Tribhuvan University

Faculty of Education

Office of the Dean

Revised Curriculum of M.Ed.

Fourth Semester

2078 (2021)

List of Subjects

CORE COURSES

Ed. 545: Contemporary Educational Issues

Course Code: Ed.545
Nature of Course: Theoretical and Practical
Level: M. Ed. Credit Hours: 3 (1Th +2 Pr)
Semester: Fourth Teaching Hours:80 hrs (16 Th.+ 64 Pr.)

1. Course Introduction

This course aims to provide students with opportunities to identify explore and understand issues relevantto the school education in Nepal. The course enables students to review the educational policies, research reports,and theoretical literature. This course also helps students directly link their knowledge with the current practices in the educational sector. It allows students to write and present comprehensive seminar paper based on the analysis of the selected educational issues comparing, relating, and reflecting upon the theoretical perspectives, policy provisions, and research findings.

2. General Objectives

- To identify contemporary educational issues.
- To develop critical perspectives about the selected educational issues.
- To review the theoretical literature, policy documents and research reports.
- To prepare a comprehensive seminar paper.

3. Course Details

Part I: Conceptual Understanding of Educational Issues (8 hours)		
Specific Objectives	**Contents**	**Content Coverage** (under each content area at least the following broadquestions should be dealt with)
• To get oriented about different issues in school education with specific reference to Nepal. • To develop critical	**1.1 Access, equity,inclusion, and medium of instruction**	1. How can e.g. gender, disability, caste, ethnicity, socio-economic status, geography, sexual orientation (Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex) be challenges or resources in teaching learning? 2. What should be the medium of instruction in earlygrades (bilingual, multilingual, English, Nepali)? Why? 3. Should mother tongue be medium of instruction orsubject? Why? Above questions are only examples. Please enable students to raise and explore other questions/issues.

insight/perspecti ves on each issue • To be able to frame issues.	**1.2 Classroom teaching, learning, assessment, and relevance of curriculum**	1. What kind of issues can emerge in a diverse classroom? How to manage such issues in teaching learning and student evaluation according to learner'sneeds? 2. Is National Curriculum required? Why? How much ofthe curriculum should be national and how much should be local? (Local vs. central) Why? 3. What is the implication of curriculum localization?Why? 4. How curriculum development is influenced by political belief system? How does it affect studentlearning? 5. Should curriculum allow each and every student topursue her or his interests and aptitude? Why? If itshould then how?
		Above questions are only examples. Please enable students to raise and explore other questions/issues.
	1.3 Free and compulsory education	1. Can education be completely free? Who pays for children's education? What should be free in free education? (Tuition fees, books and stationeries, tiffin,uniform, ..). Appropriateness of compulsory education policy to ensure education for all. 2. Who should take responsibility of implementingcompulsory education provision (e.g. Local government; Provincial government; Federal government)? 3. Is compulsory education policy enough to bringchildren to school? Why? 4. Up to which level should education be free andcompulsory? Above questions are only examples. Please enable students to raise and explore other questions/issues.

	1.4 Modes of schooling	Different modes of schooling include Private, Community, Cooperative, Open, Faith based educationinstitutions, etc. Some issues or questions that can be explored are: 1. Should education be only the government's responsibility or non-state (Private, cooperative,religious faith based) providers should also be encouraged? Why? 2. Should curriculum (Content, pedagogy, assessment,etc.) be different in different modes of education? Why? 3. What are the issues and challenges in teaching learning and curriculum in Madarsa, Gurukul andGompa? Above questions are only examples. Please enable students to raise and explore other questions/issues.
	1.5 Shadow education	Shadow education refers to Private tuition center/institutes 1. What does it mean by Shadow education? 2. How prevalent is shadow education in Nepal? 3. What are its implications in public education system? Above questions are only examples. Please enable students to raise and explore other questions/issues.
	1.6 Teacher development	Teacher Development refers to or includes teachermanagement, career development, professional development, etc. 1. What constitutes teacher professional development? 2. Should teacher professional development beindividual's responsibility or employer's responsibility? Why? 3. Who should be responsible for teacher recruitment, transfer, promotion teachers in federal system? Why? Above questions are only examples. Please enable students to raise and explore other questions/issues.

	1.7 School governance and accountability	School governance here refers to school ownership, management, community participation, etc. 1. Who should be responsible for the operation of schools in federal Nepal (Local or Provincial or Federal government?) Why? 2. What constitutes good governance (Transparency,accountability, participation, etc.)? 3. Who should be responsible for school management? 4. Should school management inclusive of gender, caste,and ethnicity? Why? 5. What does corruption constitute? What doescorruption in education mean? Above questions are only examples. Please enable students to raise and explore other questions/issues.
	1.8 ICT in education	ICT in education refers to both ICT education and use ofICT in education 1. What are the ways of teacher preparation and continuous opportunity for upgrading knowledge andskills in ICT? 2. How much is enough in terms of the core ICTknowledge and skills? 3. What is the nature of ICT knowledge and its integration in school knowledge- primary or secondary (Where to start? separated subject orintegrated?) 4. How to address the rapid explosion and obsolescenceof ICT knowledge? 5. How to reduce disparity and to enhance equity in ICT(issue of digital divide and its' impact in children's learning and education)? 6. What are the issues related to testing and assessmentof ICT knowledge and skills? and how to address them? Above questions are only examples. Please enable students to raise and explore other questions/issues.

Teaching Learning Strategies

Teacher's Inputs	**Students' Efforts (8 hrs)**	**Outcome**

• To orient students about theidentified areas through classroom teaching. • To assist students identify andframe issues in a given area.	• Attend all the classes regularly. • Participate in classroom discussion and groupwork to understand and identify issues. • Do practice at home and generate issues in each area.	• Students will produce list of issues for further discussion and exploration in each area.

Part II: Conceptual Understanding of the Issues as Reflected in the Policy/Plan/Documents.(8 hrs workshop, one hour to each issue area)			
Teaching Learning Strategies			
Documents	**Teacher's Inputs**	**Students' Efforts**	**Outcome**
Examples Only:	• Workshop support	• To explore and identify the provisions related to the issues	• Identify issue to further explore.
1. School Sector Development Program (SSDP), Education Policy 2076. 2. Equity strategy 2071 3. National Curriculum Framework 4. Current Education Act &Regulations 5. Scholarship guidelines 6. Open and distance educationpolicy 7. The Prevention of CorruptionAct, 2059 (2002 A.D) 8. Teacher professional development related policies,guidelines 9. The current Development Plan 10. Inclusive education policy2017 (2073) 11. Cooperative Act & Regulation 12. Madarsa, Gompa and Gurukulrelated Acts and Policy documents. The above are only examples. Please identify the latest policy	• Assist students in locating documents • Assist students identify the issue.	in different educational policies and plans in Nepal. • To analytically review the policy and plan documents from the perspectives of the identified issues (how the selected issues are discussed and addressed in the revieweddocument/s). • To relate theoretical/conceptual perspectives (sociological, psychological, curricular, learning management theories etc.) studied in the previous semesters with the particular educational issue/s in order toundertake document-based study.	• Identify minimum 2 policy documents for further in depth review. • Identify theoretical/conceptual perspective relevant to the identify issue. • Identify research reports relevant to the selected issue.

documents in related to the selected issue.			

Part III: Practical Activities on Educational Issues (64 hours)		
Teaching Learning Strategies		
Teacher's Inputs	**Students' Efforts: Proposal Preparation (8 hrs)**	**Outcome**
• Assist students toprepare seminar paper proposal.	• To develop plan and strategy to study about the selected educational issue. • To finalize the proposal (plan and strategy) in consultation and approval ofthe department/mentor.	Seminar paper proposalin the given format.
Teacher's Inputs	**Students' Efforts: Review Paper Preparation(40 hrs)**	**Outcome**
• Assist students tocritically write thereview paper.	• Review at least 3 policies, plan and strategydocuments relevant for the selected issue from the list (or beyond) provided above.	• Students will select the issue for review from thegiven content areas.
• Assist students to discuss, compare and contrast ideas/concepts and findings found in different types of literature (Policy/plan/strategies, theory/concept and findings of research/studyreports).	• Review theoretical/conceptual literature. • Review research report/dissertationrelevant to the selected issue. • Discuss analytically how all the above documents and concept view or speak about the issues selected for review. Compare and contrast all three types of documents/concept while analyzing them.	• Students will locate, collect and review the materials related to theissues that they selected. • Prepare and submita comprehensive review paper.
Teacher's Inputs	**Students 'Efforts: Seminar Paper Preparation(80 hrs)**	**Outcome**
• Assist students to develop seminar paperon the selected issue.	• Do a mini research (telephone or face toface interview with 1 or 2 person or observe a classroom, etc.) • Develop and finalize the seminar paper in thegiven format individually under the Guidance of the mentor.	Seminar paper inthefollowing format.

4. Evaluation Criteria (Internal 40%, External 60%)

Students' learning will be evaluated based on 40% internal assessment and 60% external examination.

Evaluation criteria will be as explained below:

Internal Evaluation

Evaluatio	Nature	Points	Criteria (Points)	Description
Internal Assessment (40%)	Theory	15	a. Attendance (5) b. Written test(10)	a. The percentage of attendance in theory class and participation in workshop will be rewarded as: 70-80=3, 81-90=4, 91-100=5 points.Supervisor may score these points even in decimal value. b. Department/campus will conduct internal written test whichconsists 2 questions each of 5 points.
	Practical	25	a. Participation (5) b. Review (5) c. Seminar paper(15)	a. Supervisor will provide 5 points on the basis of students' regularityon proposal, review work and effort in developing seminar paper. b. The review report will be evaluated on the basis of use of APA,review, and reflection of selected document. c. Seminar paper will be evaluated on the basis of technical aspect (5),analytical aspect (5), and presentation (5).

External Evaluation

Evaluat	Nature	Points	Criteria (Points)	Description
External	Theory	20	**Written examination**	Faculty of Education, Dean's Office will conduct written examination at the end of semester. The test will consist of 3 subjective questions with 1 OR question, each of 5 points and 5 objective questions each of 1 point.
	Practical	40	**External Evaluation andviva**	a. Structure and component of the report (25 points) 1. Technical aspects: Cover page, report uniformity, languageerror, page setting, margin, indentation, heading, etc. (5) 2. Content coverage and organization (8) 3. Sufficient literature, citation and linkage with reference (7) 4. APA Referencing (5) b. Presentation (20 points) 1. Ability to communicate the objectives and method (8) 2. Ability to communicate findings and conclusion/reflection (8) 3. APA referencing practical (4)

Note: **Number of students per class**: The number of students for theory class will be 50 per section. For the purpose of practical classes (seminar paper writing and instruction including student guidance, supervision and other practical activities) the number of students will be 15 per group per teacher. The sections will not break up to 20 students, andthe sections will be broken when the number will cross 21. For example, if there are 80 students in the class then 80/15 = 5.33, there will be 5 sections. If there are 81 students the section will be 6.

References

a. Internet search for scholarly articles on the concepts related to the content areas.
b. Important and relevant documents/materials (e.g. visit web sites of the Ministry of Education, Science andTechnology and other agencies within the Ministry; web site of Nepal Law Commission and web site of UN agencies and I/NGOs working in education sector for additional documents/materials). All the materials may not be available in the web sites. Therefore, visiting libraries of the organizations is also necessary.
c. National and international dissertations and other research and evaluation reports related to the issues.

Seminar Paper Proposal Format (Only One Page)

Issue Area

Write an area of issue among eight areas in the course.

Issue Title

Write an issue title that you generate during the workshop discussion and going to prepare seminar paper.

You read all the areas but you will select an issue from any one area of your interest and content command.

Objectives

Write one or two objectives of your seminar paper.

Method and Process

Mention exactly what you are planning to do during seminar paper writing.

Literature

Write the name of possible literatures that you are going to reviewed in your paper.

References

d. Daily newspapers, monthly and weekly education related authentic print as well as online magazines,newspapers/portals.
e. Any other authentic resources and sources in addition to the above. Wikipedia and other similar sourcesare not acceptable.

Five Step Guidelines for Practical Part

Step 1: Submit your seminar paper proposal (brief) in the following format.

Step 2: ***Review document and prepare report (5 points).***
Under the guidance of your supervisor review selected document, research based article

or research reportusing the following guideline
Guideline for policy and other relevant literature review on the issues selected

A. **Select an area of the issue:** Which is already done in your seminar paper proposal
B. **Write an issue:** More conventional in statement form but you can write either in a question form or instatement form– what you want to study/explore/analyze.
C. **Locate and find out the document:** For literature review find latest policy documents, regulations, etc.
D. **Study and analyze the literature:** Review research reports, research articles, journal articles, etc.
E. **Prepare review report:** Prepare review paper using the following format
    a. ***Introduction***: What are your main aims/objectives/focus.. what are the document/literature reviewed, howreview is carried out, what else are there in the preceding sections etc (just one or two paragraph).
    b. ***Major provisions***: Write the major provisions related to the area of an issue you selected (whatactually you find in the policy and literature about your issue)
    c. ***Discussion of the findings***: Drawn from other literature (what you have understood, what is your thought,what are not stated/hidden, what alternative could be suggested etc.
    d. ***Conclusion***: What is your final thought and reflection?
    e. ***References:*** Provide the list of resources in APA format that you cited in the review report.
F. **Submit the report** with your personal details (Name, Roll No., Specialization, Section, etc.)

Note: Report may be of 1000 to 1500 words length.
Step 3: Prepare seminar paper under the guidance of your supervisor.

Students may use following guideline orformat for writing seminar paper

Cover Page: First page should be in the following format (Model)

Seminar Paper Title(Seminar Paper)

Submitted to:
Department of Foundations of Education,
Name of Your Campus, Address,

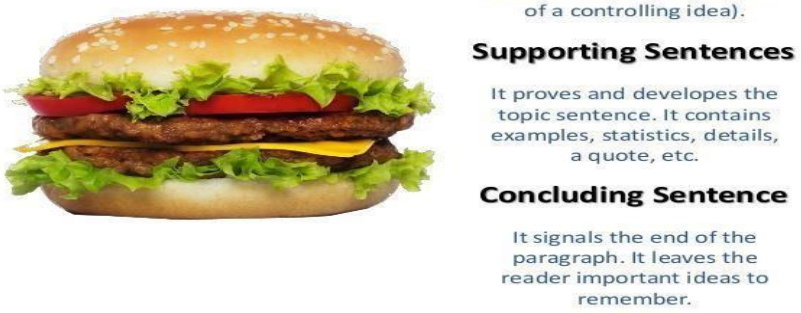
for the PartialFulfillment of Contemporary Educational Issues (Ed 541)

M. Ed. Fourth Semester

Submitted by: Name of Student Symbol No
Major Subject Year

Writing Guidelines for Seminar Papers

Preliminarypart	**Title**	Your exact title (but don't write the heading 'title').
	Abstract	OMFC (1 or 2 sentences for Objectives, 1-2 sentence for Method, 2-4 sentencesFindings, 1-2 sentence Conclusion). For more information regarding abstract writing see APA guidelines. *(150 – 200 words).*
	Keywords	4-6 words of great significance in your paper; can be used for indexing or search
Ma	**Introduction**	Your aims or objectives of the study (e.g. The aim of this paper is to ….), introduce the key theme/s that appear/s in your issue (what does it mean in yourconcern-based on your understanding and literature), debates on the issue, contextual information/data, rationale and significance, sections and headings/subheadings (what components are in your paper- structure/organization of the paper) *(Maximum 500 words)*
	Issue and Objectives	State issue topic exactly what you wrote in your proposal under 'issue' and 'objectives'. You may add one more objective if it requires.

	Method	• Document analysis – which documents did your review? How did you study and analyze? (e.g. skimming, focused reading, summary taking, content analysis, comparing, connecting, and contrasting ideas or policyprovisions, presenting opinion/thoughts of the self, etc.) (one or two paragraph) • Field study or empirical study – how did you collect and analyze data -where, who, when, how (one or two paragraph) *(Maximum 300 words)*
	Literature review	Include the document review paragraph you did earlier in the reviewpaper and add some more relevant literature in chronological order.
	Findings and discussion	• Discuss the findings objective wise if there is more than one objective. • Findings should be based on the **theme** related to the objective. Createsubtheme if it requires. Support or refute each theme or subtheme by field data, literature, theory (if any), or previous research findings. • You may write the finding paragraph in the following structure: ***-Findings and discussion related to objective 1***  First topic sentence, add example, evidences and quotes (first hand data collected from the field or evidences from the literature)in between, stateconclusion.
		What else in discussion? – what did they understand, what was in the policy in line with what you reviewed in the earlier section (or/and you candiscuss the findings linking with other literature) and what was found in the practice, what could be alternatives/ suggestions. ***-Findings and discussion related to objective 2***(same as above) *(Maximum 1500 words in total)*
	Conclusion	Very short essence of your findings relating with the policy or literature reviewed earlier. **Your final thought and reflection are crucial**. Your conclusion must fulfill the intent of the objectives

		you formulated earlier *(Maximum 500 words)*
Reference part	**References**	At the end of your paper include the list of all resources in APA format that you used in citations. For citation and referencing rule, you can use any research book in third semester or the **American Psychological Association** (APA) writing guidelines 7th edition.

Step 4: ***Submit your final seminar paper to your supervisor for internal evaluation*** **(15 points)**

Upon completion of seminar paper student need to engage in seminar presentation. For this the college/department will form seminar organizing committee of students. The role of school/department and committee is as given below.

Role of Campus/Department

1. Publish the notice specifying the week of seminar presentation.
2. Develop the seminar presentation template (model) and different aspects to be included in it.
3. Form a **Seminar Organizing Committee** of students (5 to 7 members). If the number of students is large there may by more than one organizing committee based on the students' areas of issue.
4. Define and specify the role of seminar organizing committee.
5. Perform other administrative activities as required

Role of Seminar Organizing Committee

1. Run the meeting of seminar organizing committee
2. Decide the date, time, and venue of seminar paper presentation.
3. Manage room, hall, projector, etc. for the seminar paper presentation.
4. Inform and invite participants, supervisor/facilitator/mentor, and expert at the seminar presentation mentioning the objective of seminar.
5. Manage for registration and attendance of participants.
6. Prepare presentation schedule of each participants (better to provide 10-15 min to each participants).
7. Facilitate the presentation of the colleague; help incorporate the feedback and support for final report.
8. Collect all the presented slides, keep them separately in area wise folder, and send to the internal/department.
9. Provide support in slide preparation and seminar presentation if necessary.

Role of Internal Supervisor

1. Support students to incorporate the feedback given by the internal expert during seminar paper presentation.
2. Recommend the seminar paper written by students for external evaluation (During external evaluation student must present the

finale seminar paper with the clear date and signature of interna supervisor on the cover page).

Note: At the end of this step 4 supervisor have to accumulate internal scores obtained during the processand activities mentioned above (from Step 1 to 4) by each student (Re: out of 40 points) and submit the score to the campus/department. Submission of this score will make student eligible for written examination to be conducted by the Dean's Office, Faculty of Education, Balkhu.

Step 5: *External evaluation* (40 points)

After completion of all the written examination, the Dean's Office will arrange for external evaluator withthe facilitation of respective campus/department for practical part. Student should attend final viva for external evaluation. During external evaluation includes the following tasks.

1. Student should submit all the checked/corrected versions of literature review, seminar paper and theslides presented internally to the external evaluator.
2. External Evaluator must read students' reports and the corrected versions of their literature review,seminar paper and the slides presented internally.
3. Students will sit for external viva where external evaluator will evaluate both the oral presentationand reports.

Ed. 542: Teaching Practice Nature of course: Practical
Course No: Ed. 542 Credit Hours: 3 (2 on Campus and 1 Off Campus)
Level: M.Ed. Duration: 12 weeks
Semester: Fourtth Teaching hours: 64 on Campus

1. Course Description

This course is designed to provide hands-on experiences to the students in **the specialization subject** area of their teaching profession for enabling them to be better teachers/professionals. It creates enabling conditions to the students for bringing professionalism through rigorous practice. The students will gain professional experiences in their own campus and in cooperating schools or campuses under the close supervision of faculty members of concerned campus/college. In this course, students undertake six major activities in sequential phases: i. orientation of practice teaching; ii. development of observation guidelines and observation of teaching of school/campus teachers; iii. experience sharing among the students; iv. on-campus micro-teaching; v. teaching at school/campus; and vi. preparation of overall report.

2. General Objectives

The general objectives of this course are as follows:

- To enable the students to get insight into the overarching aims and phases of teaching practice programme
- To provide adequate learning experiences to the students for making them competent in preparing effective lesson plans with appropriate teaching techniques and teaching aids according to the content to be taught
- To provide practical experiences for observation of teaching of teachers to capture their good practices
- To enable the students to construct, administer, analyze and interpret appropriate tests in their teaching subject according to the contents to assess the effectiveness of their own teaching
- To provide the students an appropriate platform for sharing and learning different aspects of teaching practice with the school/campus subject teachers and their own peers
- To make them familiar with challenges and issues of teaching practice programme and ways to address them
- To develop skills of report preparation of teaching practice programme

3. Specific objectives and Major activities

Specific Objectives	Major Activities
• Elaborate on the activities to be carried out in different phases of teaching practice programme • State the requirements to be fulfilled to complete the teaching practice	**Phase I: Orientation of Practice Teaching** **Two** days 1.1 Introduction to the phases of teaching practice programme 1.2 Requirements to be fulfilled
• Prepare observation guidelines for collecting information during observation of teaching by school/campus teachers • Collect pertinent information during observation of teaching • Analyse them to find out good practices that can be shared among the peers	**Phase II: Observation of School/Campus Teachers' Teaching Activities** **One** week 2.1 Preparation of observation guidelines for observing the teaching of concerned subject teachers 2.2 Observation of teaching of effective teachers 2.2 Analysis of information collected during observation of teaching 2.3 Identification of good practices
• Prepare observation report • Present the report to share the findings	**Phase III: Experience Sharing** **Four** days 3.1 Brief report preparation of observation of teaching

of the observation	3.2 Presentation of reports for sharing experiences
• Prepare micro lesson plans with teaching aids • Prepare power point presentation (PPT)of lesson plans to show it in the classroom	**Phase IV: On-Campus Micro-teaching** **One** week 4.1 Preparation of at least five lessons using different teaching methods 4.2 Preparation of teaching aids and materials and PPT 4.4 Micro-teaching practice in small group (6-10 students) 10 minutes for each of five lesson
• Choose teaching subject and prepare good lesson plan for peer teaching practice • Demonstrate skills required for prepare different teaching aids/materias as per requirement of lesson plan • Teach at least 10 lessons for peer students in classroom using different methods and materials • Provide feedback to peer students	**Phase V: Peer Teaching on Campus** **Two weeks** 5.1 Chosing teaching subject 5.2 Preparation of at least 10 lesson plans and construction of aids/materials required for teaching each lesson. 5.4 Teaching at least 10 lessons for peer students in real classroom (up 30 peer students) using different methods and materials- 20 minutes for each of 10 lessons 5.5. Discussion on strong and weak aspects, and feed to student teacher by peers and teachers
• Teach students based on lesson plan using different methods and materials • Demonsrate skill to construction different types of instructional materials • Develop and demonstrate skills and competency to teach given subject matters effectively. • Manage classroom using different strategies for effecting instruction and facilating learning • Observe and record the teaching of their peers • Analyse the teaching of peers and find the difference between their observation and that of campus supervisor • Find good practices of teaching demonstrated by their peers and adopt and adapt according to their needs • Prepare tests, and administer and analyze them	**Phase VI: Teaching at Schools/Campuses/Colleges** **Six** weeks 6.1 Teaching (30 lessons) 6.1.1 Preparing and teaching 30 lessons of the chosen subjects in real classroom in cooperating school/college using different methods and materials 6.1.2 Construction of instruction aids/materials required for teaching each lesson 6.1.2 Managing classroom for effective instruction and learning 6.1.2 Observation of teaching of students by campus supervisor and concerned teacher 6.1.3 Conference with the student-teacher for feedback 6.2 Peer Observation (5 lessons) 6.2.1 Observation of teaching by peers with campus supervisor 6.2.2 Analysis of teaching by peers and campus supervisor and feedback to student teacher and peers 6.2.3 Identification of good practices 6.3 Tests 6.3.1 Test construction of both subjective as well as objective test item on the basis of the lessons taught 6.3.2 Administration of both tests 6.3.3 Analysis and interpretation of test results
• Prepare overall report of teaching practice including all the components as mentioned in phase 7 in the next	**Phase VII: Preparation of Overall Report** **One** week 7.1 Preparation of overall report of teaching practice in a given format

column	Title page Acknowledgments Acronyms and Abbreviations Table of Contents Part I: On-campus activities Background Preparation of instruments for class observation Analysis of observation Brief report including material construction and lesson learned Part II: Activities in School/Campus/College Analysis of teaching activities carried out in school/campus Analysis of peer observation Assessment of teaching Lessons learned Part III: Test Construction, Administration and Analysis and Interpretation of Test Results (difficulty level and discrimination index) References if any Appendices

4. Guidelines for Conducting Major Activities

Phase I: Orientation of Teaching Practice (3 days)

- Phases of teaching practice programme
  - Conduct a workshop for those campus tutors/supervisors who will be involved in teaching practice and it will be facilitated by experts from Faculty of Education and/or chairperson of practice teaching instruction committee of respective campus
  - Conduct subject-wise orientation of the students by the subject-wise campus supervisors/tutors on different phases of teaching practice
- Requirements to be fulfilled by the student-teachers (Daily attendance is compulsory during teaching practice period)
  - On-campus activities
    Preparation of guidelines for observing the teaching
    Micro-teaching practices with the support of campus mentor
    Campus level experience sharing
  - Activities to be carried at cooperating schools/campuses
    Preparation of at least 30 lesson plans using variety of instructional techniques
    Preparation of teaching aids
    Teaching of at least 30 lessons
    Observation of at least five lessons of peers' teaching and prepare its report;
    Prepare subjective as well as objectives tests
    Administer the tests
    Analyse and interpret the test results
    Preparation of full report of teaching practice including all the activities conducted in the school/campus during teaching practice period.

