  • Evolution
	  • Biotechnology
	  • Microbiology
	  • Vegetation, adaptation, animal behavior etc.

Learning engagement	
Activities	Pedagogical Implications
• Learning resources, including handouts and soft copies such as articles, book chapters, books, video	• The prospective teachers will design the appropriate teaching

links, and URLs, will be provided to prospective teachers. • The perspective teachers will be assigned to design and implement the appropriate teaching pedagogy on teaching biology and environment lessons as appropriate in in grade six to ten personally or in group. • The design and teaching pedagogy will be evaluated ad provided the feedback to each presentation given by the perspective teachers. • The facilitator will critique, comment on, and summarize the content, connecting it with the experiences, insights, and reflections of prospective teachers. Class activities will be evaluated, and feedback will be provided for further improvement.	pedagogy on teaching biology and environment lessons as described in the above content as appropriate in in grade six to ten. • The prospective teachers will implement the appropriate teaching pedagogy on teaching biology and environment lessons as appropriate in in grade six to ten as prescribed in the respective curriculum. • Develop the modules in above mentioned units as appropriate to teach in grade six, seven, eight, nine or ten respectively.
• Define leadership in the context of addressing environmental issues both locally and globally. • Adapt leadership strategies for effective environmental management. • Describe the significance of leadership in environmental management and its integration into pedagogical practices during field visits, fairs, and exhibitions. • Define pedagogical analysis. • Identify the major steps involved in pedagogical analysis. • Conduct a pedagogical analysis of the units which are in grade 6 to 10 as mentioned in unit III, i.e., Cell biology, Life process, ….etc.	**Unit 4: Leadership, Pedagogy Analysis and Assessment (6 Hours)** 4.1 Introduction, strategies and importance of Leadership in Environmental Management. 4.2 Introduction, major steps and significance of pedagogical analysis. 4.3 Pedagogical analysis of the contents mentioned in unit III, i.e., Cell biology, Life process….etc. 4.4 Assessment and evaluation system in Biology and Environment in secondary level in Nepal. **4.5** Non-testing devices of assessment/evaluation

• Analyze the current assessment and evaluation system for Biology and Environmental Education at the secondary level in Nepal. • List and explain non-testing evaluation/assessment tools such as observation, checklists, rating scales, anecdotal records, cumulative records, questionnaires, self-evaluation, case studies, and interviews. • Describe the methods and importance of using Learning Management Systems (LMS)/Moodle for assessment and evaluation. • Explain Continuous and Comprehensive Evaluation (CCE) in Biology and Environmental Education. • Develop a CCE model for evaluating Biology. • Define and elaborate on the Continuous Assessment System (CAS) in Biology and Environmental Education.	**4.6** Relationship between objective, learning experience and assessment in biology. **4.7** CCE and CAS
Learning Engagement	
Activities	Pedagogical Implications
• Provide learning resources (both printed and electronic) relevant to the subject areas and support the conceptualization of lessons. • Based on the review of these resources and group discussions, prospective teachers will identify effective leadership strategies for teaching Biology and Environmental topics. They will also take the lead in implementing environmental management practices in schools and communities, and in organizing and integrating pedagogical activities during field visits, fairs, and exhibitions.	• Implement leadership strategies in teaching Biology and Environmental lessons. Take the lead in applying environmental management practices in schools and communities, and in organizing pedagogical activities during field visits, fairs, and exhibitions. • Conduct a pedagogical analysis of the prescribed content.

• The facilitator will develop a project focused on analyzing the prescribed content from a pedagogical perspective. Prospective teachers will engage with the project and present their findings. • The facilitator will develop a report preparation plan and supply the necessary literature for analyzing the current assessment and evaluation system in Biology and Environmental Education at the secondary level in Nepal. • Prospective teachers will explore non-testing evaluation and assessment tools such as observation, checklists, rating scales, anecdotal records, cumulative records, questionnaires, self-evaluation, case studies, and interviews from online sources and present their findings in class. This will be followed by a discussion with the facilitator. • The facilitator will demonstrate examples of Learning Management Systems (LMS) used by educational institutions. Prospective teachers will observe, identify key features, and describe how to use LMS for learning management. • Discuss current practices of Continuous and Comprehensive Evaluation (CCE) and Continuous Assessment System (CAS) in schools, and conclude with a presentation, including feedback from student discussions and a summary of the class. • The facilitator will critique, comment on, and summarize the content, connecting it to the experiences, insights, and reflections of the perspective teachers. They will also evaluate class	• Engage prospective teachers in planning context-based teaching for Biology and Environmental subjects. • Analyze the current assessment and evaluation system for Biology and Environmental Education at the secondary level in Nepal. • Utilize non-testing evaluation and assessment tools such as observation, checklists, rating scales, anecdotal records, cumulative records, questionnaires, self-evaluation, case studies, and interviews. • Implement Learning Management Systems (LMS)/Moodle for assessment and evaluation. • Apply Continuous and Comprehensive Evaluation (CCE) and Continuous Assessment System (CAS) in Biology and Environmental Education.

activities and provide feedback for further improvement.	
• Introduce and outline the need and significance of laboratory work in Biology. • Create an outline of a secondary-level Biology lab on chart paper. • Discuss laboratory awareness and safety measures in a Biology lab. • Introduce and develop low-cost, improvised materials for Biology practical activities. • Collect and preserve plant and animal specimens using appropriate preservation techniques. • Describe the importance of a vivarium, aquarium, terrarium, and herbarium. • Develop models of an aquarium, vivarium, terrarium, and herbarium. • Define bioethics. • Explain bioethical issues related to genetics, biotechnology, and conservation, including topics such as cloning, genetic modification, and CRISPR technology, and discuss their ethical implications. • Apply ethical practices in the collection and management of plant and animal specimens. • Explain the impact of human activities on the environment and biological systems.	**Unit 5: Biological Laboratories and Bioethics (5 Hours)** 5.1 Need and significance of laboratory work. 5.2 Design Biology lab for secondary level. 5.3 Laboratory awareness and skills • Handling of microscope • Lab management • Handling dissection apparatus • Laboratory accidents and safety measures 5.4 Improvisation of instructional materials 5.5 Collection and preservation of plant and animal specimens • Vivarium, Aquarium, Terrarium • Herbarium. 5.6 Bioethics • Bioethical issues in genetics, biotechnology, and conservation. • Ethics in Collection and management of Specimens 5.7 Human impacts on the environment and biological systems.
Learning Engagement	

Activities	Pedagogical Implications
• Provide printed and electronic learning resources for the respective areas and support the conceptualization of lessons. • The facilitator will present videos and photos of suitable labs and initiate a discussion on the essential components of a laboratory appropriate for Biology and Environmental Science. Prospective teachers will then determine the importance of these components and design a model laboratory based on the discussion. • The facilitator will show videos and photos of common laboratory accidents or begin with related historical accounts and experiences. Prospective teachers will develop ideas for safety measures, and the session will conclude with feedback and a PowerPoint presentation. • Assist in the development of low-cost, improvised instructional materials and the collection and preservation of plant and animal specimens, following necessary ethical guidelines. • Discuss bioethical issues as outlined in the curriculum and conclude with a presentation. • Develop a project on human impacts on the environment and biological systems. Prospective teachers will collect videos or photos and present their findings. • The facilitator will critique, comment on, and summarize the content, relating it to the experiences, insights, and reflections of the	• Analyze the need for and significance of laboratory work in Biology and Environmental Science. • Create an outline of a secondary-level Biology lab on chart paper. • Implement laboratory awareness and safety measures during practical activities in the Biology lab. • Develop low-cost, improvised materials for Biology practical activities. • Collect and preserve plant and animal specimens using appropriate preservation techniques. • Create models of an aquarium, vivarium, terrarium, and herbarium. • Apply bioethical principles from genetics, biotechnology, and conservation to everyday life and professional practices. • Ensure ethical practices in the collection and management of plant and animal specimens. • Adapt and employ strategies to address human impacts on the

prospective teachers. They will also evaluate class activities and provide feedback for further improvement.	environment and biological systems.

Note: The figure within the parentheses indicates the approximate teaching periods for each unit.

Part II: Practical

Contents of Experiment/ Practical activities.

S.N.	Units	Practical Works (Total 48 hours.)
1	Unit 1: Introduction to Biology and Environment Education (8 Hours)	1. Prepare a report on the importance of Biology and Environmental Education, focusing on biological literacy (STL, STS), scientific temper, and value perspectives such as eco-centric and anthropocentric views. Include its significance for human health, veterinary and animal husbandry, industry, pollution control, natural resources, and vocational opportunities. 2. Prepare a report detailing the history, current status, and emerging issues and trends in Biology and Environmental Education. Address government plans, policies, and practices up to the implementation level.
2	Unit 2: Objectives, Curriculum and Co-curricular Activities of Teaching Biology and Environment (10 Hours)	3. Construct learning objectives for different lessons of the subject at various educational levels from biology and environment lessons of grade 6 to 10. 4. Analyze the BSCS and NFSTP in two groups and prepare a report based on the practices of each. 5. Review the current Biology and Environmental curriculum at the school level in relation to national policies and compare it with curricula from SAARC countries or developed foreign countries. 6. Organize a field visit to botanical gardens, zoos, museums, etc., for prospective teachers or students from the school. Prepare a report on the field visit. 7. Organize an exhibition or science fair at the school or visit a nearby science fair. Prepare a report on the event, focusing on leadership perspectives.
3	Unit 3: Teaching Biology and	8. Design the appropriate teaching pedagogy on teaching biology and environment lessons as appropriate in in grade six to ten respectively. The units include: Cell

	Environment Lessons in Schools (14 Hours)	biology (cells, cell division, tissues), Life process (movement, nutrition, respiration, photosynthesis, transpiration, reproduction, excretion etc.), Biodiversity (with taxonomy) and conservation, Genetics (genetic materials, Mendelism, linkage, crossing over, mutation etc.), Ecology and Environment (Ecosystem, pollution, greenhouse effect, acid rain etc.), Evolution, Biotechnology, Microbiology, Vegetation, adaptation, animal behavior etc. (at least **three** pedagogical designs from any three lessons of any grade from 6 to 10 for each students personally) 9. Develop the modules in above mentioned units as appropriate to teach in grade six, seven, eight, nine or ten respectively.
4	Unit 4: Leadership, Pedagogy Analysis and Assessment (8 Hours)	10. Analyze the prescribed content (Cell biology, Life process, Biodiversity and conservation, Genetics, Ecology and Environment, Evolution, Biotechnology, Microbiology) from a pedagogical perspective (at least two lessons from any units of any grade). 11. Prepare and present a report on the critical analysis of the current assessment and evaluation system for Biology and Environmental Science at the secondary level in Nepal. 12. Prepare a report on Continuous and Comprehensive Evaluation (CCE) and Continuous Assessment System (CAS) in Biology and Environmental Education.
5	Unit 5: Biological Laboratories and Bioethics (8 periods)	13. Create an outline of a Biology and Environmental Science lab suitable for secondary level on chart paper. 14. Develop low-cost, improvised materials for Biology and Environmental Science practical activities, including models of an aquarium, vivarium, terrarium, and herbarium. 15. Collect plant and animal specimens and preserve them using appropriate preservation techniques. 16. Conduct a project on human impacts on the environment and biological systems. Collect videos or photos, prepare a report, and present it in class.

4. Instructional Techniques

The instructional techniques for this course are categorized into two groups. The first group includes general instructional techniques that apply to most units. The second group comprises specific instructional techniques tailored to particular units.

General Instructional Techniques

- Discussion
- Demonstration
- Presentation
- Inquiry
- Project work
- Cooperative and collaborative work
- Internet (web) surfing
- Group work

Specific Instructional Techniques

Units	Specific instructional techniques and multimedia presentation,
1	Use of internet resources, printed resources, exploration, demonstration, discussion.
2	Use of online resources, discussion, group discussion, group collaboration, analyzing, question answer, presentation and conducting seminar.
3	Project work, group discussion, brainstorming, problem solving, collaboration, exploration, demonstration, discussion, presentation.
4	Review of the resources, project work, exploration, demonstration, discussion.
5	Concept mapping, discussion, collaboration, report writing, exploration, demonstration, discussion, presentation

- The teachers shall decide the project work related to the course work.

5. Evaluation Criteria

Evaluation (Internal Assessment and External Assessment)

Nature of course	Internal Assessment	Semester Examination	Total Marks
Theory	25 Marks	40 Marks	65 Marks

Note: Students must pass separately in internal assessment and semester examination.

Internal Evaluation 25 Marks

Internal evaluation will be conducted by the course teacher based on following activities:

1.	Attendance and participation in learning activities (80% compulsory)	5 Marks
2.	First assignment (written assignment)	5 Marks
3.	Second assignment (report writing and presentation)	5 Marks
4.	Third assignment/ Term exam	10 Marks
	Total	25 Marks

Note: A score (3, 4 or 5) be provided to Prospective teachers based on the following criteria of attendance: 80-85%=3, 86-95%=4, 95% above=5)

First assignment/assessment can be quiz, home assignment etc. according to nature of course. Similarly, the second assignment/assessment might be project work, curriculum review, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and the third assignment will be mid-term exam.

External Evaluation (Final Examination) 40 Marks

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester. The marks distribution will be;

1. Objective questions (Multiple Choice Questions 10 x 1mark)	10 Marks
2. Subjective short questions (6 questions with 2 'OR 'questions x 5 marks)	30 Marks
Total	40 Marks

6. Recommended Books and Reading Materials

Aggarwal, D. D. (2007). *Modern methods of teaching biology. (2nd ed.).* New Delhi: Sarup and Sons. Retrieved from https://books.google.co.in/books?id=GpsYyrkWo0C&printsec=frontcover&dq=teaching biology&hl=en&sa=X&ei=xoo0VbLbCtCMuATr1oBo&redir_esc=y

Ahmad, J. (2011). *Teaching of Biological Sciences.* New Delhi, PHI Learning Pvt. Ltd **(Unit 1)**

Ahmad, S. (2007). Teacher's hand Book of Science. Anmol Publication Pvt. Ltd. **(Unit 2,3,5)**

Amos, S. & Boohan, R. (2002). *Aspects of teaching secondary science: Perspective on practice.* Routledge Taylor and Francis Group.

Bergmann, J. & Sams, A. (2012). Flip your classroom: Reach every student in every class every day. *International Society for Technology in Education.*

Bhatnagar, A.B. & Bhatnagar, S.S. (2004). *Teaching of Science.* Surya Publication.

Bishop, K. & Denley, P. (2007). Learning science teaching. Open University Press.

Bloom, B.S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc

Cantor, JA. (1997). *Experiential Learning in Higher Education: Linking Classroom and Community.* ASHEERIC Higher Education Report No. 7. Washington DC. The George Washington University, Graduate School of Education and Human Development.

Das, K. C. (1985). *Teaching of Science. (2nd ed.).* New Delhi: Sterling Publishers Pvt. Ltd.

Das, R. C. (1990). *Science Teaching in Schools.* Sterling Publications.

Davar, M. (2012). *Teaching of Science.* PHI Learning Private Limited.

Derry, SJ & Murphy, DA. 1986. Designing systems that train learning ability: from theory to practice. *Review of Educational Research.* Vol 56, number 1. Pp 1–39.

Erickson, L. (2012). *Concept-based teaching and learning.* IB Position Paper.

Gupta, S. K. (1989). *Teaching of Physical Sciences in Secondary Schools.* New Delhi: Sterling Publishers Pvt. Ltd.

Handbook of research on science education vol. II pp 120- 143

Harrision, C. (2021). *Teaching secondary biology* (3rd edition). Hodder education. www.hoddereducation.co.uk.

Kalra, R.M. & Gupta, V. (2012). *Teaching of science: A modern approach.* PHI Learning Private Limited.

Kiewra, K.A. (1985). Learning from a lecture: An investigation of notetaking, review and attendance at a lecture. *Human Learning.* Number 4. Pp 73–77.

Kulshreshtha, S. P. (2006). *Teaching of Biology.* Meerut: Surya Publications.

Lakshmi, G. B., & Rao, D. B. (2006). *Methods of teaching life sciences. (2nd ed.)*. New Delhi: Discovery Publishing House.

Lee, V.S. (2004). *Teaching and learning through inquiry: A guidebook for institutions and instructors.* USA: Stylus Publishing LLC.

McCombs, B.L. (1986). The role of the self-system in self-regulated learning. *Contemporary Educational Psychology.* Vol 11. Pp 314–332.

Ozuah, P.O. 2005. First, there was pedagogy and then came andragogy. *The Einstein Journal of Biology and Medicine.* Volume 21, number 2.

Panta, R. R. and Acharya, K. P (2021). *Teaching Environment: Methods and Perspectives.* Intellectuals Book Palace, Kirtipur Kathmandu Nepal.

Perkins, D. (2010). *Making Learning Whole.* USA: San Francisco, Jossey-Bass.

Rajasekar.(1995). *Method of Teaching Physical Sciences*. Hyderabad: Neelkamal Publishers.

Sadiq. S. & Zamir, S. (2014). Effectiveness of modular approach in teaching at University level. Journal of Education and Practice, 5(17), 104.

Saner, H, McCaffrey, D, Stecher, B, Klein, S & Bell, R. (1994). The effects of working in pairs in science performance assessments. *Educational Assessment.* Vol 2, number 4. Pp 325–338.

Sharma, R. C. (1982*). Modern science Teaching.* New Delhi: DhanpatRai Publications.

Sood, J. K. (2009). *Teaching of Science.* New Delhi: Prentice Hall of India

Thurber, W. A., &Colletta, A. (1964*). A Teaching Science in Today's Secondary Schools.* New Delhi: Prentice Hall of India.

Vaidya, N. (1971). *The Impact of Science Teaching.* New Delhi: Oxford and IBH Publishing House.

Vaidya, N. (1996). *Science Teaching for the 21st Century.* New Delhi: Deep & Deep Publications.

Watch videos: https://youtu.be/wcZH66rw6AY

Yadav, K. (2001). *Teaching of Life Science.* New Delhi: Anmol Publications.

Course Title: STEAM Education for Science Teachers

Course Code: Sc. Ed. 492
Level: PGDE
Semester: Second

Nature of Course: Theory + Practical
Credit Hours: 3 (2 Th + 1 Pr)
Teaching Hours: 64 (32 Th + 32 Pr)

---

1. Course Description

This course is designed for students specializing in PGDE in science education at Tribhuvan University as a subject of the second semester. STEAM (**Science, Technology, Engineering, Arts, and Mathematics**) is an educational approach now accompanied by integrating Arts in STEM (**STEM + Arts**). This course engages prospective teachers, professional science teachers, and those who become future science educationalists to develop the new approach skills of twenty-first century-based skillful science learning of younger generations, and, with the inclusion of the arts, student creativity is described as a key skill that must receive special attention. This course empowers multiple perspectives of multidisciplinary learning, interventions, and entrepreneurship, and it has the potential to develop student creativity and advocate sustainable development and 21st-century skills. The course focuses on developing the proficiency in the student-teachers to design teaching-learning situations while keeping in consideration the nature of science, learning needs, and context of all learners through a variety of approaches (Integration of ICT, Arts, Indigenous Knowledge (IK), Innovative, ecological (green) pedagogy and STEAM, critical reflective practices, etc.).