- Student-teachers should be regarded as unpaid full-time members of the staff of the school/campus and are required to be free of all other commitments during the school/campus day, and are expected to make themselves available for a limited amount of extra-curricular responsibility when requested to do so.

Phase II: Observation of Teaching of School or Campus Teachers (1 week)

- Students will prepare individually or in groups the guidelines for observing the teaching of school or campus teachers with the support of concerned subject campus supervisor/tutor
- Single students or students will observe the teaching of school or campus teachers and will make a report of each teaching
- Students make a list of skills or teaching competencies that can be learnt from the observation of the teaching.

Phase III: Experience Sharing (4 days)

- Students will prepare a brief report from the observation of teaching of school/campus teachers focusing on the lesson learnt which will be useful for improving their teaching
- Students will present for sharing their experiences which they utilize for improving their teaching competencies

Phase IV: On-campus Micro-teaching (1 week)

- Let the students include those skills or competencies identified in the teaching of school/campus teachers in their micro-teaching lessons
- Teach those lessons to develop teaching skills using the micro-teaching cycle

Phase V: On Campus Peer Taching (2 weeks)

- Each student will choos teacing subject as per his/her specialization subject and prepare at least 10 good lessons and requires instructional materials
- Each student will teach at least 10 lesson for peer using different methods/techniques and materials
- After teaching each lesion, there will be discussion on strong and weak aspects, and suggession/feed for the improvement

Phase VI: Teaching at Schools/Campuses (6 weeks)

- Prepare lessons using different instructional techniques with the support of campus supervisor
- Construct different instructional materials inclusing concrete materials required for teaching lesson plan
- Improve the lessons through continual repetitions with the suggestions of campus supervisor and internal supervisor
- Teach at least 30 lessons of the chosen subject in real classroom of cooperating schools/campuses
- Observe the lessons of the peers in the presence of campus supervisor, analyze the results and provide knowledge of results to both students
- Develop subjective (long answer questions 10, short answer question 20) and objective tests (40 MCQ) considering revised bloom taxanomy and teaching subject
- Administer the tests (subjecti and MCQ test)
- Analyse and interpret the test result

Phase VII: Preparation of Overall Report (1 week)

- Students will prepare overall report.

5. Evaluation of Teaching Practice

The internal supervisior and external examiner must evaluate performance of students' teaching practice independently. Each student must obtain 50% score in internal and external evaluation separately to pass teaching practice course.

Students admitted to the blended/online mode must be engaged in micro and peer teaching practice activities virtually under the guidance and supervision of subject teacher/internal supervisor. However, they must teach 30 lessons in real classroom (face to face) of cooperating school/campuses chosen by them with the permission of Department of Teaching Practice of Campus/Department and must record the videos (at least 10) of real classroom teaching activities, and submit the video record to the internal supervisor. Final external examination will be conducted in the school/campus located near by the Department/Campus running blended/online classes. For final external evaluation, the student must attend the concerned Department and teach at least one lesson in real classroom of schools/campuses assigned by the Department of Teaching Practice.

Internal and External Evaluation of Teaching Practice

Description	Internal Evaluation		External Examination (40%)
	Internal Supervisor (50%)	Subject teacher of cooperating school or campus (10%)	
Report of bservation of School/Campus Teachers' Teaching Activities	5		5
Lesson plans	5	5	5
Construction of instructional mateials	5		3
Micro-teaching practice	5		-
Peer Teaching Practice	5		-
Teaching performance in school/campus	10	5	15
Peer observation and its report	5		2
Test construction, administration, analysis and interpretation	5		5
Overall report of teaching practice	5		5
Total	50	10	40

Note: Final score will be adjusted automatically according to Semester Examination Rules if there is a variation of 20% or more between internal and external ecaluation.

6. Recommended Books and Reference Materials

American Psychological Association.(2009). *Publication manual of American Psychological Association*. (6th ed.). Washington DC: APA.

Baharain Teachers College. (2008). Teaching practice: Student teacher handbook. Baharain: Baharain University http://www.btc.uob.edu.bh/UltimateEditorInclude/UserFiles/StuTeach%20TP1.pdf (Retrieved 8/23/2015)

Cohen, L., Menion, L., & Morrison, K.,(2010). *Teaching practice*. India: Routledge.

School of Education. (2013). *Teaching practice handbook.* Cape Town: University of Cape Town

Faculty of Education. (2014). *Teaching practice handbook.* Hongkong: The University of Hongkong. http://web.edu.hku.hk/community/school-university-partnerships/teaching-practice/teaching-practice-handbook (Retrieved 8/23/2015)

Ed. PM. 542: Practicum in Education Planning and Management Nature of the course: Practical
Course No.: Ed. PM. 542 Credit hours: 3 (2 on Campus and 1 Off Campus)
Level: M.Ed. Duration: 12 weeks
Semester: Fourth Teaching Hours: 64 on Campus

1. Course Description

Practicum is an integral part of M.Ed. in Educational Planning and Management through which the students are expected to gain insight into planning, managing and leading higher secondary schools/campuses with teaching competencies gained in teaching subjects in real classrooms. Considering this perspective, this course is designed with three major components: First component deals with the observation and study of educational planning, management and leadership practices of head teacher or principal as interns in the cooperating schools/campuses. The second component engages the students in teaching practice using new teaching approaches. In the third component, students organize in-school seminar as opportunity for work-based learning.

2. General Objectives

The course is designed to accomplish the following general objectives:

- To develop students with abilities to analyze the activities of higher secondary school/campus managers/leaders applying theories of educational planning, management and leadership.
- To provide opportunities to students to work as interns for gaining hands-on experiences in planning and managerial activities.
- To expose students to leadership roles to be played by higher secondary school/campus head teachers/principals in the development of their own institution.
- To enable the students to prepare in-depth case study in one of the areas of higher secondary school/campus in relation to planning, managerial and leadership practices
- To provide the students with an opportunity to gain hands-on experience of real teaching at cooperating higher secondary school/campus
- To enable the students to share and learn different dimensions of teaching practice with the teachers of cooperating higher secondary school/campus and their own peers.
- To give students practical experience in conducting seminar on current issues of the institution they are associated with.

3. Specific Objectives and Activities

Component I: Internship

Specific Objectives	Activities
• Assess planning activities being practiced in cooperating school/campus • Develop and revise school/campus development plans, calendar of operation and work plan of individual teachers • Review organization structure and suggest a better structure if necessary	Activity I: Study of Higher Secondary School/Campus's Managerial Practices (4 weeks) 1.1 Planning practices 1.1.1 School/campus development plan 1.1.2 Calendar of operation 1.1.3 Work plan of subject teachers 1.2 Review of organization structure 1.3 Teacher management and development 1.3.1 Teacher selection practices 1.3.2 Teacher promotion 1.3.3 Teacher development practices

• Examine teacher management and development activities being practiced in cooperating school/campus • Assess leading practices of cooperating school/campus on the basis of their motivation and leadership styles • Explain monitoring and evaluation practices of cooperating school/campus • Prepare an in-depth case study • Prepare internship report	1.3.4 Benefits to teachers during and after service 1.4 Leading practices 1.4.1 Motivating teachers 1.4.2 Leadership styles and practices of head teacher/principal 1.5 Monitoring and evaluation 1.5.1 Monitoring system and feedback 1.5.2 Evaluation of school 1.5.3 Performance evaluation of teachers 1.6 Preparation of in-depth case study in any one areas of planning, managerial and leadership practices of cooperating higher secondary school/campus 1.7 Preparation of internship report

Component 2: Teaching Practice

Specific Objectives	Activities
• Prepare observation guidelines for collecting information during observation of teaching by school/campus teachers • Collect pertinent information during observation of teaching • Analyze them to find out good practices that can be shared among the peers • Prepare good lesson plans for micro-teaching with teaching aids • Prepare good lesson plans for teaching at school/campus using appropriate instructional techniques with teaching aids • Observe and record the teaching of their peers • Analyze the teaching of peers and find the difference between their observation and that of campus supervisor • Find good practices of teaching demonstrated by their peers and adopt and adapt according to their needs • Prepare report of teaching practice	2. Teaching Practice Activities (6 weeks) 2.1 Experience as a learner 2.1.1 Preparation of observation guidelines for observing the teaching of teachers 2.1.2 Observation of teaching of effective teachers of cooperating schools/campuses 2.1.3 Analysis of information collected during observation of teaching 2.1.4 Identification of good practices and lessons learnt 2.1.5 Experience sharing of brief observation report of teaching at their own campus 2.2 Experience as a teacher in micro-teaching practice using lessons learnt during observation 2.2.1 Planning micro-lessons for developing specific skills 2.2.2 Teaching five micro-lessons 2.2.3 Post micro-teaching consultation 2.3 Peer teaching practice on campus 2.3.1 Preparation and teaching of 10 lessons using different methods and materials in real classroom of the campus 2.3.2 Post-teaching discussion and feedback 2.4 Experience as a full-teacher at cooperating higher secondary school/campus 2.3.1 Preparation of full lessons in consultation with campus supervisor and teach 20 lessons in real classroom of schools 2.3.2 Preparation of instructional aids

	2.3.3 Teaching with observation of campus supervisor and feedback in selected lessons and with observation of their peers in most of the lessons 2.3.4 Feedback of the campus supervisor and peers 2.3.5 Re-planning and re-teaching 2.5 Test construction, administration and analysis and Interpretation of Test Results

Component 3: Organizing Seminar

ecific Objectives	Activities
• Organize seminar • Prepare seminar report	3. Organizing seminar (1 week) 3.1 Campus level experience sharing program to share their experiences gained through observation of teaching of teachers of higher secondary school/campus 3.2 Seminar at cooperating higher secondary school/ campus in which each student will present the seminar paper in a synoptic way.

Component 4: Preparation Comprehensive Practicum Report (1 Week)

4. Guidelines for Conducting Major Activities

4.1 Orientation of Practicum

- Conduct a workshop for those campus tutors/supervisors who will be involved in practicum and it will be facilitated by experts from Faculty of Education and/or Chairperson of practice teaching instruction committee of respective campus
- Conduct orientation of EPM students by EPM campus supervisors addressing three components

4.2 Requirements to be fulfilled by the student-teachers (Daily attendance is compulsory during practicum period)

- On-campus activities
  - Participation in orientation program
  - Preparation of operation plan for conducting internship at cooperating higher secondary school/campus
  - Preparation of guidelines for observing teaching
  - Micro-teaching practices with the support of campus supervisor: Let the students include those skills or competencies identified in the teaching of school/campus teachers in their micro-teaching lessons.
    Teach those lessons to develop teaching skills using the micro-teaching cycle
  - Campus level experience sharing: Students will share their experiences which they will utilize for improving their teaching competencies

For this, students will prepare a brief report from the observation of teaching of school/campus teachers focusing on the lesson learnt which will be useful for improving their teaching

- Activities to be carried at cooperating higher secondary schools/campuses

- Observation of teaching of school or campus teachers
- Study of managerial activities and leadership roles of head teacher/principal of cooperating school/campus
- Preparation of at least 20 lesson plans using variety of instructional techniques
- Preparation of different instructional aids and materials
- Teaching of at least 20 lessons (Prepare lessons using different instructional techniques with the support of campus supervisor)
  Improve the lessons through continual repetitions with the suggestions of campus supervisor and concerned subject teacher
- Teach in related classes
- Develop subjective (long answer questions 10, short answer question 20) and objective tests (40 MCQ) considering revised bloom taxanomy and teaching subject
- Administer the tests (subjecti and MCQ test)
- Analyse and interpret the test result

- Observation of at least five lessons of peers' teaching and preparation of its report after analyzing the results with feedback
- Preparation of a report of in-depth case study
- Organizing seminar at cooperating higher secondary school/campus or their own campus
- Report preparation along with the record of all the activities conducted during practicum period.

4.3 Student-teachers should be regarded as unpaid full-time teachers of the school/campus and are required to be free from all other commitments during the school/campus day; they are also expected to make themselves available for extra-curricular responsibility when requested to do so.

4.4 Prepare a comprehensive practicum report including internship, teaching practice and seminar reports and submit it to the concerned department (Dept of EPM) for evaluation.

5. Evaluation of Practicum

The internal supervisior and external examiner must evaluate performance of students' teaching practice and practicum activities independently. Each student must obtain 50% score in internal and external evaluation separately to pass the practicum course.

Students admitted to the blended/online mode must be engaged in compus micro and peer teaching activities virtually under guidance and supervision of the subject teacher/internal supervisor. However, they must teach 30 lessons in the real classroom (face to face) of cooperating school/campuses chosen by themselve with the permission of Department of Teaching Practice of Campus/Department and must record the videos (at least 10) of real classroom teaching activities and submit the video record to the internal supervisor. Final external examination will be conducted in the school/campus located near by the Department/Campus running blended/online classes. For final external evaluation, the student must attend the concerned Department and teach at least one lesson in ther real classroom of schools/campuses selected by the the Department of Teaching Practice.

Internal and External Evaluation of the Practicum

Main Components	Headings	Internal Evaluation (60%)		External Examination (40%)
		Internal Supervisor (50%)	Concerned teacher of cooperating school or campus (10%)	
Internship	Internship report	5	5	5
	In-depth case study report	5	-	5
Teaching Practice	Lesson plan and teaching aids	5	-	5
	Micro-teaching practice(with lessons)	5	-	-
	Peer teaching in campus	5		
	Teaching performance in school/campus	5	5	5
	Peer observation and its report	5	-	5
	Construction and analysis of test result	5		5
Organizing Seminar	Seminar	10	-	10
	Total	50	10	40

Note: Final score will be adjusted automatically according to Semester Examination Rules if there is a variation of 20% or more between internal and external ecaluation.

6. Recommended Books and Reference Materials

American Psychological Association.(2009). *Publication manual of American Psychological Association*. (6th ed.). Washington DC: APA.

Baharain Teachers College. (2008). Teaching practice: Student teacher handbook. Baharain: Baharain University http://www.btc.uob.edu.bh/UltimateEditorInclude/UserFiles/StuTeach%20TP1.pdf (Retrieved 8/23/2015)

Cohen, L., Menion, L., & Morrioson, K.,(2010). *Teaching practice*. India: Routledge.

School of Education. (2013). *Teaching practice handbook.* Cape Town: University of Cape Town

Faculty of Education. (2014). *Teaching practice handbook.* Hongkong: The University of Hongkong. http://web.edu.hku.hk/community/school-university-partnerships/teaching-practice/teaching-practice-handbook (Retrieved 8/23/2015)

SN. Ed. 542: Practicum in Special Needs Education Nature of the course: Practical
Course No.: SN. Ed.542 Credit hours: 3 (2 on Campus and 1 Off Campus)
Level: M.Ed. Duration: 12 weeks
Semester: Fourth Teaching Hours: 64 on Campus

1. Course Description

This course is designed to equip students for becoming good teachers and practitioners of Special Needs/Inclusive Education by enabling them to develop teaching competencies while teaching children with special needs in real classrooms and at the same time helping them to develop skills related to management of special schools and integrated schools. The course has three major parts. First part deals with involvement of the students in micro-teaching and teaching school subjects in special schools and integrated schools. Second part is related to exposure visit of students to organizations serving children with special needs and lessons learnt from it. In the third part, students' engagement in the study of institutional practices in special school and integrated schools will be focused. In this course, active participation of students will be ensured through experiential and work-oriented learning exercises.

2. General Objectives

The course is designed to accomplish the following general objectives:

- To provide the students with an opportunity to have hands-on experience of real teaching at special school or integrated school after gaining prerequisite knowledge and skills by observing teaching of teachers in special school or integrated school and teaching micro-teaching lessons
- To expose the students to the activities of organizations serving children with special needs
- To prepare students with abilities to analyze. share and learn different dimensions of teaching practice at special school or integrated school
- To provide opportunities to students to work as interns for gaining practical experiences on management of teachers, students and instructional facilities in special schools and integrated schools
- To enable the students to prepare in-depth case study in one of the critical areas of special school/integrated school

3. Specific Objectives and Activities

Part I: Teaching Practice

Specific Objectives	Teaching Practice Activities (8 weeks)
• Prepare observation guidelines for collecting information from teaching of teachers of special schools and integrated schools • Collect pertinent information during observation of teaching • Prepare a brief report of collected information to find out good practices and sharing it among the peers • Prepare good lesson plans for	1. Experience as a Learner 1.1 Preparation of observation guidelines for observing the teaching of teachers who are teaching the children with visual impairment, hearing impairment, intellectual disability and physical disabilities in a special school or an integrated schools or a school with resource class 1.2 Observation of teaching of effective teachers of special school/integrated school/campus/ school with resource class at least one from each area of special needs mentioned in 1.1

micro-teaching with teaching aids • Conduct micro-teaching practice in their campuses following micro-teaching cycle • Prepare good lesson plans for teaching using appropriate instructional techniques with teaching aids • Observe and record the teaching of their peers • Analyse the teaching of peers and find the difference between their observation and that of campus supervisor • Find good practices of teaching demonstrated by their peers and provide feedback to them • Construct and administer a test which is applicable to students with special needs • Analyze the test results and provide feedback to students • Prepare report of teaching practice	1.3 Analysis of information collected from observation of teaching 1.4 Identification of good practices and lesson learnt 1.5 Experience sharing of brief observation report of teaching at their own campus 2 Experience as a Teacher in Micro-teaching Practice Using Lessons Learnt during Observation 2.1 Planning micro-lessons for developing specific skills focusing on simulation and role play 2.2 Teaching 5 micro-lessons following micro-teaching cycle 3 Peer teaching practice on campus 3.1.1 Preparation and teaching of 10 lessons using different methods and materials in real classroom of the campus 3.1.2 Post-teaching discussion and feedback 4 Experience as a full-teacher at special school/ integrated school/campus/school with resource class 4.1 Preparation of full lessons at least 5 lessons from each area of disability mentioned in 1.1 in consultation with campus supervisor 4.2 Teaching at least 20 lessons 4.3 Preparation of instructional aids 4.4 Teaching at assigned schools along with observation of campus supervisor and feedback in selected lessons and with observation of their peers in most of the lessons 4.5 Feedback of the campus supervisor and peers 4.6 Re-planning and re-teaching 4.7 Test construction, administration and analysis of test results 4.7.1 Construction and administration of a test including subjective and objective items applicable to children with special needs 4.7.2 Analysis and interpretation of test results 4.8 Preparation of teaching practice report

Part II: Observation of Organizations Serving Children with Special Needs (1 week)

Specific Objectives	Activities
• Prepare guidelines for observing organization serving children with special needs • Prepare observation report based on	1. Preparation of observation guidelines 2. Observation of one of the following organization Autism Care Centre or Celebral Palsy Centre or Down Syndrome Society or any other organization

observation data • Share observation report along with lesson learnt from observation of organization serving children with special needs	with school for children with special needs 3. Preparation of observation report along with lesson learnt 4. Sharing of observation report among the peers, internal supervisor and campus teachers

Part III: Institutional Practices at Cooperating Schools

Specific Objectives	Management of Special Schools and Integrated Schools (2 weeks)
• Examine teacher management and development activities being practiced in special schools and integrated schools • Point out problems and issues in teacher management and development in special schools and integrated schools • Assess the ways of managing instructional facilities at special schools and integrated schools • Explain the ways of managing residential facilities, scholarships and health and nutrition of students in special schools and integrated schools • Prepare an in-depth case study report • Prepare internship report	1.8 Teacher management and development in special schools and integrated schools 1.1 Teacher selection practices 1.2 Teacher development practices 1.3 Problems and issues in teacher management and development 1.9 Ways of managing instructional facilities at special schools and integrated schools 2.1 Classroom management in special schools and integrated schools 2.2 Equipment and resources in special schools and integrated schools 1.10Managing students in special schools and integrated schools 4. Residential facilities 5. Scholarships to the students 6. Health and nutrition • Preparation of in-depth case study report in any one critical area of special school/integrated school/school with resource class 1. Source of information: 1. Interview with individual student 2. Shadowing/following the student 3. Resource teacher 4. A micro-level community survey • Preparation of internship report

Note: The figures within parenthesis indicate approximate teaching hours allocated to respective units.