The course is intended to enable student teachers, teachers, and educators actively involved to design and organize learner-centered, activity-based, participatory engaged learning experiences through observation, inquiry, dialogue, discussion, experiments, problem-based, STEAM project-based, and place-based learning. The main goal of this course is to develop the efficiency of science teachers and the professional learning community of practice through design thinking, critical reflection, creativity, and invention. This course is divided into two parts: Theory and Practical. The theoretical part consists of different units related to STEAM Education which provide essential knowledge in the related fields. The major topics included in this course are the Introduction of STEAM education, the Contemporary aspect of STEAM education, digital skills needed to in STEAM-based science teacher, STEAM lesson development and implementation, and STEAM project development and implementation in science learning.

2. General Objectives

The objectives of this course are as follows:

- Gain insight into the meaning and nature of the STEAM approach for determining aims and strategies of science teaching- learning
- Explore the process of STEAM and its role in the teaching-learning situation
- Appreciate various approaches (Integration of ICT, Arts, Indigenous Knowledge (IK), Innovative, ecological (green) and STEAM practice, and critical reflective practices) of teaching-learning of science
- Use effectively different activities/experiments/laboratory experiences/ artistic works/ integrating approaches for science teaching- learning
- Explore different ways of creating learning situations considering the learning needs and context of the learner and the relevant concept based on real-world/ life problems
- Integrate science knowledge with other school subjects and another discipline (Technology, Engineering, Arts, and Mathematics) and develop (w)holistic learning tools, projects, and activities.
- Facilitate the development of scientific attitudes, creativity, critical thinking, reflection, and design thinking in prospective teachers.
- Construct appropriate STEAM assessment tools for evaluating science learning.
- Examine the different pedagogical issues in the context of science learning in our context

3. Specific Objectives and Contents

PART I: THEORY

Specific Objectives	Contents
• Introduce STEAM education and its approaches. • Explain the history of STEM and STEAM Education. • Relate science learning with engineering process and practice, technology, integration of arts, and mathematical habits. • Use innovative pedagogy in science teaching with suitable examples.	**Unit I: STEAM Education (6 Hours)** 1.1 Introduction of STEAM education and STEAM approach 1.2 Development of STEM and STEAM education 1.3 Concept of engineering process and practice, technology integration, arts integration, and mathematical habits. 1.4 STEAM education and sustainable development. 1.5 Innovative pedagogy and STEAM Education: playful learning, learning with a robot, drone-based learning, learning through wonder, and action learning.

Learning Engagement	
Activities	**Pedagogical Implications**
Course Facilitator's Role • To motivate learners to collect related journal articles, book chapter • Divide learners into different group • Provide time to read and discuss intra-group of student • Create a dialogic situation • Summarize the content **Prospective Teacher's Activities** • Discussed different papers in the various group • Collect main ideas and concept • Create the chart, table, concept map, mind map, tree, PowerPoint presentation, infographics, etc. • Share and discuss with inter-group • Critical reflection on the idea • Collect and further discussion • Conclude the content • Develop artistic materials for the overall concept and essay, etc.	• Encourage active participation in class discussions. Create a safe space where students feel comfortable expressing their ideas. • Teach effective communication skills, including active listening and respectful disagreement. • Assess participation as part of the overall learning process. • Integrate creative activities related to the subject matter. For example, students can create visual representations, write poems, or compose music. • Emphasize the process of artistic exploration rather than just the final product. • Discuss how artistic expression enhances understanding and critical thinking. • Foster a collaborative environment where students share their work and insights. • Use peer feedback sessions to promote constructive critique and improvement. • Discuss the value of diverse perspectives and how they enrich learning. • Teach metacognitive skills: encourage students to reflect on their learning process, identify strengths, and recognize areas for growth. • Incorporate reflective writing assignments or journal entries. • Discuss the impact of self-awareness on learning outcomes. • Help students connect the dots between different concepts and experiences.

	• Guide them in synthesizing information to form informed conclusions. • Discuss the implications of their conclusions in real-world contexts.
• Familiarize the 21st century skill development through STEAM approach • Perform the STEAM mindsets skillsets, and core competencies through role play and other activities. • Use basic steps of STEAM learner engagement ways. • Discuss the Critical thinking, reflection, and design thinking based on the STEAM approach • Transfer the *integration skill* in science teaching through STEM (*Science, Technology, Engineering, and Mathematics) and STEAM perspective.* • Prioritize alternative best practices in science teaching and the STEAM approach.	**Unit 2: Fundamental Skill of STEAM Approach (6 Hours)** 2.1. Twenty-first-century skill and STEAM approach 2.2. STEAM mindsets and skillsets, and core competencies 2.3. Basic steps of STEAM approach: Understand, Plan, Gather, Engage, and STEAM success: Evaluate and celebration. 2.4. Critical thinking, reflection, and design thinking and their basic steps. 2.5 Integration skill: Teaching Science through STEAM (Science, Technology, Engineering, Arts and Mathematics) approach
Learning Engagement	
Activities	**Pedagogical Implications**
Course Facilitator's Role • To motivate learners to collect related journal articles, book chapter • Divide learners into different group • Provide time to read and discuss intra-group of students • Create a dialogic situation • Summarize the content **Prospective Teacher's Activities** • Discussed different papers in the other group • Collect main ideas and concept • Create the chart, table, concept map, mind map, tree, PowerPoint presentation, infographics, etc. • Collect, share, and further discuss with inter-group	• Encourage active participation in class discussions. Create a safe space where students feel comfortable expressing their ideas. • Teach effective communication skills, including active listening and respectful disagreement. • Assess participation as part of the overall learning process. • Integrate creative activities related to the subject matter. For example, students can create visual representations, write poems, or compose music. • Emphasize the process of artistic exploration rather than just the final product.

• Conclude the content • Develop artistic and ICT-based materials for the overall concept.	• Discuss how artistic expression enhances understanding and critical thinking. • Foster a collaborative environment where students share their work and insights. • Use peer feedback sessions to promote constructive critique and improvement. • Discuss the value of diverse perspectives and how they enrich learning. • Teach metacognitive skills: encourage students to reflect on their learning process, identify strengths, and recognize areas for growth. • Incorporate reflective writing assignments or journal entries. • Discuss the impact of self-awareness on learning outcomes. • Help students connect the dots between different concepts and experiences. • Guide them in synthesizing information to form informed conclusions. • Discuss the implications of their conclusions in real-world contexts.
• Discuss the concept of digital skills and their use for science teaching. • Explore the different digital sources to teach science at the secondary level. • Design different teaching-learning activities by using Phet interaction simulation for different lessons. • Design different teaching-learning activities by using IQmol for chemistry lessons. • Use the different astronomy and astrophysics-related websites in our classroom practice or context. • Apply virtual reality, augmented reality, and artificial intelligence (AI) in secondary science lessons.	**Unit 3: Digital Skill for STEAM-Based Science Teaching (6 pds).** 3.1 Introduction of digital skills and some useful software for science teachers. 3.2 Phet interaction simulation in science lesson (Force and motion, Pressure, Heat, Chemical reaction) 3.3 Design different models and structures of hydrocarbon by using IQmol. 3.4 Design Universe teaching-learning activities through different websites (e.g. https://stars.chromeexperiments.com/ http://imagine.gsfc.nasa.gov/, http://starchild.gsfc.nasa.gov/, etc.)

	3.5 Use virtual reality, augmented reality, and artificial intelligence (AI) in science lessons.
Learning Engagement	
Activities	**Pedagogical Implications**
Course facilitator's role • Motivate learners to collect related digital skills, website names, software, videos, etc. • Divide learners into different group • Provide time to study and discuss intra-group of students. • Present sample activities or models in the classroom. • Engage learners in different activities by using collected materials. • Present Phet interaction simulation, IQmol, stars.chrome models, and other relevant software demos. • Create a dialogic situation **Prospective teacher's activities** • Discussed different ideas with the other group • Collect the main ideas and create charts, tables, concept maps, mind maps, trees, PowerPoint presentations, infographics, etc. of related activities. • Engage learners with Phet interaction simulation, IQmol, and stars. chrome, models, and other relevant software. • Explore ways to apply virtual reality, augmented reality, and artificial intelligence (AI) in secondary science lessons. • Design teaching learning activities based on virtual reality, augmented reality, and artificial intelligence (AI). • Critical reflection upon peer's design, activities ideas, and works.	• Provide opportunities for students to analyze, evaluate, and synthesize information, promoting higher-order thinking skills essential for success in academia and beyond. • Align the science lesson with principles of STEAM (Science, Technology, Engineering, Arts, and Mathematics). • Emphasize creativity, collaboration, and real-world applications. • Investigate different ways to engage learners. • Analyze the strengths, weaknesses, and adaptability to local needs. • Connect our science lesson with the digital world. • Teach decision-making skills by presenting complex scenarios and discussing trade-offs. • Develop digital proficiency by using software, and designing different activities and experiments. • Incorporate collaborative projects where students work in teams. • Teach effective communication skills, including active listening, clear articulation, and respectful feedback.