Component 4: Preparation Comprehensive Practicum Report (1 Week)

4.Guidelines for Conducting Major Activities

4.1 Orientation of Practicum

- Conduct a workshop for those campus tutors/supervisors who will be involved in practicum and it will be facilitated by experts from Faculty of Education and/or chairperson of practice teaching instruction committee of respective campus
- Conduct orientation of practicum for students by campus supervisors addressing three parts of the course

4.2 Requirements to be fulfilled by the student-teachers (Daily attendance is compulsory during practicum period)

- On-campus activities

- Participation in orientation programme
- Preparation of guidelines for observing the teaching
- Campus level experience sharing: Students will share their experiences which they can utilize for improving their teaching competencies (For this, students will prepare a brief report from the observation of teaching of school/campus teachers focusing on the lesson learnt which will be useful for improving their teaching)
- Micro-teaching practices with the support of campus supervisor: Let the students include those skills or competencies identified in the teaching of teachers of special schools and integrated schools in their micro-teaching lessons.
  Teach at least 5 lessons to develop teaching skills using the micro-teaching cycle
- Preparation of guidelines for observing the organization serving children with special needs
- Campus level sharing of observation report
- Peer teaching practice on campus for two weeks
- Prepare 10 lessons and teach peer in real classroom using different methods and materials

- Activities to be carried at an organization serving for children with special needs
  - Observation of organization using the guidelines
  - Collection of data/information through guidelines and informal discussion with concerned officials
- Activities to be carried at special school/integrated school/school resource class
  - Observation of teaching of school or campus teachers
  - Study of management of special schools and integrated schools
  - Preparation of at least 5 lessons in different area of disabilities and total 20 lesson plans using variety of instructional techniques
  - Preparation of teaching aids
  - Teaching of at least 20 lessons (Prepare lessons using different instructional techniques with the support of campus supervisor
    Improve the lessons through continual repetitions with the suggestions of campus supervisor and concerned subject teacher
- Observation of at least five lessons of peers' teaching and prepare its report after analyzing the results and provide knowledge of results to both students
- Preparation of a report of in-depth case study
- Report preparation along with the record of all the activities conducted during practicum period

4.3 Student-teachers should be regarded as unpaid full-time teachers of the school/campus and are required to be free from all other commitments during the school/campus day, and are expected to make themselves available for extra-curricular responsibility when requested to do so.

4.4 Prepare a comprehensive practicum report including teaching practice, observation of organization serving children with special needs, institutional practices in special school/integrated school and submit it to concerned department for evaluation.

5 Evaluation of Practicum

The internal supervisior and external examiner must evaluate performance of students' teaching practice and practicum activities independently. Each student must obtain 50% score in internal and external evaluation separately to pass the practicum course.

Students admitted to the blended/online mode must be engaged in compus micro and peer teaching activities virtually under guidance and supervision of the subject teacher/internal supervisor. However, they must teach 30 lessons in real classroom (face to face) of cooperating school/campuses chosen by them with the permission of Department of Teaching Practice of

Campus/Department and must record the videos (at least 10) of real classroom teaching activities and submit the video records to the internal supervisor. Final external examination will be conducted in the school/campus located near by the Department/Campus running blended/online classes. For final external evaluation, the student must attend the concerned Department and teach at least one lesson in ther real classroom of schools/campuses selected by the the Department of Teaching Practice

Internal and External Evaluation of the Practicum

Main Activities	Description of activities	Internal Evaluation		External Examination (40%)
		Internal Supervisor (50%)	Concerned Teacher of Cooperating School or Campus (10%)	
Teaching Practice	Experience as a learner • Observation report • Sharing of experiences	5	-	5 (Based on report)
	Experience as a teacher in Micro-teaching practice • Lesson plan • Micro-teaching practice	5	-	-
	Peer teaching in the Department	5		
	Experience as a full-teacher at special schools and integrated school/campus • Lesson plan • Teaching aids • Classroom performance • Report on feedback to peers • Test construction, administration and analysis of test results	15	10	15
Observation of organization serving children with special needs	• Observation report • Presentation of report	5	-	5
Internship	Internship report	10	-	10
	In-depth case study report	5	-	5
	Total	50	10	40

Note: Final score will be adjusted automatically according to Semester Examination Rules if there is a variation of 20% or more between internal and external ecaluation.

Students' performance in all headings mentioned in above table should be evaluated addressing practical activities as well as their respective report. Detailed evaluation forms will be developed for evaluating the performance of the students in three different parts.

6 Recommended Books and Reference Materials

American Psychological Association.(2009). *Publication manual of American Psychological Asssociation*. (6th ed.). Washington DC: APA.

Baharain Teachers College. (2008). Teaching practice: Student teacher handbook. Baharain: Baharain University http://www.btc.uob.edu.bh/UltimateEditorInclude/UserFiles/StuTeach%20TP1.pdf (Retrieved 8/23/2015)

Cohen, L., Menion, L., & Morrison, K. (2010). *Teaching practice*. India: Routledge.

Department of Education. (2008-2009). *Special Education Practicum Handbook*. Staten Island: College of Staten Island/CUNY. http://csivc.csi.cuny.edu/education/files/pdf/edp630_practium_handbook.pdf

Faculty of Education. (2014). *Teaching practice handbook.* Hongkong: The University of Hongkong. http://web.edu.hku.hk/community/school-university-partnerships/teaching-practice/teaching-practice-handbook (Retrieved 8/23/2015)

School of Education. (2013). *Teaching practice handbook.* Cape Town: University of Cape Town

The Open University (Posted in 27th August 2015). *Learning to teach: Becoming a reflective practitioner.* http://www.open.edu/openlearn/education/learning-teach-becoming-reflective-practitioner/content-section-2.1

Ed. 544: Thesis Writing Nature of course: Practical (Specialization)
Course No: Ed. 544 Credit Hours: 6 (Course work Proposal 3,
Level: M.Ed. Thesis writing 3)
Semester: Fourth Teaching hours: 48 (For Part A)
Duration: Part A: Course work (Essentials of thesis/academic writing and proposal development and duration: 3 months
Part B: Thesis Writing and duration: 3 months

1. Course Description:

This is a ***specialization course*** for master's degree students that aim to provide them with both theoretical knowledge and hands-on experience for conducting original research. Accomplishing this work, each student will produce a thesis on some novel issues of their specialization, which will contribute to their fields of knowledge.

This course is divided into two parts: Part A. Course work (Essentials of thesis writing and proposal development): Credit -3, Credit hours: 48, and duration: 3 months)

Part B. Thesis: 3 Credit (expected duration: 3 months)

Part A. Course work (with proposal development)

The first part is a taught course, an integral part of thesis writing course. It is also considered as a part of specialization course, which will be delivered by the subject teacher(s) assigned by the concerned department and/or campus. Generally, for each group or section of the students, one or more teachers who have sound knowledge and skills for doing research will be assigned to this work. This course focuses on writing and research skills required for successful completion of thesis writing course. During course work, teachers will facilitate students to develop proposal, prepare data collection tools and write thesis. The workload can be divided between the teachers accordingly, if two or more teachers are assigned for facilitating one group of students (generally one section).

2. General Objectives:

The primary objective of the coursework is to equip students with the essential knowledge and abilities to compose each part of the proposal. To achieve this, objective both learning and writing will occur concurrently. During the writing of each section, students will create their own illustrative examples and generate the necessary written components, which they will subsequently integrate into their proposal.

3. Specific Objectives and Contents

Specific Objectives	**Contents (***Total 48 hrs time duration allocated under time management schedule***)**
• Develop basic ideas and skills for writing thesis including developing paragraph, avoiding plagiarism and using academic vocabularies and	**Essential of Thesis/Academic Writing** 1. Ways to improve academic writing. 2. Paragraph structure (topic sentence, supporting sentences, concluding and transition sentence) 3. Exercise for paragraph writing 4. Exercise for paraphrasing and avoid plagiarism

language	
• Develop the skills of writing a research proposal and be able to write introduction section of a research proposal.	**Getting ideas for Writing a Research Proposal** • Selecting research area and topic • Search and relevant literature, find problem, • Dissect and analyse research problem, • Raise Research questions and • Formulate research objectives. 1. Write background/context of the study 2. Write statement of the research problem 3. Write and refine research objectives and research questions 4. Write significance of the study 5. Write Delimitation of the study
• Learn techniques of reviewing literature and taking notes. • Demonstrate skills for writing review of literature. • Develop conceptual framework.	**Writing Review of Literature** • Review of conceptual, theoretical and empirical literature • Ways for writing review of literature • Exercise for writing review of literature in class • Exercise for developing and writing conceptual framework
• Develop skills for writing research method and procedures • Prepare data collection tools	**Writing research methodology** Choosing appropriate research methods and procedures Write about research approach and design Identifying study areas/sites and population/participants Exercise for writing about study population/research participants Exercise for write about sampling frame and sampling design for quantitative study Developing and writing criteria for selecting informants/research participants in qualitative study Choosing data collections methods and tools Exercise for preparing data collection tools based on research objectives and research questions Writing data collection and analysis procedures Writing ethical procedure
• Develop the research proposal for master's thesis following given format/guidelines. • Present the proposal in a systematic way. • Apply the APA style of writing the proposal in an	**Preparing complete proposal for thesis writing based on following format.** • **Preliminary Part** • **Cover page** with the title, details of the researcher, the level for which it is written, and the department/campus. • **Table of Contents** • **Acronyms/Abbreviations**

organized way.	**Chapter I: Introduction** 1. Background of the Study 2. Statement of the Problem 3. Objectives of the Study 4. Research Question/s (if necessary) 5. Significance of the study 6. Delimitations of the Study 7. Definition of the Key Terms **Chapter II: Review of related literature and conceptual framework** 1. Review of Related Literature 1.1.Theoretical 1.2.Empirical 2. Conceptual Framework **Chapter III: Methods And Procedures** 3.1 Research design (qualitative, quantitative and mixed design) 3.2 Population and sample 3.3 Sampling strategy and procedures 3.3 Research tools 3.4 Sources of data (primary and secondary) 3.5 Data collection procedures 3.6 Data analysis procedures 3.7 Ethical considerations **Reference Refences** (APA format) **Appendices (**Questionnaire, Interview questions or any other relevant tools etc.)

Time management and schedule:

The department will make a routine for this coursework in the following way:

- Each class will last for 2 hours, and there will be two classes in a week.
- In this way, the course and proposal development tasks will be completed in 48 contact hours in 12 weeks (3 months).

Organization of learning activities and teacher's facilitation:

The learning activities and tasks will be divided according to the following weekly activities:

Academic writing

Week 1.1. General structure of a chapter section and ways for improving academic writing

This week, students will become familiar with how to structure a section with appropriate paragraphs and sentences. The teacher will provide some relevant examples of a section of writing (e.g. introduction) with paragraphs and suggest students practicing to write a few paragraphs accordingly. Generally, each section of writing comprises of a number of embedded ideas, and for each idea, the

students make at least one paragraph. The sentences in paragraphs should be simple, meaningful and formal without jargon.

There are several strategies and ways to improve academic writing skills. Teacher will discuss about essential of academic writing and discuss on writing style and ways for improving writing focusing on following tips with examples:

- Read actively, widely and extensively,
- Paraphrase and summarize after reading,
- Plan and organize writing,
- Practice writing with contents and arguments,
- Write formally and with clarity and consistence,
- Write precisely, concisely and coherently,
- Use academic vocabulary and use of academic language,
- Avoid informal vocabulary/colloquialism and spoken language,
- Avoid contractions (aren't, don't..)
- Avoid repetition (use different sentence structures),
- Write with source/evidence,
- Avoid plagiarism,
- Take care of grammar and punctuation,
- Follow writing process: getting ideas, reading and note-taking, pre-writing/free writing, make outline/skeleton, writing draft, revising, editing and finalizing;
- Get feedback from teachers and others/experts

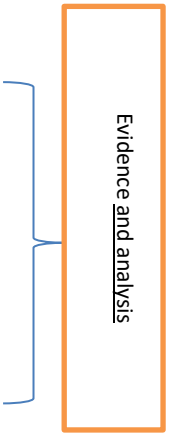
Paragraph structure and paragraph writing

A paragraph should consist of a topic sentence or thesis sentence that introduces the main idea. Following the topic sentence, it is essential to provide evidence and arguments that support the main idea. This evidence can be in the form of facts, examples, statistics, or logical reasoning. The paragraph should conclude with a sentence that summarizes the main point and possibly transitions to the next paragraph if needed. This concluding sentence should bring closure to the paragraph and reinforce the central idea.

If you are writing an 'introduction' section about learning style of students, first you should decide how many ideas about learning style you want to convey and then you should make the paragraph accordingly. Let's say, you have four ideas – 1) learning style is personal which differ from person and person, 2) learning style affects the memory of learning, 3) learning style can be both in-born and acquired, and 4) learning style is a neglected topic in educational research. Then, you can make at least one paragraph for each of these ideas. Example of the first paragraph is below (you can practice remaining paragraph accordingly):

Example

Learning style is an individual phenomenon which differs from person to person based on their interests and social characteristics (topic sentence). In other words, how students learn best depends upon the ways they prefer to use their sense and motor activities for learning. Research by Kolb (2012), for example, suggests that individuals may have different preferences for learning, such as being more reflective or active in their approach. Additionally, VARK (Visual, Auditory, Reading/Writing, and Kinesthetic) theory (Fleming & Mills, 2002) underscores how students can have varying preferences for receiving and processing information. Considering these differences in learning styles is essential for educators to contextualize their teaching methods and materials to meet the diverse needs of students. In conclusion, acknowledging and addressing these variations in learning styles is crucial for promoting effective and inclusive education (concluding sentence).



Week 1.2. Paraphrasing

In this session, students will learn how to paraphrase others' work in their writing. Paraphrasing is the process of summarizing others' ideas in author's own words. Paraphrasing requires understanding the literature and summarizing the meaning in author's own styles and languages. A proper citation is required to acknowledge the author(s) whose ideas you are paraphrasing. While paraphrasing literature, the students should draw key ideas of the author(s) and write this topic idea in your first sentence, followed by discussion and analysis. The teacher first shows the relevant examples and asks the students to practice paraphrasing the literature they want to use.

Example

Original: "One of the most significant issues in learning to learn is an individual's taking the responsibility for his/her own learning. The individuals should know what their own learning styles are and what characteristics this style has and they should thereby behave according to this style. In this way, the individual can acquire the constantly changing and increasing amount of information without need for the assistance of others. When the learner takes the responsibility of his/her own learning, s/he attributes meaning to the process of learning. S/he develops an understanding of his/her own form of learning style and becomes much more satisfied with the environment s/he interacts with. Every opportunity for learning is a chance for him/her." (Gilakjani, 2012, p. 104)

Paraphrased: Learning becomes easier when people understand how they learn best and take charge of their own learning (Gilakjani, 2012). This means knowing their learning style and adjusting their study habits to match it. When they do this, they can learn more on their own without needing as much help from others, making the learning process more meaningful and satisfying.

Writing introduction section of the proposal

Week 2.1. General overview and structure of the master degree thesis

This week, students will become familiar with the structure and components of the master's thesis.

The teachers and students will collect sample theses from the department or library. The teacher will divide students into smaller groups (3-4 students in each group) and ask them to review the structure of the thesis. The teacher will ask students to review the table of contents carefully and make a list of components that should be included in the thesis.

When students are familiar with the basic structure of the thesis, the teacher will ask them to review the title of each thesis and ask them to come up with some areas or issues of their interest in the next class that they want to explore through their masteral research. The teacher will encourage students to bring specific, local, and contextual issues rather than a topic or issue of greater scope. The teacher will encourage students to be "microscopic rather than telescopic'.

Week 2.2. Selecting a research area and research topic

In this session, each student will share their research topic or issues of interest individually. Then, the teacher will provide feedback on their examples, first generally, then specifically.

The general feedback could be as follows

Be as specific as possible, and bring unique and novel ideas:

Example

Less appropriate - Learning problems of students in mathematics classroom in Nepal

Appropriate - Learning problems of Chepang students in Grade 5 arithmetic

Less appropriate - Students' knowledge, skills and attitude towards balanced diet

Appropriate - Cultural practices of food and nutrition among Tharu students

Week 3.1. Narrowing the topic with novel and unique issue(s)

Continuing the process of sharing, revising, and editing, the students will be able to bring novel and specific research issues. Sharing, discussion, and feedback will be the general pedagogical procedure in the class.

Week 3.2. Writing objective and research questions

Although the objectives and research questions can be framed in different ways, the basic idea to teach students is to make one general objective and break down this objective into two or three research questions. For this process, the teacher will first show examples in the following way:

Example

Objective:

- To explore the common cultural practices of food and nutrition among Tharu communities.

Research questions:

- What are the common foods and nutrients Tharu households consume in a typical week?
- What are the cultural and ethnic food types and habits in Tharu communities?
- In what ways do cultural practices of food and nutrition vary between older and younger generations in Tharu communities?

With such examples, the teachers will ask students to formulate their objectives and research questions and share them in the class. The teacher will provide feedback to each student and mentor the needy ones to finalize their objectives and research questions.

Week 4.1. Refining objective and research questions

Continuing from the previous week, students will share their examples and receive feedback from the teachers. This process will help students finalize their working title, objectives, and research questions, which are the core components of their proposal.

Week 4.2. Writing Introduction (Background and statement of the problem)

The teacher will show examples of writing the background and statement of the problem sections and encourage students to practice this kind of writing.

Background:

This part sets the scene for students' work. The teacher will ask students to write about the context and available knowledge in the field, then gradually narrow down the writing towards the issues under study.

Example

In the context of primary education in Nepal, understanding and catering to the diverse learning styles of students is of paramount importance (Smith & Sharma, 2022). Nepal's primary school system encompasses a wide range of linguistic and cultural backgrounds, presenting a unique challenge for educators (Dahal & Rai, 2019). To optimize the learning experience for these young learners, it is crucial to explore how different learning styles manifest within this diverse landscape (Koirala et al., 2020). By delving into the learning preferences and strategies employed by primary-grade students in Nepal, this research proposal seeks to contribute valuable insights to the field of education and inform the development of more effective and inclusive teaching practices tailored to the specific needs of these students.

Week 5.1. Writing the statement of problems

In this section, starting with what knowledge is available in the field, the teacher will ask students to write what is 'lacking' in the field of knowledge. The main focus is to specify what is little known, and what is questionable.

Students can phrase the problem sentences in the following ways:

Questions have been raised about the …….

Scholars have long debated the….

Previous studies of X have not fully dealt with …..

Previous published studies are limited to …

Up to now, far too little attention has been paid to …

There is little published knowledge on …

What is less clear is the nature of …..

Much uncertainty still exists about ……

Example

There are multiple issues and knowledge gap in the field of students' learning style in primary school. Primarily, questions have been raised about the effectiveness of current teaching methods in addressing the diverse learning styles of primary school students (Smith & Jones, 2021). Scholars have long debated the optimal approaches to accommodate these varying styles within the classroom (Brown & Patel, 2019). Previous studies of learning styles among primary school students have not fully addressed the influence of cultural and linguistic factors on their learning preferences (Gupta et al., 2020). Previous published studies primarily focus on a limited range of learning style factors and lack a comprehensive examination of their impact on academic performance (Lee & Kim, 2018). Up to now, far too little attention has been paid to understanding the specific learning preferences of primary school students in our regional context (Khan & Rahman, 2022). There is limited published knowledge on how socioeconomic factors intersect with learning styles among primary school children (Wang & Zhang, 2020). What is less clear is the types of learning styles students use while preparing for exams. This knowledge is rare and minimal in the context of Nepal's school education.

Week 5.2. Writing significance of the study, delimitations and operational definition

Significance of the study

The students can write the significance in two to three paragraphs:

- First paragraph - What knowledge are they contributing to the field?
- Second paragraph - Who are the potential users of their work and how do they apply this knowledge?
- Third paragraph - In what ways does their research contribute to policy? or what changes their knowledge bring to the field?

Example

First paragraph - This study aims to make a significant contribution to the field of education by enhancing our understanding of the learning styles of primary school children in Nepal. Existing research in this area has been limited in scope and often overlooks the cultural and linguistic factors that influence the learning preferences of these young learners. This research seeks to fill this gap by providing a comprehensive analysis of the diverse learning styles among Nepalese primary school children. By shedding light on these nuanced aspects of learning, I will contribute to the existing body of knowledge, enabling educators and researchers to develop more effective teaching strategies and support systems tailored to the needs of these students.

Second paragraph - The potential beneficiaries of this work extend to a range of stakeholders, including educators, curriculum developers, policymakers, and parents. Educators can apply the knowledge gained from our study to adapt their teaching methods and classroom environments to better accommodate the diverse learning styles of primary school children in Nepal. Curriculum developers can use our findings to create more inclusive and culturally sensitive educational materials. Policymakers can benefit from our research by using it to inform education policies that foster inclusive and equitable learning environments. Parents can also utilize our insights to better support their children's learning at home, aligning with their unique learning styles.

Third paragraph - This research has the potential to bring about significant changes in the field of education, particularly in the context of Nepal. By providing a evidence-based understanding of learning styles among primary school children, we can inform the development of evidence-based educational policies and practices that prioritize inclusivity and diversity. This knowledge can lead to the creation of more culturally relevant and effective teaching approaches, ultimately enhancing the quality of education for primary school children in Nepal. Furthermore, this research may contribute to the broader discourse on education and diversity, influencing educational policies and practices not only in Nepal but also in other regions facing similar challenges in accommodating diverse learning styles among young learners.

Delimitations

In this sub-section, the teacher asks students to write down the boundaries or scope of their work. This helps clarify what their research will and will not cover.

Example

In this study, I will focus exclusively on high school students in urban areas of Biratnagar City. I acknowledge that there are students in rural areas with potentially different experiences, and they are not within the scope of this research. Additionally, I am limiting my investigation to the learning style and its relationship with academic performance of students and will not cover the ‘effective’ aspects of learning styles that focus on the strategies to learn emotionally.

Operational definitions of key terms

This is not a dictionary definition, but the way students operationalize the terminology. For example, if a student select to carry out this study- Variation in learning styles and learning achievement among primary school children. In this example, three keywords—learning styles, learning achievement and primary children—are to be defined in the ways that the researcher uses them in his/her thesis. For example:

Example

Learning style: Students’ preferred techniques for preparing their exams

Learning achievement - score obtained in the achievement test

Primary school children - students studying in grades 4 and 5.

Writing Literature Review

Week 6.1. Writing conceptual and theoretical literature review

In this section, students will review the conceptual literature related to their topic and problems. For this, they have to identify and retrieve relevant books, journal articles, and policies in the related field. Then they will read and make notes on the ideas and categorize them into some themes. For example, if they are studying 'learning style of primary children in Nepal' their theoretical literature can be categorized into three sections: meaning and concepts of learning styles; types of learning styles, and theories of learning style. Students should write the section in paragraphs. They have to note the following examples while writing the review:

कमसल	राम्रो
भट्टराई) २०७९ (ले आफ्नो अध्ययन 'पुरस्कारले विद्यार्थीको शैक्षिक उपलब्धिमा पारेको प्रभाव' शीर्षकमा गरेको अध्ययनमा शिक्षकहरुले जति विद्यार्थीहरुलाई उत्साह र हौसला प्रदान गर्नुहुन्छ विद्यार्थीहरु त्यत्ति नै सिकाइका लागि उत्प्रेरित र क्रियाशील हुन्छन् भन्ने जानकारी अगाडि ल्याएको छ। यसरी यस अध्ययनले विद्यार्थीहरुलाई प्रदान गरिने सकारात्मक उद्दिपकले सिकाइ सहभागिता र त्यसको प्रभावकारिता मात्र होइन सिकाइ उपलब्धिमा समेत परिमाणात्मक र गुणात्मक परिवर्तन ल्याउन सक्दछ भन्ने तथ्यलाई उजागर गरेको छ।	शिक्षकहरुले जति विद्यार्थीहरुलाई उत्साह र हौसला प्रदान गर्नुहुन्छ विद्यार्थीहरु त्यत्ति नै सिकाइका लागि उत्प्रेरित र क्रियाशील हुन्छन्। भट्टराई) २०७९ (ले गरेको अध्ययनले विद्यार्थीहरुलाई प्रदान गरिने सकारात्मक उद्दिपकले सिकाइ सहभागिता र त्यसको प्रभावकारिता मात्र होइन सिकाइ उपलब्धिमा समेत परिमाणात्मक र गुणात्मक परिवर्तन ल्याउन सक्दछ भन्ने तथ्यलाई उजागर गरेको छ।
Asmelash (2019) mentioned that Heavy social media use can be linked to depression and other mental disorders in teens. (No position, only citation) Heavy social media use can be linked to depression and other mental disorders in teens (Asmelash, 2019). (Little better, but still no position)	Social media has invited several undesirable consequences. For example, social media is linked to with mental disorders such as depression and anxiety (Asmelash, 2019) (Strong position with a topic sentence)

Example of literature review paragraph

Example
Learning styles: Theoretical underpinning Students prefer different learning styles and understanding the learning styles of primary children is important for effective educational practices. Honey and Mumford (1982) proposed a widely recognized model categorizing learning styles into four types: Activist, Reflector, Theorist, and Pragmatist, each characterizing distinct preferences for how students engage with and process information. Furthermore, Gardner's theory of multiple intelligences (1983) has significantly

contributed to our understanding of the diverse ways in which primary children can excel academically, emphasizing individual strengths in areas such as verbal-linguistic, logical-mathematical, and bodily-kinesthetic intelligences. Additionally, Vygotsky's sociocultural theory (1978) has underscored the importance of social interactions and cultural contexts in shaping primary children's learning styles. As we delve into the learning styles of primary children, these influential theories provide a foundational framework for exploring how various teaching methods and strategies can accommodate and optimize their diverse learning preferences (Honey & Mumford, 1982; Gardner, 1983; Vygotsky, 1978).

Considering these theoretical knowledge bases, I use Gardner's theory of multiple intelligences and Vygotsky's sociocultural theory to look into the learning styles of students. As I understood from these two theories, I understand that learning styles align with the intelligence dimension that is socially constructed. Therefore, I will look into verbal, visual-spatial and kinesthetic learning, focusing on how these strategies work in a sociocultural environment.

Week 6.2. Writing review of empirical literature

In this section too, the students will identify, collect and review the published (research-based journal articles) and unpublished research works (such as theses and research reports), read them carefully, make notes, compare and categorize the major ideas into a few groups, and draw themes. Then, they will write the empirical review under each theme.

Example

Learning style in practice

Empirical studies on the learning styles of primary children in Nepal have yielded valuable insights into the educational landscape of the country. Sharma and Rai (2015) examined the prevalence of different learning styles among primary school students in urban and rural areas of Nepal, revealing notable variations. Their findings indicated that primary children in urban schools tend to exhibit a preference for kinesthetic learning styles, while those in rural areas lean towards visual and auditory styles. Similarly, a more recent study investigated the influence of cultural factors on learning styles among primary children in the Kathmandu Valley (Gurung & Shrestha, 2020). Their research highlighted the significant impact of cultural practices, such as community-based learning, on shaping learning preferences. Furthermore, another study explored the relationship between teacher instructional methods and the learning styles of primary students in Nepal (Bhattarai & Adhikari, 2017) . They found that an interactive teaching approach aligns well with the kinesthetic and auditory learning preferences commonly observed among Nepali primary children. These empirical studies underscore the importance of considering regional and cultural factors when designing effective educational strategies tailored to the learning styles of primary children in Nepal (Sharma & Rai, 2015; Gurung & Shrestha, 2020; Bhattarai & Adhikari, 2017). While this research focuses on generic aspects of learning style of children, there is a knowledge gap on how students use their learning styles while preparing for exams. In my research, I will contribute to this knowledge gap.

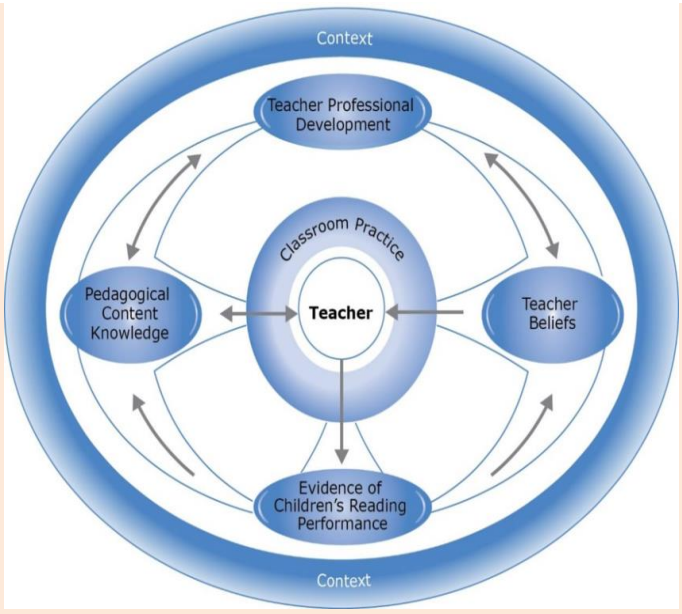
Week 7.1. Preparing a conceptual framework

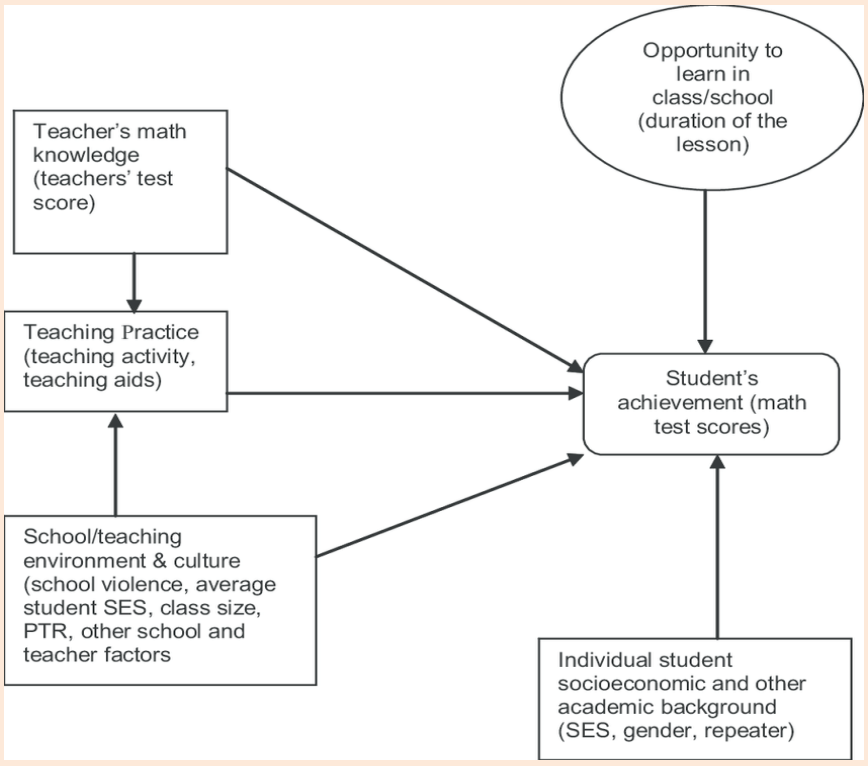
Conceptual framework is generally a diagrammatic representation of the study, which visualizes key concepts and variables and their potential relationships. The following points should be taken into consideration while designing the conceptual framework:

- Identify key concepts and variables; define relationships among them.

- Use clear, concise labeling.
- Ensure alignment with research goals.
- Maintain consistency and precision.
- Seek feedback for clarity and accuracy.

Example: Conceptual framework for the study of continuous professional learning of teachers





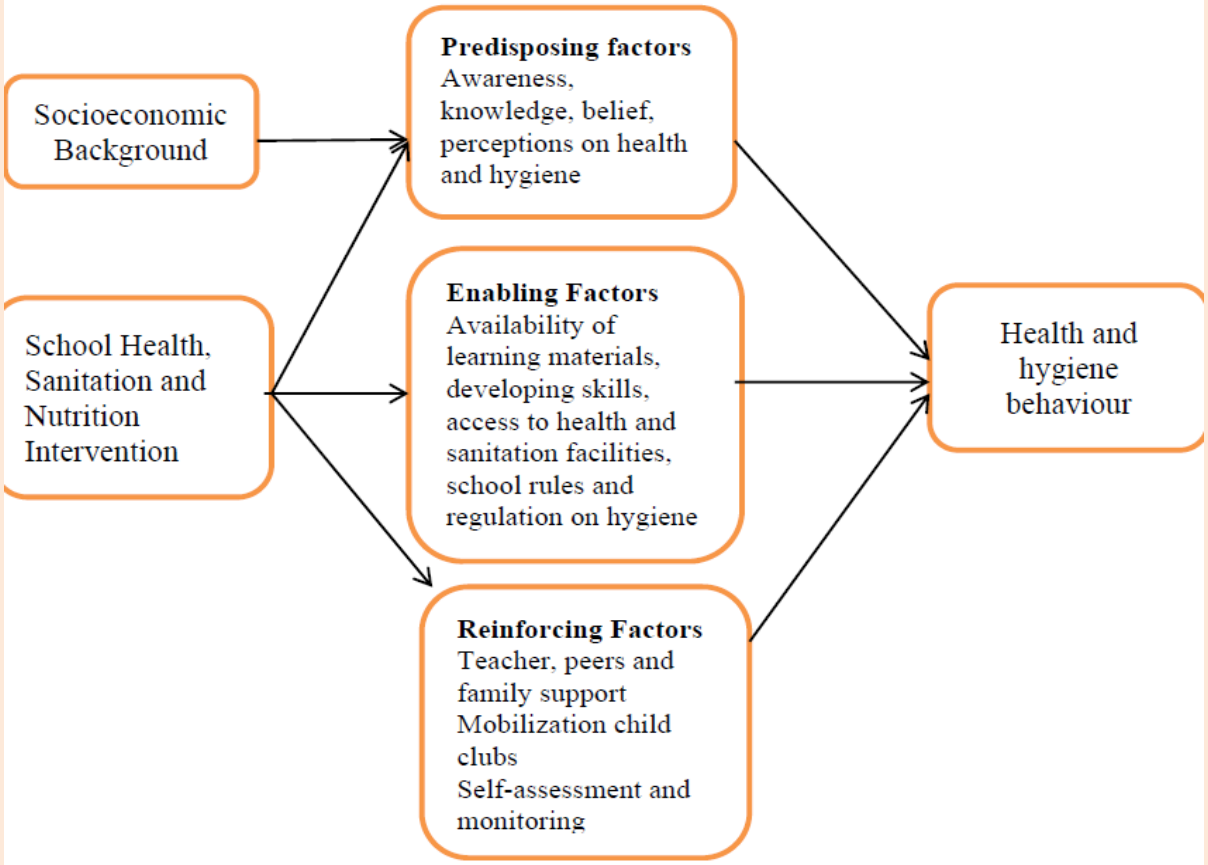
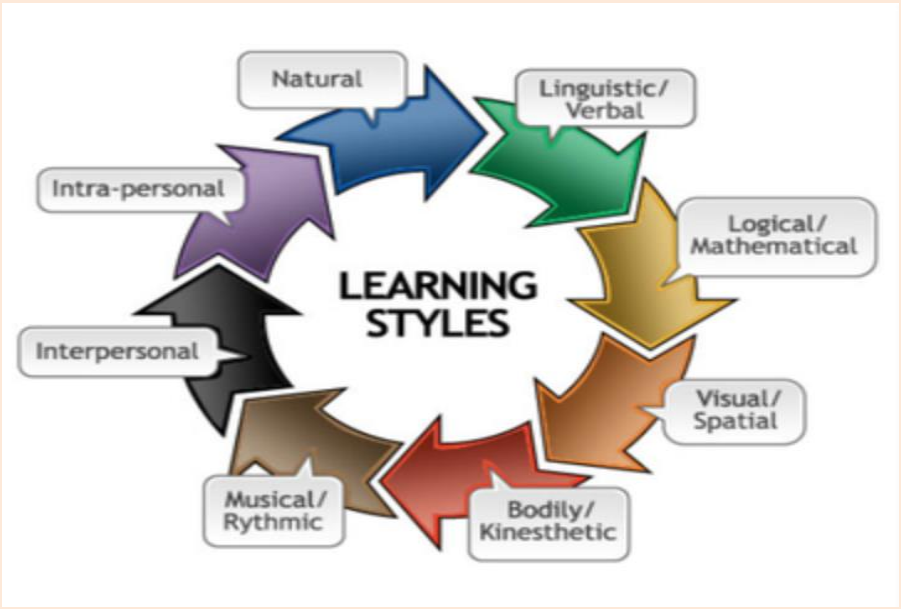


Fig.: Conceptual framework indicating how various factors and conditions influence health hygiene behaviour



Writing methodology

Week 7.2. Writing research design, population and sampling

In this section, students should indicate which research design they will use (qualitative, quantitative, or mixed). They will read the research methodology book carefully. There are several designs under qualitative, quantitative, and mixed methods and students will appropriate design for their study. Students will identify the target participants from whom they expect to collect the data. This is their population. They will read various sampling strategies from the research methodology book and choose the appropriate one for their research. If they are doing a quantitative survey research, they need to calculate the sample size using some formula. With this information, they will write the paragraph.

Example

Research Design: For the study on the learning styles of primary school children in Nepal, a parallel mixed-methods research design will be employed. This design will enable me to gather both quantitative and qualitative data to gain a comprehensive understanding of the topic. The study will consist of two main phases: a quantitative survey to assess the prevalence of different learning styles and a qualitative phase involving interviews and observations to provide deeper insights into the factors influencing these learning styles.

Population: The target population for this research will be primary school children in Nepal in Chandragiri municipality. Considering the fact that students are studying in both public and private schools in this municipality, samples will be drawn from both schools to ensure representation. The age range will encompass primary school children, typically aged between 6 and 12 years old. Since primary education in Nepal is provided in various languages and follows different curricula, this diversity will be considered when selecting the sample to ensure a broad representation of students.

Sampling: To ensure the research's validity and generalizability, a stratified random sampling technique will be employed. First, a list of public and private schools will be prepared, and then, from each stratum, a random sample of ten public and ten primary schools will be selected. Using Yate's formula, a total of 400 sample sizes are decided. Using a lottery method, 200 samples will be drawn from the list of children studying in 10 public schools and another 200 from 10 private schools.

For the qualitative interview, one student of age 12 studying in grade 5 will be purposefully selected from each school for the interview, totaling 20 students. In so doing, five girls and five boys will be selected from each school type.

Criteria for selecting research participants in qualitative study: Random sampling method is not suitable in selecting sample or research participants. Researcher should develop criteria for selecting a few persons from a large group or population to minimize biasness.

Week 8.1 Preparing data collection tools

In this session, students will prepare their data collection tools. The commonly used quantitative research tool is questionnaire and test, while interview and FGD questions are prepared before starting the fieldwork. The teacher shows examples of survey questionnaire and interview questions (in paper or online such as Google form, and asks students to prepare the similar tools they intend to use in their research.

Example

Learning style questionnaire (for Quantitative study)

Instructions: Please answer the following questions to help identify your preferred learning style.

1. What do you enjoy doing in your free time?
    a. Reading books or comics
    b. Playing sports or games outside
    c. Drawing or creating art
    d. Watching educational videos or documentaries

2. When you have to learn something new, which method helps you the most?
    a. Listening to someone explain it
    b. Trying it out yourself with hands-on activities
    c. Reading about it in a book
    d. Watching a video about it
3. Which of the following activities do you find interesting? (You can select more than one)
    a. Solving puzzles or brainteasers
    b. Working with a group of friends on a project
    c. Listening to stories or audiobooks
    d. Organizing and categorizing things
4. What types of materials do you like using when learning? (You can select more than one)
    a. Books
    b. Computers or tablets
    c. Art supplies like markers, crayons, or paper
    d. Outdoor materials like a ball or nature items
5. On a scale of 1 to 5, how comfortable are you with using a computer or tablet for learning, where 1 is not comfortable at all, and 5 is very comfortable?
    1 2 3 4 5
6. How much do you enjoy learning new things at school?
    1 (I don't enjoy it) 2 3 4 5 (I love learning new things)
7. How well do you work when you're in a group with other students?
    1 (I don't work well in groups) 2 3 4 5 (I work great in groups)
8. Rate your interest in reading books for fun.
    1 (Not interested) 2 3 4 5 (Very interested)
9. How much do you like doing hands-on activities, like experiments or art projects?
    1 (I don't like them) 2 3 4 5 (I love them)
10. Rate your interest in listening to stories or podcasts.
    1 (Not interested) 2 3 4 5 (Very interested)

Interview questions (for Qualitative research)

1. What's your favourite way to learn something new? Do you like reading about it, doing hands-on activities, listening to someone explain it, or watching videos?
2. When you're working on a school project or homework, do you prefer to work

alone or with friends? Why?
3. Can you tell me about a time when you learned something really well? How did you do it?
4. Do you like to draw, write, or make things when you're learning? Can you give me an example of something you've created for school?
5. What subjects or topics do you find the most interesting at school? Why do you think you like those subjects?
6. Do you like it when your teacher explains things in class, or do you prefer to figure things out on your own?
7. How do you feel about reading books? Do you enjoy reading for fun?
8. When you have a big test or assignment, how do you usually study or prepare for it?
9. Are there any subjects or activities at school that you find challenging? What do you think makes them challenging for you?
10. Are there any specific tools or technologies (like computers, tablets, or educational apps) that you find helpful for your learning?
11. When you have to remember something important, what strategies do you use to remember it?
12. Do you enjoy group projects at school? Why or why not?

Week 8.2 Writing about data collection tools and strategies

In this sub-section, students should detail which instruments and strategies they are going to use for collecting data from the field. It is essential for the students to draft the tool(s) in this phase, which they should mandatorily put in the appendix. If they are doing a quantitative study, they will provide a brief description of questionnaire or test that they will be using and refer this to the Appendix. If they are doing a qualitative study, they will provide a brief description of unstructured interview, focus group discussion, and participant observation notes that they propose to use which they should also refer to the Appendix. In a mixed method study, they should make and describe both.

Example

I will utilize a survey questionnaire and a test to assess the learning styles of students in grades 4 and 5 (see Appendix A). I will distribute the questionnaire to collect information about their preferred learning modalities and study habits. Additionally, I will administer a test designed to gauge their comprehension and retention abilities using various learning approaches. This combination of tools will help me comprehensively evaluate the learning styles of these students and gain valuable insights into their educational needs.

Week 9.1 Writing data analysis strategies

If students are doing a quantitative study, they should be able to explain which software (Excel or SPSS) they will use and how they will edit, code, and enter the data from the filled-out questionnaires into software. In addition, they should explain what statistical analysis do they use and how. If they are doing a qualitative study, they need to explain how they will transcribe, code, compare, group and derive themes from the interview and FGD data. If they are doing a mixed-methods research, they should be able to explain how they analyze the quantitative and qualitative data and how they mix them and make meaningful conclusions.

Example

Quantitative:

In my research proposal for studying the learning styles of primary school children in Nepal, I will employ quantitative data analysis techniques using SPSS software. Once I collect data through questionnaires, I will edit and code the responses for clarity and consistency before entering them into SPSS. To analyze the data, I will initially utilize descriptive statistics like mean, standard deviation, and frequency distribution to summarize the prevalence of various learning styles. Subsequently, inferential statistical tests t-tests will be employed to determine significant differences in learning styles among demographic groups like gender, grade level, and linguistic background. By following this approach, I aim to generate objective insights into the learning styles of Nepalese primary school children, providing a solid foundation for meaningful conclusions in my mixed-methods research.

Qualitative:

In my research proposal for exploring the learning styles of primary school children in Nepal, I will employ qualitative data analysis techniques, focusing on thematic analysis of interviews and focus group discussions with the children. Firstly, I will meticulously transcribe the audio-recorded interviews and discussions to ensure accuracy and facilitate analysis. Then, I will use a systematic coding process to identify recurring patterns, ideas, and concepts within the transcripts. These codes will be grouped and compared to derive overarching themes that encapsulate the children's perspectives on learning styles. By following this structured approach, I aim to extract meaningful insights from the qualitative data, shedding light on the nuanced aspects of learning styles among primary school children in Nepal and contributing to a holistic understanding of the subject.

Mixed:

I will use a mixed-method data analysis technique to examine the learning styles of primary school children in Nepal using a mixed-methods approach. In so doing, I will integrate both quantitative and qualitative data analysis techniques. For the quantitative aspect, I will employ SPSS software to edit, code, and analyze the data collected from the questionnaires. This will involve summarizing the prevalence of different learning styles using descriptive statistics and conducting inferential statistical test, t-tests to identify significant differences among demographic groups. Simultaneously, in the qualitative phase, I will transcribe, code, compare, and group the data obtained from interviews and focus group discussions with the children. Thematic analysis will be applied to derive overarching themes from the qualitative data. Finally, I will employ a triangulation approach to combine the quantitative and qualitative findings, allowing for a comprehensive understanding of learning styles among primary school children in Nepal and enabling meaningful conclusions to emerge from the mixed-methods analysis.

Week 9.2. Writing ethical considerations

In this section, they will envision what ethical issues may arise while working with the participants and how they will addess these issues. Generally, they should consider the following fundamental ethical issues: informed consent, confidentiality, no-harm, trust, no data manipulation and reciprocity.

Example:

In conducting this research on the learning styles of primary school students, I will be very much careful for maintaining the major ethical issues. First, I will prioritize obtaining informed consent from both the participating students and their parents or guardians, ensuring that they fully understand the research objectives, procedures, and potential risks involved. Confidentiality will be rigorously maintained, with all collected data anonymized and stored securely. Moreover, I am committed to the principle of "do no harm," and every effort will be made to minimize any potential discomfort or stress for the participants. Building trust and rapport with the students and their communities will be paramount, emphasizing open communication and mutual respect. Data manipulation will be strictly avoided, and my analysis will adhere to rigorous ethical standards. Lastly, I will ensure reciprocity by sharing our research findings with the participants and their schools, fostering a sense of collaboration and benefit for all involved parties. I hope that these ethical strategies safeguard the rights and well-being of the primary school students and their communities throughout the study.

Week 10.1 & 10.2. Compiling and editing all chapters of the proposal

In the tenth week, students join together all chapters and subchapters of the proposal. They will make the proposal logical, connected and coherent. They will also proofread and finalize every section and sub-section of their proposal. They will continually share their work with the teacher and seek feedback for finalizing their contents.

Week 11.1 & 11.2. Chapter formatting, citation and referencing using APA 7th edition

Finally, students will format the proposal following the guidelines of APA 7th edition. In this process, the teachers will provide them theoretical knowledge of APA guidelines, mainly the structure, headings, citations and referencing. With teachers' feedback, students make appropriate formatting, citation and referencing using APA 7th edition. Then, they will type and make copies of proposal ready for submission and evaluation.