• Present the developed or created design and activity in class. • Collect feedback from peers, and improve it.	
• Discuss the Concept of the STEAM lesson and its development. • Describe the STEAM lesson planning tools and reflection tools. • Elaborate the science lesson and engineering process/ practices • Integrate the science lesson and technology. • Integrate the science lesson and arts. • Relate and discuss the science lesson and mathematical habits. • Integrate and discuss the science lesson and design thinking. • Integrate all concepts for the development of school-based lesson plan and their implementation. • Describe the techniques for the evaluation/ assessment in the STEAM lesson.	**Unit 4: STEAM Lesson Development and Implementation (7 Hours)** 4.1. Concept of STEAM lesson and its development. 4.2. STEAM lesson planning tools and reflection tool 4.3. Science lesson and engineering process/ practices 4.4. Science lesson and technology integration 4.5. Science lesson and arts integration 4.6. Science lesson and Mathematical habits 4.7. science lesson and design thinking 4.8. Integration of all concepts: development of school-level STEAM lesson (plan) and its implementation. 4.9. Evaluation/ assessment in STEAM lesson **(* Students must prepare a lesson plan based on secondary-level science lessons.)**
Learning Engagement	
Activities	**Pedagogical Implications**
Course facilitator's role • To motivate learners to collect related journal articles, book chapter • Divide learners into different group • Provide time to read and discuss intra-group of student • Create a dialogic situation • Engage learners to develop a STEAM-based unit/lesson plan. • Present samples or models of STEAM lessons/units **Prospective Teacher's Activities**	• Incorporate STEAM lessons through hands-on experiments, design challenges, and artistic elements to engage students. • Design activities that encourage divergent thinking, exploration, and originality. • Foster an environment where students feel comfortable taking risks and expressing their unique ideas. • Emphasize attention to STEAM lesson development through

• Discussed different papers in the different group • Collect main ideas and concept • Create the chart, table, concept map/mind map/ tree/PowerPoint/infographics, etc. • Share and discuss with inter-group • Critical reflection upon existing models of lesson/unit. • Imagine or create a model of a STEAM lesson/unit focusing on different steps (E.g. Model 1: investigation phase, design phase, realization phase, test phase, evaluation, and revision and implementation. Model 2: questioning, exploring, developing skills, communicating, and playing. Model 3: planning, implementation, observation, and reflection. Model 4: critical questioning, independent inquiry, innovation and creation, problem-solving and self-regulation, and development of model, etc.) • Compare STEAM-based lessons of different countries/projects/contexts by using different websites, blogs, and other online learning platforms. • Draw the conclusion • Develop STEAM lesson/ unit for school level in our context etc.	rigorous data analysis, precision in experiments, and thorough documentation. Teach decision-making skills by presenting complex scenarios and discussing trade-offs.
• Introduce the concept of STEAM project development and their implementation in science learning. • Explain the process of STEAM project planning and action. • Elaborate the ways of creative STEAM project development based on Lateral thinking, resourcefulness, discipline, curiosity, process not product • Explain the steps of STEAM project-based learning.	**Unit 5: STEAM Project Development and Its Implementation (7 Hours)** 5.1 Concept of STEAM project and its development. 5.2 STEAM project planning and action 5.3 Ways of creative STEAM project development: Lateral thinking, resourcefulness, discipline, curiosity, process, product (prototype). 5.4 Steps of STEAM project-based learning 5.4 Design STEAM project for secondary science learning (physics, chemistry, biology, environment, and astronomy) and its implementation.

• Design STEAM project-based learning in secondary science including physics, chemistry, biology, environment, and astronomy and their implementation. • Explore the challenges of STEAM project implementation and ways to tackle this problem.	5.8 Challenges of STEAM project implementation and their solutions.
Learning Engagement	
Activities	**Pedagogical Implications**
Course Facilitator's Role • To motivate learners to collect related journal articles, book chapter • Divide learners into different group • Provide time to read and discuss intra-group of students • Create a dialogic situation • Present samples or models of STEAM projects **Prospective Teacher's Activities** • Discussed different papers in the different group • Collect main ideas and concept • Create the chart, table, concept map/mind map/ tree/PowerPoint/infographics, etc. • Share and discuss with inter-group • Imagine or create a model of STEAM projects. • Develop STEAM project for school level etc. • Implementation of STEAM project and SWOC analysis of the project • Critical reflection and reform project • Reporting and documentation	• Align the curriculum with the STEAM (Science, Technology, Engineering, Arts, and Mathematics) project. • Integrate interdisciplinary projects that emphasize creativity, collaboration, and real-world applications with science • Investigate, develop, and implement curricula from different countries, projects, or contexts. • Analyze the local needs of STEAM projects and critically reflect on their strengths, weaknesses, and adaptability.

Note: *The figures in the parenthesis indicate the appropriate teaching hours for the respective units.*

4. Instructional Techniques

The instructional techniques for this course are divided into two groups. The first group consists of general instructional techniques applicable to most of the units. The second group consists of specific instructional techniques applicable to the particular units.

4.1 General Instructional Techniques

- Discussion and reflection
- Demonstration and Presentation
- Inquiry
- Project work, cooperative and collaborative work
- Internet (web) surfing
- Group work

5. Evaluation Criteria

5.1 Evaluation (Internal Assessment and External Assessment)

Nature of course	Internal Assessment	Semester Examination	Total Marks
Theory	25 Marks	40 Marks	65 Marks

Note: Students must pass separately in internal assessment and semester examination.

5.1.1 Internal Evaluation 25 Marks

Internal evaluation will be conducted by the course teacher based on the following activities:

1.	Attendance and Participation in Learning Activities	5 Marks
2.	First Assignment (Written Assignment)	5 Marks
3.	Second Assignment (Report Writing and Presentation)	5 Marks
4.	Third Assignment/ Term exam	10 Marks
	Total	25 Marks

Note: *The first assignment/assessment might be a book review /article review, quiz, home assignment, etc. according to the nature of the course. The second assignment/assessment might be project work, case study, seminar, survey/field study individual/group report writing, term*

paper based on secondary data or review of literature and documents, etc., and the third assignment will be a term exam.

5.1.2. External Evaluation (Final Examination) **40 Marks**

Examination Division, Office of the Dean, Faculty of Education will conduct the final examination at the end of the semester. The marks distribution will be

1. Objective Questions (Multiple Choice Questions)	10×1= 10 Marks
2. Subjective Short Questions (6 Questions with 2 Or)	6×5 = 30 Marks
Total	40 Marks

PART-II: PRACTICAL

1. General Objectives

The objectives of this course are to enable students to

- Critically analyze the issues of the existing science learning and explore problems and their remedial;
- Develop knowledge and skills in planning, designing, and implementing physical sciences;
- Develop skills in the integration of ICT, arts, Indigenous Knowledge (IK), and Innovation in science teaching (project work);
- Develop skills in the development and implementation of STEAM lessons, units, resource materials, and projects.

2. Contents

Student Activities/Contents	**48 Teaching Hours**
Unit 1: • Reviewing or critical reflection upon existing science learning and exploring problems and their remedial Students must submit a report of more than 1000 words with cited related literature (at least 10 corresponding literature)	5

Unit 2: • Integration of ICT, arts, Indigenous knowledge (IK), and innovation in science teaching (project work) (Develop project work individually or pair with different aspects such as ICT, arts, Indigenous Knowledge (IK), and Innovation)	8
Unit 3: • Digital Skills for STEAM-Based Science Teaching (Perform different activities based on Phet interaction simulation, IQmol, stars.chrome, and other relevant software used in science teaching)	10
Unit 4: • STEAM lesson plan development, implementation, reflection, and reform. (Develop STEAM-based lessons based on secondary science curriculum)	10
Unit 5: • Develop STEAM-project based on the secondary science curriculum in our context. • Implement, reflect, and reform the STEAM project. • Merge STEAM-project and develop resource material booklet, kits, newsletters, etc.	10
Finally, Development of a STEAM approach-based combined teaching/ learning manual (organization, idea, share, and construction)	5

3. Specific Instructional Techniques

- Internet surfing
- Develop manuscript by collaboration and discussion
- Workshops: Presentation, participatory activities

- Books and article review
- Field visit and virtual visit
- Guided and unguided discovery
- Preparation of charts, models, presentations slides, and reports.

5. Evaluation **35 Marks**

Nature of course	Internal Evaluation	External Evaluation	Total Marks
Practical	15 Marks	20 Marks	35 Marks

5.1 Internal Evaluation **15 Marks**

Marks distribution for practical internal evaluation will be as follows.

1.	Attendance	5Marks
2.	Students' portfolios (Record book and Books and article review etc.)	5Marks
3.	Participation, collaborative work, and construction of teaching-learning resources and planning for teaching-learning ***	5Marks
	Total	15Marks

5.2 External Evaluation **20 Marks**

Marks distribution for practical external evaluation will be as follows.

1.	Experiment/project work report and presentation/study reports	15Marks
2.	Viva-voce	5 Marks
	Total	20Marks

Note:

Students must pass both internal as well as external assessments of the practical examination

** Practical teaching hours are 3 times more than teaching hours of theory (3x 16 = 48 hours)*

***A group consists of 15 students and one teacher will be assigned for a group.*

****Construction of models, charts, teaching aids, STEAM lesson plan, unit plan, project etc.*

6. Recommended Books and Reading Materials

Al Darayseh, A. (2023). Acceptance of artificial intelligence in teaching science: Science teachers' perspective. *Computers and Education: Artificial Intelligence*, *4*, 100132. https://doi.org/10.1016/j.caeai.2023.100132

Bazler, J., & Van Sickle, M. (Eds.). (2017). *Cases on STEAM education in practice*. IGI Global.

Ge, X., Ifenthaler, D., & Spector, J. M. (Eds.). (2015). *Emerging technologies for STEAM education: Full STEAM ahead*. Springer.

Holbrook, J., Rannikmäe, M., & Soobard, R. (2020). STEAM Education—A transdisciplinary teaching and learning approach. *Science education in theory and practice: An introductory guide to learning theory*, 465-477.

Khine, M., & Areepattamannil, S. (2019). *Steam Education*. Springer. (All lessons)

Madden, M. E., Baxter, M., Beauchamp, H., Bouchard, K., Habermas, D., Huff, M., ... & Plague, G. (2013). Rethinking STEM education: An interdisciplinary STEAM curriculum. *Procedia Computer Science*, *20*, 541-546.

Martinez, J. E. (2017). *The search for method in STEAM education* (pp. 111-125). Springer International Publishing.

Taylor, P. C. (2016). Why is a STEAM curriculum perspective crucial to the 21st century? https://research.acer.edu.au/cgi/viewcontent.cgi?article=1299&context=research_conference

Thapaliya, P. (2023). A Praxis/future-driven Inclusive Science Learning Through STEAM-based Design Thinking Project. *Innovative Research Journal*, *3*(2), 1-10.