Week 12. Proposal presentation, defense, and evaluation of Part A (3 credit hours)

In these final two weeks, the department/college will arrange students' presentation and viva. An expert evaluator having specialization and expertise in the same subject or similar subject will be hired from within campus or nearby campus to evaluate the proposal. A senior faculty can be hired in case the department cannot hire relevant expert from the nearby campus. The regular teacher / supervisor will evaluate students' proposal in the capacity of internal expert. Both of these examiners (internal expert and expert evaluator) will evaluate the proposal based on the following criteria (Table 1):

Table 1. Proposal evaluation criteria (Internal Assessment)

Assessment criteria	Internal evaluation (Full marks 60)	Expert evaluation (Full mark 40)	Total 100
Defense on viva questions	10	6	16
Originality, novelty and contributory to the field	6	4	10
Appropriateness of introduction section, Researchable problems, objectives and questions	10	6	16
Appropriateness of literature review: thematic & relevant, Appropriateness of	6	4	10

conceptual framework			
Appropriateness of methodology	8	6	14
Data collection tools (in Appendix)	6	4	10
Writing: academic style, clarity, coherent & error-free	8	6	14
Formatting, citation and referencing according to APA	6	4	10
Total	60	40	100

Each student required to submit a proposal for writing thesis with the recommendation of his/her teacher/supervisor to the department for internal assessment of thesis writing course. Internal evaluation should be done before filling up fourth semester examination form. The department/campus must send evaluation marks of each student of Part A, three credit hours (100 marks) with examination form. One printed copy of final proposal of each student, bearing the signatures of both internal and external evaluators as well as the official seals of the campus and department, must be retained for official documentation purposes. The Dean's Office reserves the right to periodically audit these proposal records. Additionally, it is imperative to maintain detailed meeting minutes of the final examination, including the students' names, proposal titles, viva dates, and awarded scores. As part of this process, the department is responsible for submitting individual student scores to the Dean's Office prior to the final examination.

Part B. Thesis: 3 credit (expected duration: 3 months)

1. **Course Description:**
   The research and writing the thesis is expected to complete in the remaining three months of the semester. The Dean' Office expects that students submit the thesis for final viva after completed (Passed) the all theories and Practical papers of the final exam.

   Following the presentation and evaluation of their proposals, each student will be assigned a supervisor by the department or campus. Then, students will engage in the following tasks in close consultation with their supervisors in order to finalize their research activities and write their theses.

2. General Objectives

The general objectives of this part B are to enable student to:

- Prepare data collection tools or strategies and finalize them by incorporating the thesis supervisor's suggestions.
- Conduct fieldwork, collect data from the field, and analyze them using the strategies mentioned in their proposal.
- Collaborate closely with the supervisor to write the findings, discussion, and conclusion sections.
- Revisit and refine the introduction, literature review, and methodology sections of their proposal, making edits and adding information as needed to align them with the final thesis.
- Compile all thesis components, ensuring they are interconnected, logical, and coherent.

- Share their progress with the supervisor, seeking feedback and suggestions for thesis improvement through the process of writing.
- Once the supervisor is satisfied with the thesis's quality and outcomes, they will recommend it for evaluation through a viva examination.

3. **Specific Objectives and Contents**

Specific Objectives	Contents
• State the ingredients of a thesis in a research way • Write the thesis by following the given format • Follow the APA style of research report writing while writing the thesis • Present the thesis in an organized way to face the viva voce in a confident way.	**Preliminary Part** **Cover page** with the thesis title, details of the researcher, the level (M.Ed.) for which it is written, and department/campus. **Recommendation letter** (Letter from the head of the department/campus) **Approval letter** (Letter head of the department/campus) **Acknowledgement (**Few words of gratitude to the contributors of the thesis) **Abstract** (An abstract of the thesis with not more than one and half pages or in 350 to 400 words, including **topic, major objectives, method and procedure, main findings, knowledge contribution** and **key implications** of the study). **Table of contents** **Acronyms/abbreviations** **List of tables** (If necessary) **List of figures** (If necessary) **List of charts and graphs** (If necessary) **CHAPTER ONE : INTRODUCTION** 1.1 Background of the study 1.2 Statement of the problem 1.3 Objectives of the study 1.4 Research question/s (if necessary) 1.5 Significant of the study 1.6 Delimitations of the study 1.7 Definition of the key terms **CHAPTER TWO:REVIEW OF RELATED LITERATURE AND THEORETICAL FRAMEWORK** 2.1 Review of related literature 2.2Theoretical/Conceptual framework 2.3 Implications of the review for the research **CHAPTER THREE :METHODS AND**

	PROCEDURES 3.1 Research design(qualitative, or quantitative or mixed method) 3.2 Population and sample/research participants 3.3 Sampling strategy and procedures 3.3 Research tools 3.4 Sources of data 3.5 Data collection procedures 3.6 Data analysis procedures 3.7 Ethical considerations **CHAPTER FOUR: RESULT AND DISCUSSION (ANALYSIS AND INTERPRETATION OF RESULTS)** **CHAPTER FIVE : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

Presentation and evaluation of the final thesis

When students finish their theses, a group made up of the department chair, the thesis supervisor, and another expert member from another Department or Campus will assess the thesis. A senior faculty can be hired in case the department cannot hire relevant expert from the nearby campus. They will use the criteria in Table 2 to evaluate 40 the marks of Part B. After that, a hard copy of the thesis singed by the member of thesis evaluation committee with internal marks will be sent to the Dean's Office for a final evaluation.

Table 2. Internal thesis evaluation criteria (Three-member thesis evaluation committee: Department Head, Supervisor and Expert will evaluate thesis based on following criteria)

Assessment criteria	**Evaluation by Department Thesis Evaluation Committee (Full marks 40)**
Appropriateness of introduction section, researchable problems, objectives//questions, significance and delimitation of the study	5
Appropriateness of literature review: thematic & relevant; appropriateness of conceptual framework	4
Appropriateness of methodology and tools	5
Appropriateness of presentation of results/findings	4
Appropriateness of interpretation of results/findings in line with objectives/research questions	3
Appropriateness of conclusion and recommendations	4
Academic Writing: clarity, coherent, argument, style, grammar and error-free in writing	5
Formatting, citation and referencing according to APA	4
Oral presentation and defending style in viva	6
Total	40

Final Evaluation of thesis

The hardbound thesis submitted to the Department/Campus will be sent to the Examination Division, Office of the Dean, Faculty of Education for final evaluation. The Office of the Dean, with consultation of the relevant Subject Committee, will appoint two professors/teachers to evaluate the thesis using the criteria in Table 3, accounting for the remaining 60 marks of Part B. The marks given by the two evaluators will be averaged and combined with the marks given by the campus/department as internal evaluation of the Thesis writing. Out of 200 marks in thesis writing course, 70% (140 marks) will be evaluated by the department/campus and only 30% (60 marks) will be externally evaluated by the office of the Dean, Kathmandu.

Table 3: External evaluation criteria

SN	**Assessment criteria**	**Full marks 60**
1	Appropriateness of title	3
2	Appropriateness of abstract	5
3	Appropriateness of introduction section: background, researchable problems, objectives//questions, significance and delimitation of the study	10
4	Appropriateness of literature review: thematic & relevant; appropriateness of conceptual framework	7
5	Appropriateness of research method design	5
6	Appropriateness of sampling/selection of research participants including data collection and analysis	5
7	Appropriateness of presentation of results/findings using tables, graphs, figures, statistics, verbatims, cases and narratives	5
8	Appropriateness of analysis of interpretation of results/findings in line with objectives/research questions	5
9	Appropriateness of conclusion and recommendations	5
10	Clarity, coherent, argument, style, grammar and error-free in writing	5
11	Formatting, citation and referencing according to APA	5
	Total	60

Submission of Final Thesis

Students are allowed to submit their Master Thesis by the end of fourth semester or after examination of the fourth semester final examination before publishing the result of fourth semester exam papers.

Grand total and grading

The Dean's Office will aggregate the marks obtained in proposal (Part A) and thesis writing (Part B) and provide an appropriate grade to individual student based on the university criteria. The following forms will be used for the final grading purpose:

S.N.	Exam Roll No.	Name of the students	Marks in proposal (P) 100	Marks in thesis (T) 100	Total marks P+T 200	Grade

Key references:

Bailey, S. (2003). *Academic writing: A practical guide for students*. London: Routledge Falmer.

Bui, Y.N. (2020). *How to write a master's thesis* (3rd ed.) Sage.

Creswell, J.W., & Gutterman, T.C. (2019). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (6th ed.). Pearson.

Bio. Ed. 546: Ethnobiology

Course No: Bio. Ed. 546 (Elective)	Nature of course: Theoretical
Level: M. Ed.	Credit hours: 3
Semester: Fourth	Teaching hours: 48

1. Course Description

This course deals with the introduction to ethnobiological perspectives, ethnic people and their indigenous knowledge, skills and technology, and participatory innovation development. It also deals with different research methods and their application in collecting, documenting and managing ethnobiological knowledge, skill and technology; various ways of communicating ethnobiological data in print and electronic media; use of ethnobiological databases for community development; application of ethnobiological knowledge and skill in community development and biological resource conservation and understanding policies and strategies of conservation of indigenous knowledge and technology.

2. General Objectives

General objectives of this course are as follows:

- To introduce the students with general concepts and development of ethnobiological discipline
- To impart knowledge on people, their culture and their knowledge and local innovation on agriculture, forests and resource management
- To acquaint the students with ethnobiological research methods and research findings
- To impart knowledge about the sources of data on ethnobiology
- To provide ethnobiological knowledge and skills in conservation and community development
- To make the students aware of conservation policies on traditional biological knowledge, skill and technology

3. Specific Objectives and Contents

Specific objectives	Contents
• Explain concept, scope and subdivisions of ethnobiology. • Explain ethnobiological nomenclature classify ethnobiological specimens. • Describe local, traditional and indigenous knowledge, local innovations and development process in Nepalese perspectives. • Explain the role of local knowledge and innovations in resource management. • Discuss the status of ethnobiology education in higher secondary and school research centers university	**Unit I. Introduction Ethnobiology (10)** 1.1. Concept, scope and subdivisions of ethnobiology 1.2. Ethnobiological nomenclature and classification: ethnotaxonomy 1.3. Local, traditional and indigenous knowledge on biological resources (wild and domesticated plants and animals); Traditional Ecological Knowledge (TEK); local innovation and development process 1.4. Local innovations and their role in biological resource management 1.5. Status of ethnobiology in academia and research organizations
• Describe the development of ethnobiology research. • Describe important research methods of ethnobiology. • Explain collection and management techniques of biological specimens and artifacts. • Explain communication process of ethnobiological data.	**Unit II. Ethnobiology Research Methods (14)** 2.1 Development of ethnobiology research in contemporary global perspectives 2.2 Important research methods of ethnobiology 2.3 Collection and management techniques of biological specimens and artifacts 2.4 Communicating ethnobiological data in print and electronic media
• Describe the ethnobiological databases and different types of ethnobiological databases.	**Unit III. Ethnobiological Databases and Application (16)** 3.1 Concepts and types of Ethnobiological Databases

• Explain ethnobiological database on the use of wild and domesticated biological resources. • List and explain different types of ethnobiological knowledge centers. • Explain the ways of applying of ethnobiological knowledge, skill and technology in education, research and development. • Discuss conservation methods of traditional knowledge and skills in Nepal. • Explain the application of ethnobiological knowledge, skill and technology in museum, botanical gardens and zoos	3.2 Ethnobiological database on the use of wild and domesticated biological resources 3.2.1 Food, 3.2.2 Medicine, 3.2.3 Fodder and forage, 3.2.4 Biopesticides, 3.2.5 Building materials, 3.2.6 Decorating plants and animals 3.3 Ethnobiology knowledge centers: 3.3.1 Herbarium, 3.3.2 Museums, 3.3.3 Artifact collections, 3.3.4 Ethnobotanical gardens, 3.3.5 Zoos, 3.3.6 National parks and wildlife reserves, 3.3.7 Libraries, 3.3.8 laboratories 3.4 Ways of applying of ethnobiological knowledge, skills and technology in education, research and development 3.5 Different conservation methods used in Nepal, 3.5.1 *in-situ* 3.5.2 *ex-situ* conservation of plants and animals 3.6 Integrating ethnobiological knowledge and technology in museum, botanical gardens and zoos
• Explain conservation policies,	**Unit IV. Conservation Policies and Strategies (8)** 4.1 Conservation policies, legislations and strategies focusing on indigenous

legislations and strategies for ethnobiological knowledge, skill and traditions. • Explain the intellectual property rights and its relation with indigenous knowledge conservation. • Explain framework for conservation and management of traditional biological knowledge, skill and technology.	knowledge, skill and techniques 4.2 Intellectual property rights and indigenous knowledge 4.3 Framework of conservation and management of traditional biological knowledge, skill and technology in government, universities and community-based organizations.

Note: The figures in the parentheses indicate the approximate teaching hours allocated to respective units.

4. Instructional Techniques

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

4.1 General instructional techniques

- Lecture method
- Demonstrational method
- Discussion method
- Inquiry method
- Collaborative method

4.1 Specific instructional techniques:

Units	Activities
Unit I	Chart preparation and presentation, field visits
Unit II	Web surfing
Unit III	Video preparation and show, leaflet preparation
Unit IV	Interview, web surfing, field visits, case study, seminar conduction

5. Evaluation

5.1.Evaluation (Internal Assessment and External Examination)

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.*

5.1.1 Internal Evaluation **40 Marks**

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 assignment (written assignment)	10 Marks
4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

5.1.2 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

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
3.	Subjective long questions (2 questions with 1 ‘OR ‘questions x 10 marks)	20 Marks
	Total	60 Marks

Recommended Books and Reference

Recommended Books

Albuquerque, U. P., Ramos, M. A., de Lucena, R. F. P., & Alencar, N. L. (2014). Methods and techniques used to collect ethnobiological data. *Methods and techniques in ethnobiology and ethnoecology*, 15-37.

Alexiades, M. N. (1996). Protocol for conducting ethnobotanical research in the tropics. *Advances in Economic Botany*, *10*, 5-18. **(For Unit III)**

Alexiades, M. N., & Sheldon, J. W. (1996). Selected guidelines for ethnobotanical research: a field manual. *(No Title)*. **(For Unit II)**

Belbase, N., Wells, K., Adhikari, P., & Pandit, S. (1999). National Implementation of the convention on biological diversity: Policy and legislative requirements. **(For Unit IV)**

Berlin, B. (2014). *Ethnobiological classification: Principles of categorization of plants and animals in traditional societies* (Vol. 185). Princeton University Press. **(For Unit I)**

Castetter, E. F. (1944). The domain of ethnobiology. *The American Naturalist*, *78*(775), 158-170. **(For Unit I)**

Cotton, C. M. (1996). *Ethnobotany: principles and applications*. John Wiley & Sons. **(For Unit I, II, III)**

Cunningham, A. B. (2001). *Applied ethnobotany: people, wild plant use and conservation*. Earthscan. **(For Unit I, II, IV)**

Ellen, R. F. (1993). The cultural relations of classification: an analysis of Nuaulu animal categories from central Seram. *(No Title)*. **(For Unit I)**

Jain, S. K. (1996). Ethnobiology in Human welfare. In *International Congress of Ethnobiology 1994: Lucknow, India)*. Deep publications. **(For Unit I, II, III)**

Manandhar, N. P. (2002). *Plants and people of Nepal*. Timber press. **(For Unit I, II, III)**

Martin, G. J. (1995). Ethnobotany: a methods manual, Chapman y Hall. *Nowy Jork*. **(For Unit II)**

Minnis, P. E. (Ed.). (2000). *Ethnobotany: a reader*. University of Oklahoma Press. **(For Unit I, III)**

Posey, D. (1999). Cultural and spiritual values of biodiversity. London, United Nations Environmental Programme & Intermediate Technology Publications. **(For Unit III)**

Rajbhandari, K. R. (2001). Ethnobotany of Nepal Kathmandu. *Ethnobotanical Society of Nepal (ESON)*. **(For Unit I, III)**

Sillitoe, P. (2006). Ethnobiology and applied anthropology: rapprochement of the academic with the practical. *Journal of the Royal Anthropological Institute*, *12*, S119-S142. **(For Unit III)**

Reference Books

Ballee, W. (1998). *Advances in historical ecology*. New York: Columbia University

Conklin, H. C. (1968). Lexicographical treatment of folk taxonomies. *Readings in the Sociology of Language*, *1968*, 414-433.

Dodson, M., & Barr, O. (2007). Breaking the deadlock: Developing an indigenous response to protecting indigenous traditional knowledge. *Austl. Indigenous L. Rev.*, *11*, 19. http://www.un.org/esa/socdev/unpfii/documents/6_session_dodson.pdf.

Ellen, R. (2006). *Special Edition of the* Journal of the Royal Anthropological Institute. *S1-S22*.http://www.kent.ac.uk/anthropology/files/jrai_270.pdf

Harrington, J.P. (1947). Ethnobiology. *Acta Americana*. Number 5. Pages 244-247

Haudricourt, Andre-Georges (1973) "Botanical nomenclature and its translation. In M. Teich & R Young (Eds) *Changing perspectives in the history of science: Essays in honour of Joseph Needham* Heinemann. London, 265-273.

IUCN.Laird, S. A. (2002). Biodiversity and Traditional Knowledge–Equitable Partnerships in Practice. *Environmental Management and Health*, *13*(3), 317-317.

Johannes, R. E. (1989). *Traditional ecological knowledge: a collection of essays*.

Plotkin, M. J. (1995). The importance of ethnobotany for tropical forest conservation. *Ethnobotany. Dioscorides Press, Portland*, 147-156.

Schultes, R. E., & Von Reis, S. (1995). *Evolution of a Discipline* (Vol. 414). Portland, Ore: Dioscorides Press.

Stevenson, M. C. (1915). *Ethnobotany of the Zuni Indians* (Vol. 30). US Government Printing Office.

Tuxill, J. D., & Nabhan, G. P. (2001). *People, plants, and protected areas: A guide to in situ management* (Vol. 3).

Earthscan.Zerner, C. (Ed.). (2000). *People, plants, and justice: the politics of nature conservation*. Columbia University Press.

Bio. Ed. 547: Natural Resource Conservation and Management

Course No: Bio. Ed. 547 (Elective) Nature of course: Theoretical

Level: M. Ed. Credit hours: 3

Semester: Fourth Teaching hours: 48

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1. Course Description

This course is designed to acquaint the students with the knowledge and skills on "Natural Resource Conservation and Their Management". The major aims of the course are to give advanced knowledge on the status of natural resources and their conservation with reference to Nepal. The course covers both renewable and non-renewable resources focusing on biological, water, soil, minerals and energy resources including their use and application for the livelihood enhancement of the people.

2. General Objectives:

The general objectives of this course are as follows:

- To acquaint the students with biological resources, their status and conservation
- To give brief description of water resources status, use, issues and opportunities
- To give exposure to the students on the status of soil and minerals resources, their nexus with environment and society
- To make students familiar with the status of energy resources, their consumption and impacts on the environment
- To make the students familiar with the relationship between natural resources, indigenous knowledge and environmental conservation
- To produce self-reliant and practically oriented resource managers

3. Specific Objectives and Contents

Specific objectives	Contents
• Explain briefly the introduction and the concept of natural resources • Describe major types natural resources • Discuss briefly the types of biodiversity • Explain the scope and importance of natural resources • Explain about the production practices	**Unit I. Natural Resources Conservation and Management (6)** 1.1 Introduction 1.2 Types 1.3 Scope and importance 1.4 Production practices of natural resources

of natural resources • Explain the key philosophies and principles related to natural resources conservation and management	1.5 Key philosophies and principles of traditional and modern practices
• Explain the concept of biological resources • Describe the status of biological diversity in global and national context • Discuss briefly the ecological and economic benefits of biological diversity • Discuss on forest types and their distribution in Nepal • Highlight the major issues concerning with the conservation of biodiversity • Study the national initiatives on biological resources conservation and their sustainable use with suitable case studies	**Unit II: Biological Resources (8)** 2.1 Concept 2.2 Status of biological resources in global and national context 2.3 Ecological and economic benefits of biological diversity 2.4 Forest types and their distribution in Nepal 2.5 Issues concerning to conservation of biodiversity 2.6 National initiatives on sustainable use and management with relevant case studies
• Give brief description of sources and status of fresh water in global and Nepalese context • Explain interrelation of water resources with other natural resources and environment • Acquaint with the major issues associated with the water resources • Explain the concept of watersheds and their management	**Unit III Water Resources (8)** 3.1 Concept and status of fresh water resources in the world and Nepal 3.2 Interrelation of water resource with other natural resources and environment 3.3 Issues concerning of water resource, it's distribution and use including transboundary aspects 3.4 Concept of sustainable use of water and integrated water resource management (IWRM)/watershed management
• Explain the concept, nature and types of	**Unit IV: Soil and Mineral Resources (9)**

soil resources • Discuss soil as resource in Nepalese context • Explain soil conservation methods • Describe the sloping agricultural land technique (SALT) and its importance in context of Nepal • Discuss the major minerals and their classification • Explain the distribution, abundance and use of mineral resources in context of Nepal • Explain the major environmental impacts of mineral exploitation and use • Discuss the sustainable use of mineral resources	4.1 Nature and types of soil 4.2 Soil in Nepal 4.3 Soil conservation methods 4.4 Sloping agricultural land technique (SALT) and its importance in context of Nepal 4.5 Classification of minerals 4.6 Distribution, abundance and use of mineral in Nepal 4.7 Environmental impacts of mineral exploitation and use 4.8 Sustainable use of mineral
• Explain the introduction and types of energy resources • Discuss current consumption pattern of energy resources and their advantages and disadvantages in Nepalese context • Describe nexus of environment-energy and major issues concerning with it • Introduce the major alternative sources of energy • Discuss the sustainable use of energy sources in Nepal	**Unit V: Energy Resources (9)** 5.1 Introduction and their classification 5.1.1 renewable 5.1.2 non-renewable, 5.1.3 alternative 5.2 Current consumption pattern of energy resources and their advantages and disadvantages in Nepalese context 5.3 Environment-energy nexus and concerning issues 5.4 Introduction to potential sources of alternative energy 5.4.1 solar, 5.4.2 wind, 5.4.3 hydro, 5.4.4 geothermal,

	5.4.5 wave and tidal, 5.4.6 nuclear 5.4.7 biofuels 5.5 Approaches of sustainable use of energy resources in Nepal
• Introduce the concepts of social conventions and norms, cultural values and institutions • Study the human-environment relationship with reference to developing and developed countries • Highlight the basic concept of common pool resources, tragedy of commons and prisoner's dilemma • Discuss the Impact of natural resource development projects on lives of indigenous people • Describe the role of society, culture, institutions indigenous knowledge for natural resource management	**Unit VI: Society, Culture and Natural Resources Management (8)** 6.1 Introduction to the concepts of social conventions and norms, cultural values and institutions. 6.2 Human-environment relationship: its history and different perspectives in developing and developed countries 6.3 Basic concept on common pool resources, tragedy of commons and prisoner's dilemma 6.4 Impact of natural resource development projects (mines, hydro, tourism) on lives of indigenous people 6.5 Role of society, culture, institutions indigenous knowledge for natural resource management

Note: *The figures within parenthesis indicate the appropriate teaching hours allocated to respective units.*

4. Instructional Techniques

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

4.1 General Instructional Techniques

- Lecture method
- Discussion method
- Demonstration method and

- Collaborative method;

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Units	Activities
Unit I	Chart preparation and presentation, field visits
Unit II	Web surfing
Unit III	Video preparation and show, leaflet preparation
Unit IV	Interview, web surfing, field visits, case study, seminar conduction
Unit V	Web surfing, Group work and Field work
Unit VI	Project work, preparation of charts

structional Techniques/Activities

6. Evaluation

6.1.Evaluation (Internal Assessment and External Examination)

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.*

5.1.2 Internal Evaluation **40 Marks**

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 assignment (written assignment)	10 Marks

4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

5.1.2 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

4.	Objective questions (Multiple Choice Questions 10 x 1mark)	10 Marks
5.	Subjective short questions (6 questions with 2 'OR 'questions x 5 marks)	30 Marks
6.	Subjective long questions (2 questions with 1 'OR 'questions x 10 marks)	20 Marks
	Total	60 Marks

Recommended Books and Reference

Recommended Books

Chaudhary, R. P. (1998). *Biodiversity in Nepal: Status and Conservation*. Shanpur (UP): Tempers Books. **(All Units)**

Brady, N. C., & Well, R. R. (2007). *The Nature and Properties of Soils*. New Delhi: Pearson Prentice Hall. (**Unit IV)**

Christensen, J. W. (1984). *Global Science: Energy, Resource and Environment*. Dubuque, Lowa: Kendall-Hunt Publishing Co. (**Unit V)**

Government of Nepal. (2004). *Mineral Resources of Nepal*. Kathmandu: Department of Mines and Geology, Government of Nepal. (**Unit IV)**

Jha, P. K., Karmacharya, S. B., Baral, S. R., & Lacoul, P. (2000). Environment and Agriculture at the Crossroads of the New Millennium. *Ecological Society (ECOS), Kathmandu*. (**Unit VI)**

Water and Energy Commission Secretariat (WECS). (2010). *Energy Sector Synopsis Report*. Retrieved from Kathmandu: Government of Nepal (GoN). (**Unit III)**

References

Bhuju U.R., Shakya P.R., Basnet, T.B. and Shrestha, S. (2007) Nepal Biodiversity Resource Book: Protected Areas, Ramsar Sites, and World Heritage Sites. ICIMOD and MOEST, Government of Nepal in cooperation with UNEP, Kathmandu, Nepal.