Tsichouridis, C., Batsila, M., Vavougios, D., & Ioannidis, G. (2020). Virtual and augmented reality in science teaching and learning. In *The Impact of the 4th Industrial Revolution on Engineering Education: Proceedings of the 22nd International Conference on Interactive Collaborative Learning (ICL2019)–Volume 1 22* (pp. 193-205). https://doi.org/10.1007/978-3-030-40274-7_20

Hawari, A. D. M., & Noor, A. I. M. (2020). Project-based learning pedagogical design in STEAM art education. *Asian Journal of University Education*, *16*(3), 102-111.

Mengmeng, Z., Xiantong, Y., & Xinghua, W. (2019). Construction of STEAM curriculum model and Case Design in kindergarten. *American Journal of Educational Research*, *7*(7), 485-490.

Quigley, C. F., Herro, D., King, E., & Plank, H. (2020). STEAM designed and enacted: Understanding the process of design and implementation of STEAM curriculum in an elementary school. *Journal of Science Education and Technology*, *29*, 499-518.

Vicente, F. R., Zapatera Llinares, A., & Montes Sanchez, N. (2021). Curriculum analysis and design, implementation, and validation of a STEAM project through educational robotics in primary education. *Computer Applications in Engineering Education*, *29*(1), 160-174.

Link: http://iqmol.org/downloads/IQmolUserGuide.pdf

(Note: These Reference materials provide just ideas only but learners must connect these ideas with Nepali science education and learning. The practical work is your pure creative work rather than copying, hence they (reference materials) are not practical books like physical science however they may help us to design the STEAM, lesson, and project)

पाठ्यक्रम शीर्षक: नेपाली भाषाशिक्षण - २

पाठ्यांश : नेपा. शि. ४९१ | पाठ्यांशको प्रकृति : सैद्धान्तिक + प्रयोगात्मक

तह : अधिस्नातक शिक्षा (PGDE) | क्रे.आ. : ३ (२ सैद्धान्तिक + १ प्रयोगात्मक)

सेमेस्टर : दोस्रो | जम्मा पाठघन्टी: ६४ (३२ सै + ३२ प्र)

---

१. पाठ्यांश परिचय

प्रस्तुत पाठ्यांश नेपाली मूल विषयमा स्नातक तह उत्तीर्ण गरी त्रिभुवन विश्वविद्यालय शिक्षाशास्त्र सङ्कायअन्तर्गत सेमेस्टर प्रणालीमा आधारित अधिस्नातक (पिजिडिई) तहको नेपाली शिक्षा विषयमा विशिष्टीकरण गर्न चाहने विद्यार्थीहरूका लागि तयार पारिएको हो । यसमा नेपाली भाषाशिक्षण, भाषिक सिपशिक्षण, भाषिक विधाशिक्षण एवम् भाषिक परीक्षण र मूल्याङ्कनजस्ता पाठ्यवस्तु राखिएका छन् । यसबाट अधिस्नातकका विद्यार्थीहरूले विविध सन्दर्भमा भाषिक सिपशिक्षण, विधाशिक्षण, भाषिक परीक्षण एवम् मूल्याङ्कनसम्बन्धी सैद्धान्तिक ज्ञानका आधारमा आधारभूत तहमा शिक्षण कला आर्जन गर्ने अपेक्षा गरिएको छ ।

२. साधारण उद्देश्य

यस पाठ्यांशको अध्ययनपछि विद्यार्थीहरू निम्नलिखित उद्देश्य हासिल गर्न सक्षम हुने छन् :

- भाषाशिक्षणका प्रमुख मान्यता व्याख्या गर्न,
- विविध सन्दर्भमा नेपाली भाषाशिक्षणको वर्तमान अवस्था केलाउन,
- भाषिक जनगणनाका आधारमा नेपालको द्विभाषिक तथा बहुभाषिक परिवेश चित्रण गर्न,
- नेपाली भाषाका सुनाइ, बोलाइ, उच्चारण, पढाइ, लेखाइ, वर्णविन्यास, वाक्यरचना, शब्दभण्डार, व्याकरण शिक्षण प्रक्रिया वर्णन गर्न,
- विद्यालय तहका पाठ्यपुस्तकमा समाविष्ट विभिन्न विधाशिक्षण प्रक्रिया वर्णन गर्न,
- भाषिक परीक्षणका साधनको रूपरेखा तयार गर्न र
- विभिन्न तहका प्रश्ननिर्माण, परीक्षा, अङ्कन र विश्लेषणको अभ्यास गर्न ।

३. एकाइगत विवरण

एकाइ एक : नेपाली भाषाशिक्षणको परिचय - ८

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ५	प्रायोगिक ३
• भाषाशिक्षणको आवश्यकता पुष्टि गर्न, • भाषाशिक्षणका प्रमुख मान्यता व्याख्या गर्न र निर्धारित मान्यताका आधारमा शिक्षण गर्न, • नेपालको भाषिक तथ्याङ्कका आधारमा बहुभाषिक स्थिति केलाउन, • पहिलो र दोस्रो भाषाका रूपमा नेपाली सिकाइको स्वरूप बताई शिक्षण गर्न, • पहिलो र दोस्रो भाषाका रूपमा नेपाली शिक्षणको वर्तमान अवस्था पहिचान गरी तदनुरूप शिक्षण गर्न ।	१. भाषाशिक्षणको परिचय र आवश्यकता २. भाषाशिक्षणका प्रमुख मान्यता ३. पहिलो भाषाका रूपमा नेपाली शिक्षणको वर्तमान अवस्था ४.दोस्रो भाषाका रूपमा नेपाली शिक्षणको स्वरूप	१ नेपालको भाषिक जनगणना र बहुभाषिक स्थिति २. नेपाली भाषाशिक्षणका समस्या र समाधानका उपाय

कार्यकलाप

१. भाषाशिक्षणको परिचय र आवश्यकता सम्बन्धमा सन्दर्भ सामग्रीसहित विद्यार्थीसँग अन्तर्क्रिया र छलफल गर्ने,
२. समूहगत रूपमा विद्यार्थीलाई भाषाशिक्षणका प्रमुख मान्यतामा केन्द्रित भई छलफल गर्न सहजीकरण गर्ने,
३. विद्यार्थीलाई नेपालको भाषिक जनगणना र बहुभाषिक स्थितिमा आधारित भई समूहगत परियोजना कार्य गर्न उत्प्रेरित गर्ने,
४. समूहगत आधारमा विद्यार्थीलाई पहिलो तथा दोस्रो भाषाशिक्षण सिकाइका प्रमुख विशेषता र प्रकृतिमा आधारित बुँदाटिपोट गर्न लगाउने र
५. समूहगत रूपमा विद्यार्थीलाई नेपाली भाषाशिक्षणका समस्या पहिचान गर्न लगाई समाधानका उपायसहित अध्ययनपत्र तयार गर्न लगाउने ।

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ४	प्रायोगिक ४
• सुनाइ शिक्षणको आवश्यकता बताउन, • सुनाइ शिक्षणका कार्यलापका आधारमा सुनाइ सिपको अभ्यास गर्न, • बोलाइ शिक्षणको आवश्यकता बताउन, • बोलाइ शिक्षणका कार्यकलाप वर्णन गरी तदनुरूप बोलाइ सिपको अभ्यास गर्न, • वक्तृत्व शिक्षणका तरिका उल्लेख गरी तदनुरूप शिक्षण गर्न, • उच्चारण शिक्षणको आवश्यकता औँल्याउन, • उच्चारणगत त्रुटिका प्रमुख क्षेत्र पहिल्याउन र • उच्चारण शिक्षणका कार्यकलाप उल्लेख गरी तदनुरूप शिक्षण गर्न	१. सुनाइ शिक्षणको आवश्यकता २. बोलाइ शिक्षणको आवश्यकता ३. वक्तृत्व शिक्षण तरिका ४. उच्चारण शिक्षणको आवश्यकता र कार्यकलाप	१. सुनाइ शिक्षणका कार्यकलाप २. बोलाइ शिक्षणका कार्यकलाप ३. उच्चारणमा पाइने प्रमुख त्रुटिहरू

कार्यकलाप

१. सन्दर्भ सामग्रीका आधारमा विद्यार्थीलाई सुनाइ शिक्षणको आवश्यकता पुष्टि गरी तदनुरूप शिक्षण कार्यकलापका विषयमा छलफल गराउने,
२. सन्दर्भ सामग्रीका आधारमा विद्यार्थीलाई बोलाइ शिक्षणको आवश्यकता पुष्टि गर्न लगाई शिक्षण कार्यकलाप प्रस्तुत गर्न लगाउने,
३. विद्यार्थीलाई वक्तृत्व शिक्षण तरिका उल्लेख गर्न लगाई केही विद्यार्थीलाई समसामयिक विषयमा वक्तृत्वको अभ्यासमा संलग्न गराउने,
४. सन्दर्भ सामग्रीका आधारमा विद्यार्थीलाई उच्चारण शिक्षणको आवश्यकता पुष्टि गर्न लगाई शिक्षण तरिकाका विषयमा छलफल गराउने र

५. आधारभूत तहका विद्यार्थीलाई नेपाली भाषाको उच्चारणमा देखापर्ने त्रुटिका प्रमुख क्षेत्र पहिचानका लागि प्रायोगिक कार्य दिने ।

एकाइ तीन : पढाइ र लेखाइ शिक्षण ८

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ४	प्रायोगिक ४
• पठनकला शिक्षणका कार्यकलाप अनुरूप पढाइ सिपको शिक्षण गर्न, • पठनबोध शिक्षणका प्रयोजन र कार्यकलाप वर्णन गरी तदनुरूप शिक्षण गर्न, • लेखाइ शिक्षणको आवश्यकता पुष्टि गरी निर्देशनात्मक, स्वतन्त्र, व्यावहारिक तथा सिर्जनात्मक लेखनको अभ्यास गर्न र • लेखाइ शिक्षणका कार्यकलाप वर्णन गरी लेखाइ सिपको शिक्षण गर्न ।	१. पठनकला शिक्षणको आवश्यकता २. पठनबोध शिक्षणको आवश्यकता ३. लेखाइ शिक्षणको आवश्यकता ४.निर्देशनात्मक, स्वतन्त्र, व्यावहारिक र सिर्जनात्मक लेखन	१. पठनकला शिक्षणका कार्यकलाप २. पठनबोध शिक्षणका कार्यकलाप ३. लेखाइ शिक्षणका कार्यकलाप