Bailey, J. A. (1984). *Principles of Wildlife Management*. New York: John Wiley.

Central Bureau of Statistics (CBS). (2011). *Environment Statistics of Nepal*. Kathmandu: Government of Nepal (GoN).

Chandler, W. U., Geller, H. S., & Ledbetter, M. R. (1988). *Energy efficiency: A new agenda*.

McCoy, R. (1985). *National Parks for a New Generation: Visions. Realities. Prospects*. Washington DC: The Conservation Foundation.

Council on Economics and National Security. (1981). *Strategic Minerals: A Resources Crisis*. Washington DC.: Council on Economics and National Security

Davidson, J. (1987). *The New Solar Electric Home*. Ann Arbor: Aatec Publications.

Fowler, J. M. (1984). *Energy and the Environment*. New York: McGraw-Hill.

Groom, J. M., Meffe, G. K., & Carrroll, C. R. (2006). *Principles of Conservation Biology. (3rdEdition)*. USA: Sinauer Associates Publication.

Hendee, J. (1977). *Principles of Wilderness Management*. Washington, DC: Government Printing Office.

Joshi, A. R., Shrestha, S. L., & Joshi, K. (2003). *Environmental Management and Sustainable Development at the Crossroad*. Kathmandu: Ankush.

Klee, G. A. (1991). *Conservation of Natural Resources*. USA: Prentice Hall Publication Co.

McNeely, J. A. (1989). *Conserving the World's Biological Resource: A Primer on Principles and Practice for Development Action*. Washington DC: World Resource Institute.

Miller, J. G. T. (2003). *Living in the Environment*. USA: Wadsworth Publication.

National Academy of Sciences. (1986). *Soil Conservation*. Washington DC: National Academy Press.

Vatn, A. (2005). *Institution and the Environment*. USA: Edward Elgar Publishing, Inc.

Waring, R. H., & Schlesinget, W. R. (1985). *Forest Ecosystem: Concepts and Management*. Florida: Academic Press.

Water and Energy Commission Secretariat (WECS). (2010). *Energy Sector Synopsis Report*. Kathmandu: Government of Nepal (GoN)

Water and Energy Commission Secretariat (WECS). (2011). *Water Resources of Nepal in the Context of Climate Change*. Kathmandu: Government of Nepal (GoN)

Chem. Ed. 546: Nuclear Chemistry

Course No.: Chem. Ed. 546 (Elective) Nature of course: Theoretical

Level: M.Ed. in Chemistry Credit hours: 3

Semester: Fourth Teaching hours: 48

Period per week: 3

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1. Course Description

This course aims to provide students with both basic and advanced knowledge in the field of nuclear chemistry. It covers a wide range of topics including nuclear structure and systematics, isotopes and nuclear forces, nuclear radiations and their effects, nuclear emission and radioactive decay, detection methods for nuclear radiations, and nuclear reactions. The course consists six units. Unit I emphasize to the composition, and structure of nuclei. Unit II Covers the isotopic preparation and application and different types of nuclear forces operate inside the nucleus of atom. Unit III provides knowledge of different types of nuclear radiations, their interaction with matter and their effects. Unit IV provides the information regarding different types of nuclear emission, their decay processes and theory related to nuclear emission. Unit V is about the detection methods for nuclear radiations and Unit VI is about nuclear reactions and nuclear reactors.

2. General Objectives

The general objectives of this course are as follows:

- To develop a conceptual understanding of nuclear chemistry among students.
- To familiarize students with the structure of the nucleus and nuclear systematics.
- To equip students with knowledge of isotopes and nuclear forces.
- To facilitate students' understanding of nuclear emission and radioactive decay.
- To acquaint students with different types of radiation, their effects, and various methods for detecting nuclear radiation.
- To familiarize students with different types of nuclear reactions.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Classify the elementary particles and discuss their properties. • Explain the comparative account of particle and anti-particle • Discuss the interaction between elementary particle and their types	**Unit I: Elements of the Nuclear Structure and Systematic (8)** 1.1 Elementary particles and their classification 1.2 Particle and anti-particles 1.3 Interaction between elementary particle

• Explain the structure of nucleus • Describe principle and radial quantum numbers • Discuss the different concepts of nucleus • Illustrate the Magnetic and electric properties of the nucleus • Explain the salient feature of different nuclear models. • Describe nuclear polarization and nuclear scattering	1.4 Structure of nuclei: size, charge, mass, shape and angular momentum of nucleus. 1.5 Principle and radial quantum numbers 1.6 Electron proton concept 1.7 Neutron proton concept 1.8 Magnetic and electric properties of the nucleus 1.9 Nuclear models 1.9.1 Shell Model, 1.9.2 The liquid drop model, 1.9.3 Fermi gas model and 1.9.4 the collective model 1.9.5 optical model 1.10 Nuclear Polarization, Nuclear Scattering
• Describe isotopes and isotopic constituents of the elements • Describe the preparation of various radioisotopes • Explain the experimental procedure of separation of isotopes and tracer technique • Discuss the application of isotopes as tracer technique • Explain the properties of deuteron • Illustrate low energy neutron – proton scattering • Discuss change independence of nuclear force • Explain nucleon –nucleon forces and stability of nucleus • Explain the Meson theory of nuclear force • Explain Semi- empirical mass equation under different energy terms • Write the applications of semi- empirical mass equation	**Unit: II Isotopes and Nuclear Forces (10)** 2.1 Isotopes and isotopic constituents of the Elements 2.2 Reactions involved in the preparation of radioisotopes (^{3}H, ^{14}C, ^{22}Na, ^{32}P, ^{35}S, ^{131}I) 2.3 Separation of isotopes and tracer technique 2.4 Application of radioisotopes as Tracers (Chemical Analysis, Physio-chemical, analytical, Age determination, Medical, Agricultural, Prospecting of natural resources, Industrial applications) 2.5 The deuteron 2.6 Low energy neutron – Proton scattering 2.7 Proton- Proton system scattering 2.8 Change independence of nuclear force 2.9 Nucleon- nucleon forces 2.10 Meson theory of nuclear force 2.11 The semi-empirical mass equation: - Volume energy, - Surface energy, - Asymmetry energy, - Pairing energy and Total binding energy 2.12 Applications of the semi- empirical mass equation
• Illustrate the natural and artificial	**Unit:III Nuclear Radiations and Its Effect (6)**

radioactivity • Discuss the units of radioactivity • Discuss the properties of different types of radiations • Discuss the interaction of radiation with matter • Explain the dosimetry and radiolysis of water • Discuss radiation hazards • Define radio-toxicity and explain its types • Explain the environmental radioactivity • Describe the biological effects of radiation • Explain the genetic effect of radiation and effect of radiation in DNA and its constituents • Discuss Maximum permissible dose • Discuss the technique of nuclear waste management •	3.1 Natural and artificial radioactivity 3.2 Units of radioactivity 3.3 Different types of radiations 3.4 Interaction of radiation with matter, dosimetry, radiolysis of water, 3.5 Radiation hazards, radio-toxicity and its type, 3.6 Environmental radioactivity 3.7 Biological effects of radiation 3.7.1 Genetic effect of radiation 3.7.2 Effect of radiation in DNA and its constituents. 3.7.3 Mechanism of radiation reaction on human cell 3.8 Maximum permissible dose 3.9 Nuclear waste management techniques 3.10 Nuclear related international treaty
• Discuss the half- life period and mean life for radioactive elements • Discuss different radioactive elements • Explain different types of radioactive decays • Describe the systematics of α – decay • Describe different types of natural and artificial decay series • Explain the selection rule for Gamma emission • Explain Fermi's theory of Beta- decay • Illustrate the chemical change in beta decay process • Explain the Pauli's neutrino hypothesis and reciprocity theorem	**Unit IV Nuclear Emission and Radioactive decay (7)** 4.1 Half-life period and mean life 4.2 Radioactive elements 4.3 Introduction of α, β and γ decay 4.4 Systematic of α – decay 4.5 Radioactivity decay series 4.6 Selection rule for gamma emission 4.7 Fermi's theory of beta decay 4.8 Chemical change in β- decay process 4.9 Pauli's neutrino hypothesis 4.10 Compound nucleus and reciprocity theorem
• Explain the different methods for detecting nuclear radiation • Describe Ionization chamber and solid state detectors. • Explain Proportional and Geiger-muller counter	**Unit: V Detection Methods for Nuclear Radiations (7)** 5.1 Ionization chamber and solid state detectors. 5.2 Proportional and Geiger- muller counter.

• Explain the principle of Scintillation counters. • Describe Photographic emulsion.	5.3 Scintillation counters. 5.4 Photographic emulsion.
• Discuss the nuclear reaction • Explain the Bethe's notation of atomic nuclei • Discuss Conservation law in nuclear reactions • Explain reaction cross sections • State the general feature of cross sectors • Describe inversion reaction • Illustrate nuclear fusion and nuclear fission reactions • Define and calculate the nuclear reaction energy values for different atomic nuclei • Derive threshold energy equation for nuclear reactions • Discuss fission energy, Bohr and wheeler theory • Describe specific reactions due to neutrons, protons, deuterons, alpha, tritons and heavy ions • Explain the compound nucleus theory • Describe photonuclear reactions • Describe thermonuclear reactions • Explain the conservations of protons, neutrons and energy in nuclear reactions • Explain different fission reactors • Classify the reactors • Explain the typical reactors • Explain the feature of fast breeder reactors test reactors	**Unit: VI Nuclear Reactions (10)** 6.1 Introduction 6.2 Bethe's notation 6.3 Conservation law in nuclear reactions 6.4 Reaction cross sections 6.5 General feature of cross Rectors 6.6 Inversion – reaction 6.7 Nuclear fusion and fission reactions 6.8 Nuclear reaction energy value 6.9 Threshold energy for a nuclear reaction 6.10 Fission energy 6.11 Bohr and wheeler theory of nuclear fission 6.12 Specific nuclear reactions due to neutrons, protons, deuterons, alpha , tritons and heavy ions 6.13 The compound nucleus theory 6.14 Photonuclear reactions 6.15 Thermonuclear reaction 6.16 Conservations in nuclear reactions: Protons, neutrons and energy 6.17 Nuclear reactors: basic principle, reactor criticality, short down mechanism, thermodynamics efficiency 6.18 The classification of reactors 6.19 Typical reactors and Breeder reactors (Feature of FBTR)

Note: The figures with in the parentheses indicate the approximate periods for respective units.

4. Instructional Techniques

The instructional techniques for this course are divided into two groups. 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
- Demonstration and Presentation
- Inquiry

- Project work
- Cooperative and collaborative work
- Internet (web) surfing
- Group work

4.2 Specific Instructional Techniques

	SpSecific Instructional Techniques
	Classroom presentation
	Report writing and presentation followed by discussion
	Presentation by studying the handouts provided by the teacher followed by teachers' suggestions
	Video display of and reflect on it with comments
	Paper writing and presentation followed by discussion
	Report writing and presentation followed by discussion

5. Evaluation

Evaluation (Internal Assessment and External Examination)

Nature of course	**Internal Assessment**	**Semester Examination**	**Total Marks**
Theory	40 Marks	60 Marks	100rks

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

Internal Evaluation **40 Marks**

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 assignment (written assignment)	10 Marks
4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

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

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
3.	Subjective long questions (2 questions with 1 ‘OR ‘questions x 10 marks)	20 Marks
	Total	60 arks

6. Recommended Books and References

Recommended Books

Arnikar, H. J. (2011). *Essentials of nuclear chemistry (4th revised ed.*). India: New Age International Publishers **(For all units)**

Arora, M.G. & Singh, M. (1998) *Nuclear Chemistry*. New Delhi: Anmol publications Pvt. Ltd. **(For all units)**

Srivstava, A.K., & Jain, P.C. (1983) *Elements of nuclear chemistry*. India: S. Chand and Company Limited **(For unit I)**

References

Choppin, G. R., & Rydberg, J. (1980). *Nuclear chemistry: Theory and applications.* Pergrman Press

Friedlander, G., Kennedy, J. W., Mahap, E. S., & Miller, J. M. (1973). *Nuclear and Radio chemistry (3rd ed.)*. John-Wiley and Sons

Kaplan, I. (1987). *Nuclear physics (2nd edition).* India: Narosa Publishing House

Kellor, C. (1988). *Radio chemistry*. Ellis Norwood Limited

Lefort, M. (1968) *Nuclear chemistry* (*In Yaffe, L. edition*). London and New York : Academic press

Rao, K. N. & Arnikar, H. J. (1986). *Artificial radioactivity.* Tata Mc Graw-Hill.

Sonntag, C.V. (1987). *The chemical basis of Radiation Biology*. Taylor and Francis. Spinks, J. W. T. &

Woods, R. J. (1976). *An introduction to radiation chemistry*. John Wiley

Chem. Ed. 547: Polymer Chemistry

Course No.: Chem. Ed. 547 (Elective) | Nature of course: Theoretical

Level: M.Ed. in Chemistry | Credit hours: 3

Semester: Fourth | Teaching hours: 48

Periods per week: 3

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1. Course Description

This course is designed to acquaint the students with the knowledge and skills of Polymer chemistry. The main aim of the course is to widen the horizon of knowledge and understanding of students on polymer chemistry. It deals with polymer chemistry with special emphasis on kinetics of polymerization, Polymerization techniques and rheology, chemical and geometrical structure of polymer molecule, individual polymers, polymer reactions, polymer synthesis and its application, and polymer degradation and environment issues.

2. General Objectives

The general objectives of this course are as follows:

- To provide students with in-depth knowledge of polymer chemistry.
- To familiarize the students with the basic concepts of polymer science, polymer structure, and polymerization techniques.
- To enable the students to elaborate on chain, free radical, ionic, coordination, and step polymerization.
- To make the students familiar with polymerization techniques and their rheology
- To provide students with knowledge of the kinetics of free-radical chain, cationic, and anionic polymerization
- To make the students familiar with the chemical and geometrical structure of polymer molecules.
- To make the students knowledgeable about polyethylene, polyester, polycarbonate, etc., and their applications.
- To enable the students to elaborate on polymer synthesis and its application.
- To inculcate knowledge and skills in polymer chemistry through the study of degradation and environmental issues in polymers among the students.

3. Specific Objectives and Contents

Specific objectives	Contents

• Introduce polymer chemistry and kinetics of polymerization • Classify polymer on the basis of homopolymer and copolymer, addition and condensation, thermosetting and thermoplastic polymer, and biodegradable and non-biodegradable polymer. • Describe the process of chain, free radical, and Ionic polymerization. • Explain coordination polymerization with Ziegler-Natta catalysts. • Elaborate step polymerization on the basis of polycondensation, Polyaddition and ring opening polymerization. • Explain the kinetics of free-radical chain polymerization. • Deduce the equation of kinetic chain length and Mayo equation. • Describe the kinetics of Cationic and Anionic polymerization.	**Unit I: Chemistry of Polymerization and Kinetics (8)** 1.1 Introduction 1.2 Classification of polymers 1.3 Chain Polymerization 1.4 Free radical polymerization 1.5 Ionic Polymerization 1.6 Coordination Polymerization 1.7 Step Polymerization 1.8 Kinetics of Free-radical chain polymerization 1.9 Equation of kinetics chain length and Mayo equation 1.10 Kinetics of Cationic, Anionic polymerization.
• Describe the different techniques of polymerization on the basis of bulk, solution, Suspension and emulsion polymerization. • Define and explain Solid-state, Gas phase and Plasma polymerization techniques. • Describe rheology of polymeric materials on the basis of Hooke's and Newton's equation. • Explain The Maxwell and Voigt models for visco-elasticity • Illustrate the deformation behavior of polymeric materials	**Unit II: Polymerization Technique and Rheology (6)** 2.1 Bulk polymerization 2.2 Solution polymerization 2.3 Suspension Polymerization 2.4 Emulsion polymerization 2.5 Solid-state, Gas phase and Plasma polymerization 2.6 Rheology of polymeric materials 2.6.1 Hooke's equation 2.6.2 Newton's equation 2.7 The Maxwell and Voigt models for visco-elasticity

• Describe the relaxation and retardation Of different polymeric materials.	2.8 Deformation behavior of polymeric materials 2.9 Relaxation and Retardation
• Explain the meaning and application of polymer microstructure. • Illustrate the microstructure of polymer on the basis of chemical structure. • Elaborate polymer microstructure on the basis of geometrical structure.	**Unit III: Chemical and Geometrical Structure of Polymer Molecules (4)** 3.1 Polymer microstructure 3.2 Microstructure based on the chemical structure 3.3 Microstructure based on the geometrical structure
• Explain Polyethylene polymer on basis of its structure, uses and intermolecular and intramolecular chain transfer reaction. • Describe polyesters and its application with its general structure and characteristics. • Explain polyureas, its general characteristics and application. • Elaborate the structure of polyvinyl alcohol and carbonate with their characteristics and uses • Explain the meaning, structure, general characteristics and application of PVC. • Discuss silicon polymers and its uses. • Explain epoxy polymers and its uses.	**Unit IV: Individual Polymers (8)** 4.1 Polyethylene 4.2 Polyesters 4.3 Polyureas 4.4 Polyvinyl alcohols 4.5 Polyvinyl carbonate 4.6 Polyvinyl chlorides 4.7 Silicon polymers and its uses 4.8 Epoxy Polymers
• Illustrate the reaction of polymers which emphasizes on hydrolysis, acidolysis, aminolysis, and hydrogenation. • Explain the addition and substitution reaction of polymer. • Describe the reaction of hydroxyl,	**Unit V: Polymer Reactions (7)** 5.1 Introduction 5.2 Hydrolysis reaction 5.3 Acidolysis reaction 5.4 Aminolysis reaction 5.5 Hydrogenation reaction

aldehyde, ketonic, and carboxylic. • Explain the cyclisation reactions of polymer. • Elaborate cross-linking reaction on the basis of cross-linking during polymerization, Valcanisation and cure reactions. • Describe the substitution reaction of commercial PVC	5.6 Addition and substitution reactions 5.7 Reaction of various specific groups 5.8 Cyclisation reactions 5.9 Cross linking reactions 5.10 Substitution reaction of commercial PVC
• Define polymer synthesis. • Describe the synthesis process on the basis of monomer purification, bulk polymerization of styrene and emulsion polymerization of styrene. • Explain the process of isolation and purification of polymer. • Explain the application for polymeric materials for the membrane separations on filtration, gas, liquid and other separations. • Explain biomedical applications for artificial organs, controlled drug delivery and Hemodialysis and Hemofiltration. • Describe the applications in electronics on the basis of electrically conductive polymers, electronic shielding and encapsulation. • Illustrate the drag reduction application of polymer.	**Unit VI: Polymer Synthesis and its Application (7)** 6.1 Introduction 6.2 Polymer synthesis 6.3 Polymer synthesis process 6.4 Isolation and purification of polymers 6.5 Application for Membrane separations 6.6 Biomedical applications of polymers 6.7 Applications in electronics 6.8 Application of drag reduction
• Define polymer degradation • List the various types of degradation. • Describe thermal degradation on the basis of factors affecting the C-C bond stability, other factors affecting thermal stability	**Unit VII: Polymer Degradation and Environmental Issue (8)** 7.1 Introduction 7.2 Types of degradation 7.3 Thermal degradation

and polymer degradation involving substituent groups. • Illustrate the mechanical and degradation by ultrasonic waves. • Explain photo degradation on the basis of photostabilisers. • Illustrate the degradation process of high energy radiation polymer. • Define oxidative degradation and explain the mechanism of Rubber and ozone oxidation. • Illustrate the oxidative degradation of saturated polymers. • Describe the management of plastics in the environment on the basis of recycling, incineration and biodegradation.	7.4 Mechanical degradation 7.4 Degradation by Ultrasonic waves 7.5 Photo-degradation 7.6 Degradation of High energy radiation 7.8 Oxidative degradation 7.9 The management of plastics in the environment

Note: The figure with in the parentheses indicates the approximate periods for respective units.

4. Instructional Techniques

The instructional techniques for this course are divided into two groups. 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
- Demonstration
- Presentation
- Inquiry
- Project work
- Cooperative and collaborative work
- Internet (web) surfing
- Group work

4.2 Specific Instructional Techniques

Units	Specific Instructional Techniques
I	Classroom presentation on thermosetting and thermoplastics,

	biodegradable and non-biodegradable polymers
II	Report writing and presentation followed by discussion
III	Presentation by studying the handouts provided by the teacher followed by teachers' suggestions
IV	Presentation by studying the handouts provided by the teacher followed by teachers' suggestions
V	Paper writing and presentation followed by discussion
V I	Presentation by studying the handouts provided by the teacher followed by teachers' suggestions on polymer synthesis issue.
V II	Presentation by studying the handouts provided by the teacher followed by teachers' suggestions on polymer degradation topic

5. Evaluation

Evaluation (Internal Assessment and External Examination)

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.*

Internal Evaluation **40 Marks**

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 assignment (written assignment)	10 Marks
4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

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

4.	Objective questions (Multiple Choice Questions 10 x 1mark)	10 Marks
5.	Subjective short questions (6 questions with 2 'OR 'questions x 5 marks)	30 Marks
6.	Subjective long questions (2 questions with 1 'OR 'questions x 10 marks)	20 Marks
	Total	60 arks

Recommended Books and References

Recommended Books

Fried, J. R. (2000). *Polymer science and technology*. New Delhi: Prentice Hall of India Pvt. Ltd**. (For all units)**

Gowariker, V. R., Vishwanathan, N. V. & Sreedhar, J. (2001). *Polymer science*. New Delhi: New age international Pvt. Ltd. Publishers. **(For all the units)**

References

Pandit, C. N., Subedi, R. R. & Tiwari, P. (2071). *A textbook of chemistry*; Kathmandu: Cambridge Publications.

Prakash, S., Tuli, G. D. & Madan, R. D. (2012). *Advanced inorganic chemistry*; New Delhi: S. Chand and Company.

Ed. CE. 545: Qualitative Research

Course No.: Ed. CE. 545 (Elective)	Nature of course: Theoretical
Level: M. Ed.	Credit hours: 3
Semester: Third	Teaching hours: 48

1. Course Description

The major aim of this research is to help students acquire essential knowledge and skills required for undertaking research in the field of curriculum and assessment and design a qualitative research project in this field using an appropriate qualitative design. In particular, this course aims to provide students with a basic understanding of qualitative research and enable them to design appropriate qualitative research for studying the issues of curriculum and assessment. While doing so, the students will be able to choose an appropriate paradigm within which they frame their research for exploring the issues of curriculum, testing, assessment, and evaluation. They will be able to select relevant approaches, designs, and tools for conducting research through qualitative methods. This course helps students engage in the field as qualitative researcher and enables them to collect rich, emic data from participants and the field. This course will make students aware of ethical issues and the strategies to deal with them. By participating in the course, the students will also be able to process the qualitative information or data and make meaning from the data. Finally, this course enables the students to write qualitative research proposals and reports in APA format.

2. General Objectives

The general objectives of this course are as follows:

- to make students familiar with different research paradigms in relation to the research in curriculum and assessment.
- to introduce the concept of qualitative research methods with reference to various qualitative paradigms and draw implications of these methods and paradigms for undertaking research in curriculum and assessment
- to acquaint the students with major considerations in conducting qualitative research and equip them with knowledge and skills to conduct research in curriculum and assessment.
- to help students choose appropriate qualitative research design.
- to help students develop skills in tool construction for research in curriculum and assessment using qualitative approach.
- to equip the students with skills in collecting, analyzing, and interpreting qualitative data that help them derive new knowledge in the field of curriculum and evaluation.

- to develop skills for preparing qualitative research reports in some fields of curriculum and assessment.

3. Specific Objectives and Contents

Specific Objectives	Contents
● provide the basic concept of research paradigm in relation to research in curriculum and assessment ● Identify, explain and critically evaluate the strengths of the major types of research paradigms used in the field of curriculum and assessment. ● Clarify the connection / relationship between paradigms and qualitative research. ● Use the concepts of research paradigm for curriculum and assessment-related research	**Unit 1: Research and research Methodologies for Studying the Issues Related to Curriculum and/or Assessment (10)** 1.1 Overview of the research paradigm and its need for undertaking research in curriculum and assessment. 1.2 Components of the Research Paradigm (Ontology, epistemology, axiology, rhetoric, methodology, and Cosmology) with relation to research in curriculum and assessment 1.2 Major qualitative research paradigms used in the research of curriculum and assessment 1.2.1 Post-positivism 1.2.2 Constructivism/interpretivism 1.2.3 Critical theory 1.2.4 Transformative paradigm 1.3 Use of paradigm for qualitative research in relation to various areas and issues of curriculum and/or assessment
● Clarify concepts of qualitative research and its need for studying issues of curriculum and assessment ● Describe characteristics of qualitative research in relation to issues of curriculum and assessment. ● Differentiate between qualitative and quantitative research by selecting particular examples from curriculum and assessment. ● Explain five approaches to qualitative research, relating them to the research issues of curriculum and assessment.	**Unit 2: Approaches to Qualitative Research to Undertake Research in Curriculum and Assessment (12)** 2.1 Concepts of qualitative research and its relevance to study curricular issues 2.2 Characteristics of qualitative research in reference with curricular issues 2.3 Difference between qualitative and quantitative research with examples from curriculum and/or assessment 2.4 Qualitative research designs for studying the issues of curriculum and assessment (In terms of definition and background, types, process and examples; students will pick up examples from the field of curriculum and assessment for discussion.) 2.4.1 Narrative 2.4.2 Phenomenology 2.4.3 Grounded theory 2.4.4 Ethnography 2.4.5 Case studies

• Select appropriate research topic, issues and problems from the field of curriculum and assessment • Derive appropriate objectives and/or research questions from the chosen field of curriculum and/or assessment. • Use appropriate purposeful sampling strategies for studying curricular issues • Make plan and strategies for doing qualitative interviewing and observation • Use qualitative data collection strategies for studying curricular issues • Write field-notes during the fieldwork. • Maintaining quality and credibility in qualitative study on curricular issues	**Unit 3: Designing Qualitative Research in Curriculum and Assessment (10)** 3.1 Selecting appropriate research problems and issues from the field of curriculum or assessment 3.2 Deriving appropriate research objectives and research questions 3.3 Designing and selecting samples 3.3.1 Sampling strategies for qualitative research 3.3.2 Study populations and sample frames 3.3.3 Designing a purposeful sample 3.3.4 Implementing the sampling design 3.4 Choosing data collection methods for studying curricular issues 3.4.1 Qualitative interviewing 3.4.2 Qualitative observation 3.4.3 Focus group discussion 3.5 Qualitative data: Transcription and Field-notes 3.5.1 The process of writing field-notes 3.5.2 The form of field-notes 3.5.3 Transcribing the data 3.6 Enhancing the quality and credibility of research on curricular issues 3.6.1 Triangulation 3.6.2 Prolonged engagement 3.6.3 Persistent observation 3.6.4 Peer review/peer debriefing and support 3.6.5 Audit trail 3.6.6 Member checking 3.6.7 Negative case analysis

• Reflect on the challenges and features of analyzing and interpreting meaning of curriculum and assessment • Select appropriate data analysis procedures in researching issues of curriculum and assessment. • Elaborate the way of representing, reporting, and interpreting findings of curricular issues. • Identify the possible ethical challenges and considerations in researching curricular issues.	**Unit 4: Analysis and Interpretations of Information on Curriculum and Assessment (10)** 4.1 The challenges in analysis and interpretation of curricular issues 4.2 Features of analysis and interpretation of meaning through qualitative curricular inquiry 4.3 Organizing data for interpretation 4.4 Data analysis strategies for qualitative curricular research 4.4.1 Exploring the general sense of data 4.4.2 Coding the data 4.4.3 Themes generation 4.4.4 Representing and reporting findings 4.4.5 Interpretation of findings 4.5 Ethical Considerations for qualitative research in curriculum and assessment 4.5.1 Research ethics 4.5.2 Informed consent 4.5.3 No Deception/honesty 4.5.4 Privacy and confidentiality 4.5.5 Accuracy
• Use appropriate writing style in qualitative report on curricular issues • Prepare the format and structure for qualitative research report • Use APA citation in qualitative research report • Use APA referencing in qualitative report. • Critically appraise the quality of qualitative report • Prepare qualitative research report after accomplishing the research in the field of curriculum and/or assessment.	**Unit 5: Report writing for qualitative research in curriculum and assessment (6)** 5.1.1. General features of qualitative research writing on curricular issues 5.1.2. Integrating qualitative data into analysis 5.1.3. Interpretation, reflection, abstraction and theorizing 5.1.4. Physical structure and content of the report 5.1 APA citations in qualitative research in curriculum and/or assessment 5.2 APA referencing in qualitative research in curriculum and/or assessment

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

4. Instructional Techniques

4.1 General Techniques

- Lecture with discussion
- Demonstration
- Home assignment and self-study

4.2 Specific Instructional Techniques

- Unit	- Activity and Instructional Techniques

I	● Divide the students into groups ● Let each group of students choose one research issue from curriculum or assessment and choose one research paradigms from the following list (a) Post-positivism, (b) Constructivism, (c) Transformative paradigm, (d) Pragmatic Paradigm ● Let the groups discuss why this paradigm is relevant for this study and prepare 2/3-page report ● Share the report in the classroom followed by discussion
II	● Divide the students into groups ● Let each group of students choose one research problem or research issue for each of the following designs: (a) Narrative, (b) Phenomenology, (c) Grounded theory, (d) Ethnography, and (e) Case studies ● Let the group discuss how such problems are best solved using these designs and prepare 2/3-page report ● Share the report in the classroom, followed by discussion
III	● Ask students to construct qualitative information tools in relation to their research issues in curriculum and assessment.
V	● Search and review some qualitative research reports from the field of curriculum and/or assessment and comment on the overall structure, writing and analyzing style, and citation and referencing

5. Evaluation

5.1 Internal Evaluation 40%

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

1)	Attendance		5
2)	Participation	5	
3)	First assignment/book review/written assignment/quizzes		10
4)	Second assignment/paper writing, or presentation	10	
5)	Third assessment/ written test (1 or two)	10	
	Total	40	

5.2 External Evaluation (Final Examination) 60%

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

1)	Objective type question (Multiple choice questions, 10 x1)	10	
2)	Short answer questions (6 questions x 5)	30	
3)	Long answer questions (2 questions x 10)		20
	Total	60	

6. Recommended and Reference books

Recommended Book

Creswell, J.W., & Poth, C.N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage

Reference

Denzin, N. K., & Lincoln, Y. S. (2017). *The Sage handbook of qualitative research* (5th ed.). Sage.

Miles, M. B., Huberman, A.M., & Saldana, J. (2018). Q*ualitative data analysis: A method sourcebook* (4th Ed.). Sage.

Cohen, L., Manion, L. & Morrison, K. (2011). *Research methods in education* (7th ed.). Routledge.

Ed. CE. 547: Management of Open and Distance Learning

Course No.: Ed. CE. 547 (Elective) Nature of course: Theoretical
Level: M. Ed. Credit hours: 3h
Semester: Fourth Teaching hours: 48h

1. Course Description

This is an elective course designed for the students specializing in Curriculum and Evaluation. This course deals with the concepts of open and distance learning (ODL), creating learning materials for ODL, tutoring and supporting students, and assessing the students in ODL. In this course, students' knowledge in ODL will be enriched through different instructional techniques. The course aims to enable the students in planning and implementing the ODL programmes.

2. General Objectives of the course

The general objectives of this course are as follows:

- to familiarize the students with open and distance learning.
- to equip the students with knowledge and skills in creating ODL materials
- to acquaint the students with tutoring skills and supporting students in ODL.
- to make the students familiar with major methods and problems of assessment in ODL and the ways of dealing with problems in ODL assessment.

3. Course Outlines

Specific Objectives	Contents
• Clarify the concept of open learning, distance learning and ODL. • Identify the key characteristics of ODL. • State the advantages of ODL for students and providers/ government. • Describe the various approaches to ODL • Identify and explain the various models of distance learning. • Explain the ways maximize the chances of managing change successfully.	**Unit I : Introduction to Open and Distance Learning (ODL) (6)** 1.1 Concept of distance learning, open learning and ODL 1.2 Key characteristics of ODL 1.3 Advantages of ODL for students and providers/ government 1.4 Approaches to ODL 1.5 Models of distance learning 1.5.1 Examination preparation model 1.5.2 Correspondence education model 1.5.3 Group distance education model 1.5.4 Learner-centered model 1.5.5 Multiple mass media model 1.5.6 Current models of distance learning 1.6 Change management 1.6.1 Resistance to change 1.6.2 Overcoming resistance to change 1.6.3 Systematic change management
• Explain the concept of instructional design. • Describe the theories of instructional design. • Describe the characteristics of adult learners and its implication for instructional design of ODL	**Unit 2 Creating Learning Materials for ODL (20)** 2.1 Concept of instructional design 2.2 Theories of instructional design 2.3 Adult learners 2.3.1 Characteristics 2.3.2 Implication for instructional design of ODL

• List the characteristics of good ODL materials • Differentiate between ODL materials and other educational materials. • Compare ODL materials with textbook. • Explain the different methods of acquiring ODL materials • Write a unit for ODL material and update. • Explain the purposes and structure of a study and guide the potential contents its. • Explain the ICT materials to support learners of ODL.	2.4 Characteristics of good ODL materials 2.5 Difference at between of ODL materials and other education materials 2.6 Comparison of ODL materials and textbook 2.7 Acquiring ODL materials: Make, buy or adopt 2.8 Writing a unit 2.8.1 Introduction 2.8.2 Layout 2.8.3 Developmental testing 2.8.4 Updating materials 2.9 Study guide 2.9.1 Purposes 2.9.2 Potential contents of a study guide 2.9.3 Structure of a study guide 2.10 ICT materials to support learners
• Explain the tutor's role in ODL. • Identify the attributes of an idle tutor. • Describe the reasons for offering tutoring and providing support to the students. • Describe the core ODL tutoring skills of the tutor. • Describe the various types of tutoring. • Explain the factors of monitoring tutors in ODL. • Describe the sustaining responsibilities of the tutors. • Describe the counseling functions. • Identify the necessary information to be provided to the students.	**Unit 3 : Tutoring and Supporting Students (14)** 3.1 Tutor's role in ODL 3.2 Attributes of an idle tutor 3.3 Reasons for offering tutoring and support 3.4 Core ODL tutoring skills 3.4.1 Supporting 3.4.2 Guiding learning 3.4.3 Enabling learning 3.4.4 Administrative skills 3.5 Types of tutoring 3.5.1 Face-to-face 3.5.2 Telephone 3.5.3 On-line tutoring 3.6 Sustaining responsibilities of the tutors 3.7 Monitoring tutors 3.8 Counselling students 3.9 Information to students
• Explain the purposes of assessment and feedback in ODL. • Classify the types of assessment in ODL. • List the features of good assessment practice. • Describe the methods of assessment in ODL • Plan the effective assignments and marking scheme for the course.	**Unit 4 : Assessment in ODL (8)** 4.1 Purposes of assessment and feedback in ODL 4.2 Types of assessment 4.3 Features of good assessment practice 4.4 Methods of assessment 4.4.1 Examination 4.4.2 Tutor-marked assignments 4.4.3 Portfolios 4.4.4 On-line assignments 4.5 Planning effective assignments 4.5.1 Art of marking assignments 4.5.2 Dealing with problems in ODL assessments

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

4. Instructional Techniques

4.1 General Techniques

- Lecture with discussion
- Demonstration
- Self study

4.2 Specific Instructional Techniques

Unit	Activities and Instructional Techniques
	• Divide the students into 4 groups • Let each group of students prepare one/two page report on (a) characteristics of ODL, (b) advantages of ODL for students, (c) advantages of ODL for providers/ government, and (d) approaches to ODL • Presentation of report in the classroom followed by discussion
	• Students will be divided into pairs. • Each pair will be assigned to write different 2/3 subunits of this course as an ODL material • Let each pair prepare 5/6 page ODL material • ODL material presentation of in the classroom followed by discussion
	• Divide the students in different groups. • Let 4 group of students prepare one/two page report on Core ODL tutoring Skills (a) Supporting, (b) guiding learning, (c) enabling learning, and (d) administrative skills and 3 groups on Types of tutoring (e) Face-to-face, (f) telephone, and (g) on-line-tutoring. • Presentation of the report in the classroom followed by discussion
	• Divide the students in different groups. • Let each group of students prepare one/two page report on methods of assessment (a) examination, (b) tutor-marked assignments, (c) portfolios, and (d) on-line assignments. • Presentation of the report in the classroom followed by discussion

5. Evaluation

5.1 Internal Evaluation 40%

Internal Evaluation will be conducted by the subject teacher based on following activities.

1) Attendance and participation 10 points
2) First assignment/written assignment/quizzes 10 points
3) Second assignment/ODL material writing and or presentation 10 points
4) Third assessment/ written test (at least one) 10 points
   Total 40 points

5.2 External Evaluation (Final Examination) 60%

Examination Division, Dean's Officewill conduct final examination at the end of semester.

S.No.	Type of Questions	No. of questions & points	Points
1.	Objective type questions	Multiple choice 10 x1 point	10 points
2.	Short answer questions	6 questions x 5 points with 2 or questions	30 points
3.	Long answer questions	2 questions x 10 points with 1 or question	20 points
	Total		60 points

6. Recommended and Reference Books

Recommended Books

Commonwealth of Learning (2003). *Tutoring in open and distance learning: A handbook for tutors*, Vancouver: Commonwealth of Learning. (For unit I, III, and IV)

Commonwealth of Learning (2004). *Planning and implementing open and distance learning systems: A handbook for decision makers*, Vancouver: Commonwealth of Learning. (For unit I, II, III, and IV)

Commonwealth of Learning (2005). *Creating learning materials for open and distance learning: A handbook for authors and instgructional designers*, Vancouver: Commonwealth of Learning. (For unit I)

Johnson, J. L. (2003). Distance education: The complete guide to design, deilvery, and improvement, New York: teachers College Press (For unit I and IV)

Mitra, S. (Dr.) (2008). Manual for the tutors of Learning centers in open schools, Vancouver: Commonwealth of Learning. (For unit I and II)

Reference Books

Melton, R. F. (2004). *Planning and developing open and distance learning: A quality assurance approach*, London: Taylor and Francis e-library.

Perraton, H. (2005). *Open and distance learning in the developing world*, London: Taylor and Francis e-library.

Eco. Ed. 546: Managerial Economics

Course No.: Eco.Ed. 546 | Nature of course: Theoretical
Level: M. Ed. | Credit hours: 3
Semester: Fourth | Teaching hours: 48

1. Course Description

This course provides knowledge of tools and techniques of economics and its application in various areas of corporate decision making. The contents included in the course are decision-making criteria and procedures, demand and cost theory, pricing theory (including price positioning), managerial theories and the organizational nature of the business. The course helps the students to appraise business around them and to develop skills related to operate decision on the future prospects of business.

2. General objectives

The general objectives of this course are as follows.

- To make the students familiar with nature and scope of business economics,
- To build up the skills of economic way of thinking to individual decisions and business decisions among the students,
- To craft the students able in using the data for estimating and the forecasting of demand taking into account the price and income of the consumers,
- To make the students knowledgeable about production and pricing system in the markets,
- To make the students able in analyzing managerial theories and model of the firms,
- To enable the students in assessing the behavior of organization and the effect of motivation on it,
- To familiarize the students with the role of aggregate variables which play in market economies in affecting the individual firm.

3.**Specific objectives and contents**

Specific Objectives	Contents
• To describe the nature, scope and decision-making process of managerial economics. • To explain the theory of firm; profit maximization, cost minimization and economic optimization. • To define the concept of time value of money.	**Unit I: Nature, and Scope of Managerial Economics (10)** 1.1 Nature and scope of managerial economics 1.2 Importance of economic analysis in business decision 1.3 The managerial decision-making process 1.4 Theory of firm, profit maximization, cost minimization and economic optimization 1.5 Concept of time value of money.
• To explain the concept of demand function. • To describe sources and types of data. • To apply demand estimation and forecasting methods in managerial economics.	**Unit II: Demand Analysis, Estimation and Forecasting (5)** 2.1 Modeling of consumer's demand 2.2 Sources of data: primary vs secondary; types of data: time series. cross section and panel data 2.3 Forecasting consumer's demand: consumption level method, moving average method, regression analysis method
• To describe and estimate production function. • To explain economies of scale and its	**Unit III: Production and Cost Analysis (5)** 3.1 Production functions, types and estimation 3.2 Economies of scale and economies of

scope	scope.
• To explain break even aanalysis. • To define monopoly power and regulation. • To explain Collusion and Cartel. • To regulating the Market Economy	**Unit IV: Break Even Analysis and Market Structure (10)** 4.1 Break Even Analysis (BEA): 4.1.1 Assumptions and meaning of BEA. 4.1.2 BE chart and its alternative form. 4.1.3 Formula method for determining BEP. 4.1.4 Usefulness and limitations of BEA. 4.2 Monopoly power and its regulation 4.2.1 Monopoly power and its measurement 4.2.2 Monopoly regulation in practice 4.3 collusion and cartel, 4.3.1 Collusion and cartel 4.3.2 Nepali type cartel 4.4 Regulating the market economy 4.4.1 Taxes and subsidies 4.4.2 Costs of regulation
• To analyze the Baumol's theory of sales revenue maximigation. • To explain the Marris's model of managerial enterprise, and Williamson's model of managerial discretion.	**Unit V: Managerial Theories and Models of the Firm (5)** 5.1 Baumol'stheory of sales revenue maximization 5.2 Marris's model of managerial enterprise 5.3 Williamson's model of managerial discretion.
• Todescribe the reasons to expand an enterprise and its classification • Toexplain the various forms of transaction costs and its boundaries • Toassess the behavior of organization and the effect of motivation on it.	**Unit VI: Economics of Organization (6)** 6.1 Reasons to expand an enterprise, 6.2 Classifying business expansion 6.2.1 Value chains 6.2.2 Horizontal and vertical integration 6.2.3 Conglomerate 6.3 Transaction costs and boundaries of the firm 6.3.1 cost center versus profit centers 6.3.2 Transfer pricing 6.3.3 Employee motivation
• To analyse the process of income determination in a closed and open exonomy. • Toexplain the concept of equilibrium in goods and money market. • Tostate the IS-LM-BP model with flexible exchange rate. • Toanalyze the concept of aggregate demand and aggregate supply and equilibrium in a closed economy.	**Unit VII: National Income Accounting and their Implication in Business Decision (7)** 7.1 Income determination in a closed and open economy 7.2 Equilibrium in the goods market, in the money market and bops. 7.3 IS-LM-BP model with flexible exchange rates 7.4 Aggregate demand and aggregate supply and equilibrium in a closed economy both in short run and long run

Note: The figures in the parentheses indicate the approximate periods for the respective units.

4. Instructional Techniques

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

4.1 General Techniques

a. Lecture and illustration
b. Discussion and demonstration
c. Individual and group work/project method
d. Report writing and classroom presentation
e. Inquiry and question answer
f. Case study

4.2 Specific Instructional Techniques

Unit	**Specific Instructional Technique**
Unit I	Review of materials on basic concepts by the students and group presentation. Present of review report by the students followed by discussion.
Unit V	Guest lecture on economic organization and managerial theories
Unit VI	Project work on the estimation of the variables, such as, consumption, investment, exports, and imports.