कार्यकलाप

१. विद्यार्थीलाई पठनकला र पठनबोध शिक्षणको प्रयोजनबारे छलफल गर्न लगाउने,
२. विद्यार्थीलाई पठनकला र पठनबोध शिक्षणका कार्यकलाप प्रस्तुत गर्न लगाउने र प्रतिनिधि विद्यार्थीलाई अभ्यासमा संलग्न गराउने,
३. स्रोतसामग्रीका आधारमा विद्यार्थीलाई लेखाइ सिप शिक्षणको आवश्यकता पुष्टि गर्न लगाई तहगत दृष्टिले शिक्षण कार्यकलाप प्रस्तुत गर्न लगाउने र
४. निर्देशनात्मक, स्वतन्त्र, व्यावहारिक र सिर्जनात्मक लेखनसम्बन्धी छलफल गरी तत् तत् लेखन अभ्यासका लागि प्रत्येक विद्यार्थीलाई प्रायोगिक कार्य दिने ।

एकाइ चार : शब्दभण्डार र भाषिक संरचना शिक्षण- ८

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ४	प्रायोगिक ४

• शब्दभण्डार शिक्षणको महत्त्व स्पष्ट पार्न, • शब्दार्थ र शब्दभण्डार शिक्षणका विविध तरिका बताउन, • वर्णविन्यासको प्रयोजनका साथै यसका कार्यकलाप शिक्षणका तरिका उल्लेख गर्न, • वाक्यरचना शिक्षणको आवश्यकता पुष्टि गरी सम्बद्ध क्षेत्रका त्रुटि पहिल्याउन, • वाक्यरचना शिक्षणका तरिका उल्लेख गरी तदनुरूप शिक्षण गर्न, • व्याकरण शिक्षणको आवश्यकता बताउन, • व्याकरण शिक्षणका निर्धारित विधिका विशेषता औल्याई तदनुरूप व्याकरण शिक्षणको अभ्यास गर्न, • व्याकरण शिक्षणका विभिन्न पक्षका आधारमा अनुच्छेद रचना गर्न ।	१. शब्दभण्डार शिक्षणको महत्त्व २. वर्णविन्यास शिक्षणको प्रयोजन ३. वाक्यरचना शिक्षणको आवश्यकता ४. वाक्यरचना शिक्षणको तरिका ५. व्याकरण शिक्षणको आवश्यकता ६. व्याकरण शिक्षण विधिका विशेषता ७. रचनामुखी व्याकरण शिक्षण	१. शब्दार्थ तथा शब्दभण्डार शिक्षणका तरिका २. वर्णविन्यास शिक्षणका कार्यकलाप ३. वाक्यरचना त्रुटिका प्रमुख क्षेत्र र समाधानका उपाय ४ व्याकरण शिक्षण विधिको प्रयोग निगमन विधि, आगमन विधि, भाषापाठ्यपुस्तक विधि, प्रत्यक्ष विधि

कार्यकलाप

१. शब्दभण्डार शिक्षणको महत्त्व र शिक्षण तरिकामा विद्यार्थीलाई समूहगत रूपमा छलफल गराउने,
२. स्रोतसामग्रीका आधारमा वर्णविन्यास शिक्षणका कार्यकलापबारे विद्यार्थीलाई समूहगत छलफल गराई निष्कर्ष कक्षामा प्रस्तुत गर्न लगाउने,
३. विद्यार्थीलाई स्रोतसामग्रीबाट वाक्यरचना त्रुटिका प्रमुख क्षेत्र खोज्न लगाई वैयक्तिक रूपमा समस्या समाधानका लागि परियोजना कार्य गर्न लगाउने,
४. व्याकरण शिक्षणका निर्धारित विधिका विशेषता र शिक्षण तरिकासम्बन्धी परस्पर छलफल गराई विद्यार्थीलाई तदनुरूप अभ्यास गर्न उत्प्रेरित गर्ने र
५. विद्यार्थीलाई व्याकरणका विविध पक्ष प्रयोग गरी रचना गरिएका अनुच्छेद कक्षामा प्रस्तुत गर्न लगाउने र पृष्ठपोषण दिने ।

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ७	प्रायोगिक ७
• विधाशिक्षणको आवश्यकता औंल्याउन, • आधारभूत तहका भाषा पाठ्यपुस्तकमा समाविष्ट कथा, कविता, निबन्ध-प्रबन्ध, रूपक (संवाद, वादविवाद, वक्तृता, मनोवाद, एकाङ्की), जीवनी, चिठी, दैनिकी विधा शिक्षणको प्रयोजन र प्रक्रियाका आधारमा शिक्षण गर्न, • भाषाशिक्षणमा विधाहरूको उपयोगिता देखाउन ।	१ विधाशिक्षणको आवश्यकता २. आधारभूत तहका भाषा पाठ्यपुस्तकमा समाविष्ट विधाशिक्षणको प्रयोजन : कथा, कविता, निबन्ध-प्रबन्ध, रूपक (संवाद, वादविवाद, मनोवाद, वक्तृता, एकाङ्की), जीवनी, चिठी, दैनिकी	१. आधारभूत तहका भाषा पाठ्यपुस्तकमा समाविष्ट विधाशिक्षण प्रक्रिया : कथा, कविता, निबन्ध-प्रबन्ध, रूपक (संवाद, वादविवाद, मनोवाद, वक्तृता, एकाङ्की), जीवनी, चिठी, दैनिकी २. भाषा शिक्षणमा विधाहरूको उपयोग

कार्यकलाप

१ सन्दर्भ सामग्रीका आधारमा विधा शिक्षणको आवश्यकता पुष्टि गर्न लगाउने,
२. आधारभूत तहको भाषा पाठ्यपुस्तकमा समाविष्ट कथा, कविता, निबन्ध-प्रबन्ध, रूपक (संवाद, वादविवाद, वक्तृता, मनोवाद, एकाङ्की), जीवनी, चिठी, दैनिकी जस्ता विधाहरूको शिक्षण प्रक्रियाका बारेमा विद्यार्थीबिच परस्पर छलफल गर्ने,
३. आधारभूत तहका भाषा पाठ्यपुस्तकमा समाविष्ट विधाशिक्षणको प्रक्रियाअनुरूप विद्यार्थी प्रतिनिधिलाई नमुनाका रूपमा फरक फरक विधाका पाठ शिक्षण गर्न लगाउने र
४. भाषाशिक्षणमा विधाहरूको उपयोग सम्बन्धमा विद्यार्थीलाई समूहगत रूपमा परियोजना कार्य गर्न लगाउने
(कुनै समूहलाई एउटा विधा र अर्को समूहलाई अर्को विधाको उपयोगितामा केन्द्रित गर्ने) ।

एकाइ छ : भाषिक परीक्षण र मूल्याङ्कन - १८

विशिष्ट उद्देश्य	पाठ्यविषय	
	सैद्धान्तिक ८	प्रायोगिक १०
• भाषिक परीक्षणको परिचय दिन, • भाषिक मूल्याङ्कनका निर्धारित स्वरूपको व्याख्या गर्न, • भाषिक परीक्षणका साधनको निर्माण	१. भाषिक परीक्षणको परिचय २. भाषिक मूल्याङ्कनको स्वरूप : निर्माणात्मक र	१. विशिष्टीकरण तालिकाको निर्माण र अभ्यास २.भाषिक परीक्षणका साधनको

र अभ्यास गर्न, • विशिष्टीकरण तालिकाको ढाँचाअनुसार कुनै कक्षा विशेषका लागि विशिष्टीकरण तालिका निर्माण गर्न, • विशिष्टीकरण तालिकाका आधारमा प्रश्न तयार गर्न, • भाषिक प्रश्नका प्रकार र प्रकृतिको रूपरेखा बताउन, • उत्तरपुस्तिका परीक्षण, नतिजा निर्धारण र मूल्याङ्कन गर्न, • श्रेणी निर्धारण (ग्रेडिङ) प्रणालीको चर्चा गर्न ।	निर्णयात्मक, एकीकृत र पृथकीकृत ३ निरन्तर मूल्याङ्कन ४.नतिजा विश्लेषण र मूल्याङ्कन	निर्माण र अभ्यास : लिखित परीक्षा-विषयगत र वस्तुगत प्रश्नको निर्माण ३. स्तरअनुरूप प्रश्ननिर्माण र अभ्यास : ज्ञान-बोध, प्रयोग, उच्च दक्षता ४.प्रश्न विश्लेषण र मानकीकरण ५. उत्तरपुस्तिका परीक्षण र अङ्कन प्रक्रिया ६. श्रेणी निर्धारण (ग्रेडिङ) प्रणाली

कार्यकलाप

१. विद्यार्थीसँगको छलफलका आधारमा भाषिक परीक्षण र मूल्याङ्कनको परिचय दिने,
२. विशिष्टीकरण तालिकाअनुरूप आधारभूत तहका नेपाली पाठ्यपुस्तकमा केन्द्रित भएर सबै किसिम र तहका प्रश्नपत्र निर्माणको अभ्यास गर्न लगाउने,
३. प्रतिनिधि विद्यार्थीले बनाएका प्रश्नपत्रका नमुना कक्षामा प्रस्तुत गर्न लगाउने र ती प्रश्नपत्र ज्ञान-बोध, प्रयोग र उच्च दक्षताका दृष्टिले स्तरमापनका लागि विद्यार्थीलाई उत्प्रेरित गर्ने र अन्त्यमा मानकीकरणका लागि निर्देशन दिने,
४. आधारभूत तहको कुनै कक्षाको ग्रिड अनुसार एक थान प्रश्नपत्र बनाएर परीक्षा लिन लगाउने, अङ्कन गर्न लगाउने र प्रश्नपत्रको विश्लेषण गर्न लगाउने र
६. श्रेणी निर्धारण (ग्रेडिङ) प्रणालीका सम्बन्धमा छलफल गरी विद्यार्थीलाई लिइएको परीक्षाको नतिजालाई श्रेणी निर्धारण गर्न लगाउने ।

४ शिक्षण प्रक्रिया

यस पाठ्यांशका प्रत्येक एकाइमा आवश्यकतानुसार सम्बन्धित विषयवस्तुको प्रस्तुति, व्याख्यान, छलफल, प्रश्नोत्तर गराई विद्यार्थीलाई तत्सम्बन्धी अभ्यास गर्न लगाइने छ ।

प्रत्येक एकाइमा उल्लेख गरेबमोजिम विद्यार्थीहरूलाई प्रायोगिक कार्य गराइने छ । त्यस अतिरिक्त आवश्यक भएमा स्थानीय परिवेशअनुसार शिक्षकले थप कार्य पनि गराउन सक्ने छन् । विद्यार्थीलाई नियमित प्रायोगिक कार्यका साथै दुईओटा असाइनमेन्ट दिइने छ ।

५. मूल्याङ्कन प्रक्रिया

यस पाठ्यांशको मूल्याङ्कन ढाँचा यसप्रकार हुने छ :

आन्तरिक		बाह्य		जम्मा
सैद्धान्तिक	प्रयोगात्मक	सैद्धान्तिक	प्रयोगात्मक	
२५	१५	४०	२०	
जम्मा : ४०		जम्मा : ६०		१००

५.१ आन्तरिक मूल्याङ्कन प्रक्रिया

यस पाठ्यांशका लागि तपसिल बमोजिम आन्तरिक मूल्याङ्कन गरिने छ :

विवरण	अङ्क	स्पष्टीकरण
हाजिरी र सहभागिता	५	
पहिलो प्रायोगिक कार्य	५	पहिलो र दोस्रो एकाइबाट एउटा प्रायोगिक कार्य दिने
दोस्रा प्रायोगिक कार्य	५	तेस्रो र चौथो एकाइबाट एउटा प्रायोगिक कार्य दिने
लिखित परीक्षा	१०	बाह्य परीक्षाको ढाँचामा लिखित परीक्षा लिने
जम्मा	२५	

५.२ बाह्य मूल्याङ्कन अन्तर्गत प्रयोगात्मक परीक्षा

यस पाठ्यांशका लागि तपसिल बमोजिम बाह्य मूल्याङ्कन अन्तर्गत प्रयोगात्मक परीक्षा लिइने छ :

विवरण	प्रयोगात्मक		जम्मा
	आन्तरिक	बाह्य	
प्रश्नपत्र निर्माण/भाषिक जनगणनाका आधारमा कुनै स्थान विशेषको भाषिक परिवेश- त्यस ठाउँमा रहेको विद्यालयको कुनै एक कक्षाको भाषिक अवस्था	५	५	१०

उत्तर पुस्तिका अङ्कन/निर्धारित कक्षाका विद्यार्थीहरूको भाषिक अभ्यास	५	५	१०
प्रश्नविश्लेषण/प्रतिवेदनको ढाँचा	५	५	१०
मौखिक		५	५
	१५	२०	३५

५.३ बाह्य मूल्याङ्कन अन्तर्गत डिन कार्यालयले लिने लिखित परीक्षा

यस पाठ्यांशको बाह्य मूल्याङ्कन अन्तर्गत डिन कार्यालयले लिने लिखित परीक्षा यसप्रकार हुने छ :

विवरण	प्रश्न सङ्ख्या	प्रति प्रश्न अङ्क	जम्मा अङ्क	स्पष्टीकरण
बहुवैकल्पिक प्रश्न	१०	१	१०	
सङ्क्षिप्त उत्तरात्मक प्रश्न	६ (दुई ओटा अथवा सहित)	५	३०	
जम्मा			४०	

- आन्तरिक र बाह्य दुवै किसिमको प्रयोगात्मक कार्य निर्धारित पाठ्यांशबाट तोकिएको शीर्षक र ढाँचामा सम्पन्न गर्नुपर्ने छ । यसका लागि विषय शिक्षकले प्रत्येक विद्यार्थीलाई छुट्टाछुट्टै शीर्षक दिनुपर्ने हुन्छ ।
- प्रयोगात्मक आन्तरिक र प्रयोगात्मक बाह्य मूल्याङ्कन दुवैका लागि विभागीय प्रमुख वा क्याम्पस प्रमुखद्वारा विषय शिक्षक, विषय विशेषज्ञ र विषयगत विभागीय प्रमुख रहने गरी मूल्याङ्कन समिति गठन गरिने छ ।

६ सिफारिस गरिएका पाठ्यपुस्तक तथा सन्दर्भसामग्री

अधिकारी, हेमाङ्गराज (२०६७), *नेपाली भाषाशिक्षण*, काठमाडौँ : विद्यार्थी पुस्तक भण्डार ।

अधिकारी, हेमाङ्गराज (२०६७), *भाषाशिक्षण : केही परिप्रेक्ष्य तथा पद्धति*, काठमाडौँ: विद्यार्थी पुस्तक भण्डार ।

अधिकारी, हेमाङ्गराज (२०७४), *सामाजिक र प्रायोगिक भाषाविज्ञान* , काठमाडौँ : रत्न पुस्तक भण्डार ।

खनिया, बुद्धराज (२०७६), *नेपाली भाषा शिक्षणको परिचय*, काठमाडौँ : जुपिटर प्रिन्टिङ एन्ड पब्लिसिङ हाउस प्रा.लि. ।

खनिया, बुद्धराज (२०८०), *नेपाली भाषा शिक्षण,* काठमाडौँ : जुपिटर प्रिन्टिङ एन्ड पब्लिसिङ हाउस प्रा.लि. ।

घिमिरे, दिनेश (२०७७), *भाषिक विधा शिक्षण : प्रयोजन र प्रक्रिया,* काठमाडौँ : इन्टेलेक्च्युअल्ज बुक प्यालेस ।

ढकाल, शान्तिप्रसाद (२०७४), *नेपाली भाषाशिक्षण : परिचय र प्रयोग,* काठमाडौँ : पिनाकल पब्लिकेसन ।

ढुङ्गेल, भोजराज र दाहाल, दुर्गाप्रसाद (२०७६), *नेपाली भाषाशिक्षण,* काठमाडौँ : एम. के. पब्लिसर्स ।

नेपाल राष्ट्रिय शिक्षा आयोग (सन् १९५५), *नेपालमा शिक्षा,* काठमाडौँ : कलेज अफ एजुकेसन ।

पोखरेल, केशवराज र काफ्ले, उमेश (२०७५) नेपाली भाषाशिक्षण, काठमाडौँ: क्याम्ब्रिज पब्लिकेसन

पौडेल, माधवप्रसाद (२०७०), *भाषिक परीक्षण,* काठमाडौँ : विद्यार्थी पुस्तक प्रकाशन ।

पौडेल, माधवप्रसाद (२०७०), *भाषिक मूल्याङ्कन,* काठमाडौँ : विद्यार्थी पुस्तक भण्डार ।

पौडेल, माधवप्रसाद (२०७२), *भाषिक विधाशिक्षण,* काठमाडौँ : विद्यार्थी पुस्तक भण्डार ।

भट्टराई, रामप्रसाद (२०७४), *नेपाली भाषाशिक्षण,* काठमाडौँ : शुभकामना प्रकाशन ।

राष्ट्रिय भाषा नीति सुझाव आयोग (२०५०), *राष्ट्रिय भाषा नीति सुझाब आयोगको प्रतिवेदन,* काठमाडौँ : प्रज्ञा भवन ।

लम्साल, रामचन्द्र र अन्य (२०६७), *नेपाली भाषाशिक्षण,* काठमाडौँ : भुँडी पुराण प्रकाशन ।

लम्साल, रामचन्द्र (२०७७), *भाषिक विधाशिक्षण,* काठमाडौँ : सनलाइट पब्लिकेसन ।

शर्मा, केदारप्रसाद र पौडेल, माधवप्रसाद (२०७४), *नेपाली भाषाशिक्षणका सन्दर्भहरू,* काठमाडौँ : विद्यार्थी पुस्तक भण्डार ।

शर्मा, गोपीनाथ (२०४३), *नेपालमा शिक्षाको इतिहास,* काठमाडौँ : हेम कुमारी शर्मा ।

श्रीवास्तव, रवीन्द्रनाथ (सन् १९९६), *भाषा शिक्षण,* नई दिल्ली : दि मैकमिलन कम्पनी अफ इन्डिया लिमिटेड ।

श्रेष्ठ, चन्द्रबहादुर र रंजितकार, किरणराम (२०७६), *पाठ्यक्रम र मूल्याङ्कन,* काठमाडौँ : भुँडीपराण प्रकाशन ।

Block, D. (2003). *The social turn in second language acquisition*. Edinburgh University Press.

Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). Pearson.

Central Bureau of Statistics. (2022). *National Population and Housing Census 2021: National Report*. National Planning Commission.

Giri, R.A. (2003). Language testing: Then and now, *Journal of NELTA,* Vol. 8, No. 1-2, pp. 49-67.

Green A. (2014). *Expressing language assessment and testing,* Routledge.

Khaniya, T.R. (2013). *Examination for enhanced learning,* Educational and developmental service centre Pvt. Ltd.

Mackey, A. (2013). *Conversational interaction in second language acquisition-Oxford applied linguistics*. Oxford University Press.

Myles, F. (2013). *Second language acquisition research, Its significance for learning and teaching issues.* Sage.

National Statistics Office. (2023). National report on caste/ethnicity, language & religion (Individual table): Table-2: Population by mother tongue and sex.https://censusnepal.cbs.gov.np/results/np/downloads/caste-ethnicity

National Statistics Office. (2023). National report on caste/ethnicity, language & religion (Individual table): Table-3: Population by second language and sex.https://censusnepal.cbs.gov.np/results/np/downloads/caste-ethnicity

National Statistics Office. (2023). National report on caste/ethnicity, language & religion (Individual table): Table-4: Population by ancestor's language and sex.https://censusnepal.cbs.gov.np/results/np/downloads/caste-ethnicity

Nunan, D. (1998). *Language teaching methodology*. Prentice hall.

Peny, R. (1996). A course in English language teaching. Cambridge University Press.

Richards, J., & Rhodes, T. (1985). *Approaches and methods in language teaching.* Cambridge university press.

Hughes, A. (2020). *Testing for language teachers.* Cambridge university press.

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

Course Title: Teaching Information and Communication Technology-II

Course Code: ICT. Ed. 491 | **Nature of Course**: Theory + Practical

Level: PGDE | **Credit Hours:** 3 (2Th + 1 Pr)

Semester: Second | **Teaching Hours**: 64 (32 Th + 32 Pr)

1. Course Description

This course is to impart knowledge and skills to effectively integrate information and communication technology (ICT) into their teaching and learning practices. The aim of the course is to impart knowledge of learning resources design, learning activities design, assessment and evaluation methods and digital classroom management techniques. It also provides basic idea of teaching different computer programming terminologies like control structures, array, file handling, database handling and object-oriented concept and apply the concepts in action.

2. General Objectives of the Course

Following are the general objective of this course:

- To develop skills in design of learning resources like multimedia, interactive, web-based resources and also get insights on integration of technology in designing resources
- To make familiarize with teaching programming concepts like array handling, file handling, database handling and object-oriented concept
- To enhance the skill in identifying the different techniques to design learning activities
- To facilitate the student to make decisions in applying digital classroom management techniques
- To acquaintance the student with different assessment and evaluation techniques

3. Specific Objectives and Contents

Objectives	Content
• Create text-based resources • Utilize interactive learning platforms • Design simulations and web-based	**Unit 1: Learning Resources Design (6 Hours)** 1.1 Text Based Resources

resources to assist teaching and learning • Make use of video creator tools like Powtoon, Animoto, and VideoScribe to design learning resources	1.2 Multimedia Resources 1.3 Interactive Learning Platform 1.4 Simulation and Web Based Resources 1.5 Resources with Technology Integration - SAMR model
• Design classroom activities for computer teaching like lecture and presentation, code snippets, hands-on labs, debate and discussion • Develop online activities like quizzes, lecture videos, discussion forum and webinar • Implement blended activities like peer review of assignments, get feedback online for the class activities and storytelling digitally • Simulate natural objects with gamification, e-portfolios and role playing	**Unit 2: Learning Activities Design (6 Hours)** 2.1 Classroom Activities - Lecture and presentations - Debate and discussions - Code snippets - Hands-on labs 2.2 Online Activities - Quizzes - Lecture video - Discussion forum - webinar 2.3 Blended Activities - Peer review of coding assignments - Post class online activity - Digital storytelling 2.4 Simulation of Natural Objects - Gamification - E-Portfolios - Role Playing

Faculty of Education
Office of the Dean
Balkhu, Kathmandu

• Apply Classroom Discussion, Exit Tickets, Think-Pair-Share • Make use of traditional test, performance task, portfolios, presentation • Conduct pre-tests, concept mapping, interviews • Assign Peer review, group assessment • Prepare Learning Diary, self-grading sheets • Design and develop rubrics and checklist	**Unit 3: Assessment and Evaluation in ICT Teaching (6 Hours)** 3.1 Formative Assessment - Classroom Discussion, Exit Tickets, Think-Pair-Share 3.2 Summative Assessment - Traditional test, performance task, portfolios, presentation 3.3 Diagnostic Assessment - Pre-tests, concept mapping, interviews 3.4 Peer Assessment - Peer review, group assessment 3.5 Self-Assessment - Learning Diary, self-grading
• Create the Landscape of programming • Connect different languages writing style with each other • Introduce syntax and make sure to scaffold students to write it • Focus with specific structure first • Divide the task into small chunks to simplify • Learn how to use file for input and output • Ask students to handle bulk data in separate variables • Explain what to store and how • Elaborate Create, Retrieve, Update and Delete operations • Move gradually towards complex structures	**Unit 4: Teaching Computer Programming (8 Hours)** 4.1 Landscape of Programming 4.2 Control Structure and Looping 4.3 Real World Objects Illustration 4.4 Objects in the programs 4.5 Bulk Data Handling (Array) 4.6 File as a Input Tool 4.7 File as a Output Tool 4.8 Data Resource Management Strategies 4.9 CRUD Operation 4.10 Application Programming

• Provide resources to help students access necessary technology • Create transcription or captions to reach more people • Build community by using tools like discussion boards, video breakout rooms, and collaborative platforms • Make use of learning management system to track learning activities • Establish a technical support team to assist with common technical problems.	**Unit 5: Digital Classroom Management and Technological Issues (6 Hours)** 5.1 Accessibility - Digital Divide - Captioning and transcription 5.2 Calendaring and Scheduling 5.3 Community Building 5.4 Learning Management System 5.5 Feedback Loops 5.6 Technical Issues - Connectivity - Device Compatibility - Software Glitches

Part II Practical (32 Hours)

Units	Topics	Practical Works
1	**Learning Resources Design**	**Practical Task: (6 Hours)** • Design and develop based resources to assist teaching and learning • Create animated or doodle video using video creator tools like Powtoon, Animoto or VideoScribe to design learning resources
2	**Learning Activities Design**	**Practical Task: (6 Hours)** • Develop online quizzes, lecture videos • Organize webinar and identify its challenges and opportunities • Create simple games using different online tools to support learning
3	**Assessment and Evaluation in ICT Teaching**	Practical Task: (6 Hours) • Apply Classroom Discussion, Exit Tickets, Think-Pair-Share, traditional test, presentation, Conduct pre-tests, Design and implement simulations • Assign Peer review, group assessment, Prepare Learning Diary, self-grading sheets

		• Design and develop rubrics and checklist and use it to evaluate
4	**Teaching Computer Programming**	**Programming Task: (6 Hours)** • Write programs to solve simple decision-making problems • Write programs to utilize control structures to repeat • Write programs to simulate real world objects • Write programs in object-oriented paradigm to solve different problems • Elaborate Create, Retrieve, Update and Delete operations • Write program to handle file **Collaborative Work (2 Hours)** • Collaborate with students to find out real world objects and their attributes
5	**Digital Classroom Management and Technological Issues**	**Field Work (3 Hours)** • Form group of 3-4 students and assign the task to identify common technical problems that are aroused during digital communication and ask them to prepare report and present in class. **Practical Task: (3 Hours)** • Ask students to create digital content and transcribe in different languages to reach more people

4. Instructional Techniques

The instructional techniques for this course are divided into two groups. First group consists of generalinstructional techniques applicable to most of the units. The second group consists of specific instructional techniques applicable to specific units.

General Techniques

- Providing the reading materials to the students to familiarize the units.
- Lecture, question-answer, discussion, brainstorming, practical, and buzz session.

Specific Instructional Techniques

Unit	Activity and Instructional Techniques	64 Teaching Hours
1	Lecture, Group Work, Presentation	9
2	Practical, Project Work, Lecture	18
4	Project Work and Presentation, Discussion	16
6	Lecture, Group Work, Presentation	10
7	Review Writing, Project Work, Lecture	11
	Total	

5. Evaluation Criteria

Nature of Course	Internal Assessment	External Practical Exam/ Viva	Semester Examination	Total Marks
Theory + Practical	**40**	**20**	**40**	**100**

Note students must pass separately in internal assessment, external practical exam/viva andsemester examination.

Evaluation for Part I (Theory)

Internal Evaluation

Internal evaluation will be conducted by course teacher based on following activities:

1)	Attendance	5 Marks
2)	Participation in Learning Activities	5 Marks
3)	First Assessment (Written Assignment)	10 Marks
4)	Second Assessment (Term Examination)	10 Marks
5)	Third Assessment (Internal Practical Exam/Case Study)	10 Marks
	Total	40 Marks

External Evaluation (Final Examination)

Examination Division, office of the Dean, Faculty of Education will conduct finalexamination at the end of semester.

1.	Objective Type Question (Multiple Choice Questions)	10×1= 10 Marks
2.	Short Answer Questions (6 Questions with 2 Or)	6× 5 = 30 Marks
	Total	40 Marks

Evaluation for Part II (Practical)

i) Records of Practical Activities 10

ii) Laboratory Work Exam/Case Study... 5

iii) VIVA..... 5

Total..... 20 Marks

6. Recommended books and Reading Materials

Peter Hollins, P. (2021). *How to Teach Anything_ Break Down Complex Topics and Explain with Clarity, While Keeping Engagement and Motivation,* PH Learning Co.

Hill, L.H., & Rose, A. (2020). *Assessment, Evaluation, and Accountability in Adult Education,* Taylor & Francis

Vowels, S.A., & Goldberg, K.L. (2019). *Teaching Data Analytics_ Pedagogy and Program Design*, Auerbach Publications

Budhai, S. S., & Taddei, L. M. (2015). *Teaching the 4Cs with Technology_ How do I use 21st century tools to teach 21st century skills,* ASCD

Spalding, D. (2014). *How to Teach Adults_ Plan Your Class, Teach Your Students, Change the World*, Expanded Edition-Jossey-Bass

Rubin, M.J. (2013). *The effectiveness of live-coding to teach introductory programming, In proceeding of the 44th ACM Technical Symposium on computer Science Education*, available from: https://dl.acm.org/doi/10.1145/2445196.2445388

Jan Pleuger, J. (2001). *How to Teach Modern Languages - and Survive!,* Multilingual Matters