5. Evaluation Scheme

5.1 Internal Evaluation 40%

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

S.N.	Nature of Questions	Points
1.	Attendance	5
2.	Participation in learning activities	5
3.	First assessment	10
4.	Second assessment (Paper submission)	10
5.	Final assessment	10

5.2 External Evaluation (Final Examination) 60 %

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

S.N.	Nature of Questions	Number of Questions	Points
1.	Objective type question (Multiple choice)	10× 1	10
2.	Short answer questions (6 questions with 2 OR questions × 5 points)	6× 5	30

2.	Long answer questions (2 questions with 1 OR question × 10 points)	2× 10	20

6 Recommended Books and References

6.1 Recommended Books

Baye, M. (2010), *Managerial Economics and Business Strategy* (7th ed.). Boston: McGraw-Hill Irwin. **(For Unit I, II, VI, VII).**

Baye, M. (2010), *Study guide for use with Managerial Economics and Business Strategy* (7th ed.). Boston: McGraw-Hill Irwin. **(For Unit VI and VII).**

Douglas, E.J. (1990). *Managerial Economics.* Baltimore: Prentice hall. **(For Unit V & VI).**

Hirschey, M. & Pappas, J.L. (1998). *Fundamentals of Managerial Economics.* New Delhi: Dryden press. **(For Unit I, II, III& IV).**

Hirschey, M. (2003*). Managerial Economics (10thed.).* Balitmore: Thomson South-Western. **(For Unit I, II &III).**

Keat, P. & Young, P. (1992). *Managerial Economics.* London: MacMillan. **(For Unit III, IV, V, VI& VII).**

Kent, P. & Young, P. (2003). *Managerial Economics: Economic Tools for Today's Decision Makers* (4thed.). London: Pearson. **(For Unit III, IV, V, VI& VII).**

Koutsoyiannis, A. (1979). *Modern Microeconomics.* London: MacMillan. **(For Unit III & IV).**

Mansfield, E. (1998), *Managerial Economics: Theory, Application and Cases.* New Delhi: Wnortion &co. **(For Unit V &VI).**

Michael, R.B. (2000). *Managerial Economics and Business Strategy.* New York: McGraw hills. **(For Unit I, II, III, IV& V).**

Mithani, D.M. (2010). *Managerial Economics: Theory and Applications (5th ed.).* New Delhi: New house. **(For Unit IV).**

Salvatore, D. (2001). *Managerial Economics.* New York*:* McGraw hill. **(For Unit I, II, III, IV, V& VI).**

Salvatore, D. (2010). *International Economics* New Delhi: Willey India. **(For Unit VII).**

Thomas, M. (2002). *Managerial Economics: In a Global Economy (7th ed.).* New York: McGraw hills. **(For Unit I & VI).**

6.2 References

Adhikari, D. (2076). *Economics for Construction Managers*, Kathmandu: Dream land publication pvt.ltd.

Chevalier, J.A.& Scharfstein, D.S. (1996). *Capital*-market imperfections and countercyclical markups: theory and evidence. *American Economic Review.*5(86), 703-725.

De Fraja, G. (1996). Entrepreneur or manager: who runs the firm? *Journal of Industrial Economics.*6(44), 89-98.

Goering, G.E. (1996). Managerial style and the strategic choice of executive incentives. *Managerial & Decision Economics.*17(1), 71-82.

Kehoe, M.R. (1996). Quality uncertainty and price in monopoly markets. *Journal of Industrial Economics.*5(44), 25-32.

Swaney, J. A. (1996). Comparative risk analysis: limitations and opportunities. *Journal of Economic Issues.*3(30), 463-473.

Ed. PM. 545: Monitoring, Evaluation and Research in Planning and Management

Course No.: Ed. PM. 545	Nature of the course: Theoretical
Level: M.Ed.	Credit Hours: 3
Semester: Fourth	Teaching hours: 48 hours

1. Course Description

This course is designed to provide students with perspectives on monitoring, evaluation and research in planning and management in education. It particularly acquaints the students with the performance and practices in educational planning and management, emphasizing monitoring, evaluation and research perspectives. Dynamics of monitoring and evaluation, research development results, use of qualitative and quantitative research in Educational Planning and Management, and planning educational research are the focus of this course.

2. General Objectives

The general objectives of this course are as follows:

- To enable the students to conceptualize the monitoring, evaluation and research.
- To acquaint students with the planning for monitoring, evaluation and research development results.
- To prepare students to use quantitative, and qualitative research designs to evaluate education plans and programs.
- To enable students to analyze qualitative-quantitative data for research and program evaluation in the education sector.
- To familiarize students with the potential use of monitoring, evaluation and research results concerning educational policy plans and programs.

3. Specific objectives and contents

Specific Objectives	Contents
• Clarify the concept of monitoring, evaluation and research • Identify the elements of monitoring and evaluation • Describe the importance and approaches of monitoring and evaluation • Analyze the system-based monitoring evaluation. • Describe the challenges of effective monitoring and evaluation • Identify the implication of	**Unit I: Dynamics of Monitoring and Evaluation (8)** 1.1 Concept of monitoring, evaluation and research 1.2 Elements of monitoring and evaluation: efficiency, effectiveness, relevance and sustainability 1.3 Importance of monitoring and evaluation 1.4 Approaches of monitoring and evaluation 1.5 System-based monitoring evaluation 1.5.1 Input monitoring and evaluation 1.5.2 Process monitoring and evaluation 1.5.3 Outcomes monitoring and evaluation 1.6 Challenges for effective monitoring and evaluation

monitoring and evaluation system	1.7 Implication of monitoring and evaluation system
• Identify planning for monitoring, evaluation and research. • Designing a program for monitoring and evaluation • Selecting indicators for input, process, outputs and outcomes (qualitative and quantitative) • Formulating evaluation objectives and tools • Preparing for data collection and data analysis • Applying framework and matrix for planning research • Preparation of Gantt Chart/Schedule for monitoring and evaluation	**Unit II: Planning for Monitoring, Evaluation and Research (10)** 2.1 Planning for monitoring, evaluation and research 2.2 Program for monitoring and evaluation 2.3 Indicators for input, process, outputs and outcomes (qualitative and quantitative) 2.4 Evaluate objectives and tools 2.5 Data collection and data analysis 2.6 Framework and matrix for planning research 2.7 Gantt Chart/Schedule for monitoring and evaluation
• Clarify the concept of quantitative evaluation and research design • Clarify the concept of qualitative evaluation and research design • State sample and sampling procedures in qualitative and quantitative research	**Unit III: Design for Evaluation and Research (12**) 3.1 Quantitative evaluation and Research design 3.1.1 Descriptive Research 3.1.2 Survey research 3.1.3 Correlational research 3.1.4 Quasi-experimental research 3.1.5 Experimental research 3.2 Qualitative Evaluation and Research Design 3.2.1 Ethnographic Design 3.2.2 Case Study 3.2.3 Grounded Theory 3.2.4 Phenomenology 3.2.5 Narrative 3.3 Population and Sampling Procedure 3.3.1 Probability sampling 3.3.2 Non-probability sampling

• Apply quantitate and data collection procedures • Apply qualitative data collection procedures • Relate data triangulation	**Unit IV: Data Collection and Analysis Procedures (8)** 4.1 Quantitative data collection procedures: Questionnaire/interview schedule, observation, checklist and record review format 4.2 Qualitative Data collection procedures: Observation, focus group discussion and in-depth interview 4.3 Triangulation of data (Data to data, Theory to Theory)

• Write a report applying APA format. • Disseminate the report with stakeholders.	**Unit IV: Report Writing and Dissemination (10)** 5.1 Report writing 5.2 APA Referencing and citation format 5.3 Disseminate the report

Note: The figures in the parenthesis indicate the approximate hours allotted to each unit.

4. Instructional Techniques: General and specific instructional techniques have been suggested to deliver the contents in the classroom and carry out experiential exercises. Here is a brief account of these techniques:

4.1 General Instructional Techniques

- Lecture
- Discussion
- Question-answer
- Project work

4.2 Specific Instructional Techniques

To promote experiential learning in this course, following specific instructional techniques are recommended for selected units to ensure students' active participation in the teaching-learning process and make the teaching-learning research-oriented.

Units	Specific Instructional Techniques
Unit I: Dynamics of Monitoring and Evaluation Chaplowe S.G. (2008). *Monitoring and evaluation planning.* USA: USAID. Cohen, L., Manion, L. and Morrison, K. (2013).*Research Methods in Education.* USA: Routledge. Lincoln, Y.S. and Denzin, N.K. (2005).*Strategies of Qualitative Inquiry*.CA: Sage. Marriot, N. and Goyder, H. (2009).*Manual for monitoring and evaluation education partnership.* Paris: UNESCO. Microsoft Corporation (2014). *Quality assurance: Monitoring and evaluation to inform practice and leadership, transformation framework.* US: Author. Payne, D.A. (1994). *Designing educational project and programme evaluation*. New York: Springer **6.1 References** Postlethwaite, T.N, (2004). *Monitoring*	Divide the students into different groups and provide reading materials to prepare for the presentation on the specific topic. Let the students provide comments and feedback in the presentation. Highlight important points the students raised in their presentations and provide critical feedback on the presentation for each topic.

educational achievement. Paris: UNESCO. UNESCO (2005).*Educational research: Some basic concepts and terminology.* Paris: Author. United Nations Children's Fund/ UNICEF (2009).*Child friendly schools.* USA: Author. United Nations Development Programme (UNDP) (2009). *Handbook on planning, monitoring and evaluation for development results.* USA: Author (Unit I and II) Wholey, J.S., Hatry, H.P, & Newcomer, K.E. (2010).*Handbook of practical programme evaluation.* San Francisco: Jossey-Bass (Unit II, III, IV and V) World Bank (2004).*Monitoring and evaluation: some tools, methods and approaches.* Washington, DC: Author	
Unit II: Planning for Monitoring Evaluation and Research	Divide the students into different groups and provide reading materials to prepare a planning framework in a specific area. Let the students present their framework in class. Highlight important points the students raised in their presentations and provide critical feedback on the presentation.
Unit III: Design for Evaluation and Research	Share the reading materials with the students to prepare the presentation on the specific topic. Let the students provide comments and feedback in the presentation. Highlight important points the students raised in their presentations and provide critical feedback on the presentation for each topic.

Unit IV: Data collection and analysis	Divide the students into different groups and let them prepare different types of tools. Let them present in class and allow their peers to provide feedback for improvements. Let the students visit the field for data collection Let the students analyze data and provide feedback for them.
Unit V: Report Writing and Dissemination	Let the students prepare a report applying APA referencing and citation guidelines. Let the students disseminate with stakeholders.

5. Evaluation

5.1 Internal Evaluation 40%

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

1. Attendance	05 Marks
2. Participation in learning	05 Marks
3. First assignment/assessment	10 Marks
4. Second assignment/assessment	10 Marks
5. Third assessment	10 Marks
Total	**40 Marks**

5.2 External Evaluation (Final Examination) 60%

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

1. Objective type questions (10 Multiple choice questions x 1)	10 Marks
2. Short answer questions (5 questions with 2 choice x 6)	30 Marks
3. Long answer questions (2 questions with 1 choice x 10)	20 Marks
Total	**60 Marks**

Eng. Ed. 543: Translation and Translanguaging

Course No. : Eng. Ed. 543 (Elective)	Nature of course: Theoretical
Level: M. Ed.	Credit hours: 3
Semester: 4th	Teaching hours: 48

1. Course Description

This course is aimed at exposing students to the principles and practices of translation studies and translanguaging in relation to language pedagogy. The course consists of five units. The first unit overviews basic concepts of the discipline and the concepts of translation equivalence, while the second one deals with the procedures employed in translation. The issues, problems and way outs for resolving problems occurred in the process of translation are discussed in the third unit. The remaining two units are on translanguaging whereby the fourth unit introduces translanguaging and the fifth unit is concerned with pedagogical translanguaging in particular.

2. General Objectives

The general objectives of the course are as follows:

- To provide the students with an overview of translation studies.
- To help the students understand the major aspects of translation process.
- To make them familiar with the major problems and issues in undertaking translation.
- To familiarize them in original as well as translated versions of Nepali texts (translated into English) and engage them in translating the texts from Nepali to English.
- To acquaint the students with the idea of translanguaging in the use of multiple languages.
- To familiarise them with the process of translanguaging in relation to language pedagogy.

3. Specific Objective and Contents

Specific Objectives	Contents
• Provide the students with a general understanding of translation and translation studies; • Familiarize the students with the historical background of translation studies; • Make them familiar with the translation related acts; • Discuss how translation matters in various contexts.	***Unit 1: Preliminaries of Translation and Translation Studies (8 teaching hrs)*** - Introducing translation and translation studies o The concept of translation o What is translation studies? - Historical background o An early history of the discipline o The Holmes/Toury Map o Later developments - Conceptualizing translation related acts o Kinds of translation o Valid and deficient texts o Social Translation and Interpreting o The Assessment of Translations - Does translation matter? o Why translation matters? Why does translation matter to translators,

	authors, and readers? - Why does it not matter to most publishers and book reviewers? - What is its relevance to the literary tradition in any language? - What is its contribution to the civilized life of the world?
• Provide the idea of equivalence, its types, equivalent effect and equivalent relations. • Explain the strategies and procedures of translation. • Familiarize the students on the levels of translation	***Unit 2: Translation process (5 teaching hrs)*** - Establishing equivalence o Formal and dynamic equivalence o Principle of equivalent effect o Equivalence relations (5 types: Denotative, Connotative, text-normative, formal, pragmatic) - Strategies of translation o Two strategies - Procedures of translation o Seven procedures o Supplementary translation procedures - Levels of translation o Levels of translation and analytical steps o Semantic and communicative translation
• Discuss the major issues of translation and translation studies • Explain the problems that occur in translation • Introduce the concept of gap in translation and suggest the ways for bridging gaps	***Unit 3: Issues, problems and way outs (8 teaching hrs)*** - Central issues of translation o Language and culture o Types of translation o Decoding and recoding o Problems of equivalence o Loss and gain o Untranslatability o Science or 'secondary activity'? - Problems of translation o Structures o Poetry and translation o Translating prose o Translating dramatic texts - Gaps o Assessment of knowledge gaps o Intertemporal gap - Way outs for bridging gaps o Bridging cultural differences o Bridging linguistic differences
• Discuss the application of translation in relation to English and Nepali. • Familiarize them in the original as well as translated versions of Nepali texts into English • Engage them in translating Nepali texts into English.	***Unit 4: Translation in relation to English and Nepali (17 teaching hrs)*** o English as the lingua franca of translation o Survey of translation in Nepali o Comparative analytical study of selected Nepali (source language) texts translated into English (target language) (the following texts) - Rimal, Gopal Prasad. 2006. *Masan* (English translation of the drama *d;fg* (trns. by Sangita

	Rayamajhi). Kathmandu: Ratna Pustak Bhandar - Ghimire, Jhamaak. 2012. *A flower in the midst of thorns.* (English translation of the autobiographical essays hLjg sfF8f ls km"n by Jhamak (trans. by Nagendra Sharma & Safal Sharma). Kathmandu: Oriental Publication - Koirala, Bishweshwar Prasad. (2013) *The colonel's horse* (English translation of the story कर्नेलको घोडा (trans. by Govinda Raj Bhattarai), in *Contemporary Short Stories of the SAARC Region*. SAARC Cultural Centre, Sri Lanka. - Brajaki, Manu (2020). *Solitude* (translation of the story एकान्त (trans. by Tej Ratna Kansakar). *Stories from Nepal*. Kathmandu: Nepal Academy. - Nepal Gazette. (2059.2.16 [30 May 2002]). Education Rules, 2059 (2002) (translation of lzIff lgodfjnL, @)%(). www.lawcommission.gov.np *(The students will be engaged in studying the above texts produced in both languages and analyzing them from various angles.)* ○ Translation activity from selected Nepali texts (Source language) into English (target language) from the following texts: - Ghimire, Jhamaak. hLjg sfF8f ls km"n (Essays I, II & VIII) - Koirala, Bishweshwar Prasad. कर्नेलको घोडा. - Brajaki, Manu एकान्त - Nepal Gazette. lzIff lgodfjnL, @)%((Chapters I & II). *(The students will be engaged in translating the selected portions of the texts produced in Nepali into English.*
• Discuss the origin and aims of translanguaging • Introduce the various perspectives on translanguaging • Present the development of advocacy for translanguaging • Explain the models of bilingualism in connection with translanguaging	***Unit 5: Introduction to translanguaging (10 teaching hrs)*** - Beginning of translanguaging ○ Origin & aims of translanguaging - Perspectives on translanguaging ○ Translanguaging as planned activity ○ Translanguaging as natural use of two languages ○ Cummins' developmental interdependence hypothesis - Advocacy for translanguaging: Giving voice to those who do not speak ○ Overview ○ Historical background ○ Developments ○ General discussion - Bilingualism ○ Different models of bilingualism

	○ García's dynamic bilingualism - Pedagogical versus spontaneous translanguaging - Core Characteristics of Pedagogical translanguaging - Williams's translanguaging Pedagogy - Pedagogical translanguaging opposed to monolingual approaches ○ Immersion versus translanguaging ○ Content and language integrated learning versus translanguaging

4. Instructional Techniques

The instructional techniques for this course are divided into two groups: The group consisting of the general techniques applicable to the entire course, and the second group includes those applicable to the particular units as specified.

4.1 General techniques

- Lecture and discussion
- Self-study and guided study
- Pair work/group work
- Presentation

4.2 Specific techniques

Some specific techniques are suggested to ensure the active engagement of the students.

Unit I	• Teacher-initiated presentation-cum discussion • Group work and discussion • Pair work • Individual work
Unit II	• Lecture and discussion • Demonstration • Group work and pair work • Self-study and presentation
Unit III	• Teacher's presentation • Lecture • Demonstration and discussion
Unit IV	• Self reading (students) • Group work and presentation • Teacher's presentation
UNIT V	• Lecture and discussion • Group/pair work and presentation

5. Evaluation

5.1 Internal Evaluation 40%

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

1. Attendance 5 marks
2. Participation in learning activities 5 marks
3. First assessment 10 marks

4. Second assessment	10 marks
5. Third assignment	10 marks
Total	**40 Marks**

5.2 External Evaluation (Final Examination) 60%

Examination section, Office of the Dean, Faculty of Education, will conduct final examination at the end of the semester. The distribution of points for three types of questions in the exam will be as follows:

1. Objective type question (MCQ 10 x 1 point)	=	10 marks
2. Short answer questions (6 questions with 2 OR questions) x 5 points)	=	30 marks
3. Long answer questions (2 questions with 1 OR question) x 10 points)	=	20 points
Total	=	**60 points**

6. Recommended Books

Munday, Jeremy. (2016). Introducing Translation Studies: Theories and applications. Fourth Edition. London and New York: Routledge.

Campbell, Stuart and Hale, Sandra. Translation and Interpreting Assessment in the Context of Educational Measurement. In In *Translation Today Trends and Perspectives*, Edited by Anderman, Gunilla and Rogers, Margaret (2003). Clevedon: Multilingual Matters Ltd.

Neubert, Albrecht. Some of Peter Newmark's Translation Categories Revisited. In *Translation Today Trends and Perspectives*, Edited by Anderman, Gunilla and Rogers, Margaret (2003). Clevedon: Multilingual Matters Ltd.

Grossman, Edith. (2010) *Why translation matters*. New haven and London: Yale University Press.

Grossman, Edith. (2010) *Why translation matters*. New haven and London: Yale University Press.

Bhattarai, Govinda Raj. A Brief Survey of Translation in Nepali. In *History of Translation in India*. (2017) Edited by Tariq Khan & others. Mysuru: National Translation Mission, CIIL.

Hatim, Basil (2013). *Teaching and Researching Translation*. Second edition. London & New York: Routledge.

Bassnett, Susan (2002). *Translation Studies*. Third edition. London & New York: Routledge.

Beres, Anna M. (2015). An overview of translanguaging: 20 years of 'giving voice to those who do not speak'. *Translation and Translanguaging in Multilingual Contexts*, vol 1.1, pp. 103-118.

García, Ofelia and Kleyn, Tatyana (Eds). (2016). *Translanguaging with multilingual students: Learning from classroom moments*. New York & London: Routldege. Pp. 2-24.

Cenoz, Jasone and Gorter, Durk. (2021). *Pedagogical translanguaging*. Cambridge: Cambridge University Press.

Rabbidge, Michael (2019). *Translanguaging in EFL Contexts: A Call for Change*. London & New York: Routledge.

Cummins, James (1979). Linguistic Interdependence and the Educational Development of Bilingual Children. *Review of Educational Research*, Vol. 49, No. 2, Pp. 222-251.

Translated Texts

- Rimal, Gopal Prasad. 2006. *Masan* (English translation of the drama *d;fg* (trns. by Sangita Rayamajhi). Kathmandu: Ratna Pustak Bhandar (Both Nepali and English verions)
- Ghimire, Jhamaak. 2012. *A flower in the midst of thorns.* (English translation of the autobiographical essays hLjg sfF8f ls km"n by Jhamak (trans. by Nagendra Sharma & Safal Sharma). Kathmandu: Oriental Publication (Both Nepali and English verions)
- Koirala, Bishweshwar Prasad. (2013) *The colonel's horse* (English translation of the story कर्नेलको घोडा (trans. by Govinda Raj Bhattarai), in *Contemporary Short Stories of the SAARC Region*. SAARC Cultural Centre, Sri Lanka. (Both Nepali and English verions)
- Brajaki, Manu (2020). *Solitude* (translation of the story एकान्त (trans. by Tej Ratna Kansakar). *Stories from Nepal*. Kathmandu: Nepal Academy. (Both Nepali and English verions)
- Nepal Gazette. (2059.2.16 [30 May 2002]). Education Rules, 2059 (2002) (translation of lzIff lgodfjnL, @)%(). www.lawcommission.gov.np (Both Nepali and English verions)

Eng. Ed. 544: ELT Seminar and Report Writing

Course No. : Eng. Ed. 544 (Elective) Nature of the course: Theory + Practical

Credit hours: 3 (1 Th + 2 Pr) Teaching hours: 48 (16+32)

Level: M. Ed. Semester: Fourth

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1. Course Description

The intent of this course is to enhance students' knowledge and skills in developing ELT related seminar papers and their presentation. The course includes both theoretical understanding and practical experiences. It first introduces the students to the theoretical aspects of seminars by engaging them in conceptualizing seminar and seminar skills. Likewise, the course engages students in the process of identifying issues that they would like to explore. It presents some guidelines to write seminar papers, and their evaluation. In addition, the course aims to enrich students with practical skills to analyze ELT issues from multiple perspectives and present their observations in their seminar classes.

2. General Objectives

The general objectives of this course are as follows:

- To enhance students' understanding of seminars, seminar skills and procedures.
- To help them explore the ELT issues and to pose with the researchable problems.
- To acquaint them with the guidelines for writing seminar paper.
- To engage them in seminar presentations and discussion on several key ELT issues.
- To help them develop a seminar report.
- To enable them to write reflection of the seminar papers and their presentations.

3. Specific Objectives and Contents

Specific Objectives	**Contents**
• Describe seminar, seminar skills and its procedures • Discuss different forms of scientific/ academic writing	**Unit I: Seminar and Seminar Skills (4)** 1.1 Conceptualization of seminar (what and why) 1.2 Seminar and other forms of scientific/ academic writing 1.3 Seminar procedures and required skills for organizing a seminar *Task:* The subject teacher collects or asks the

	students to collect some research articles, reports/ theses, seminar papers, conference papers, synopses and asks students to read them before the class. During the class, teacher holds discussion on them with reference to the format, language, and style of writing. *Project work 1*: Write a three paragraphs essay on the contribution of seminar to professional development. *Project work 2*: Reflect on your learning and/or teaching experience. Think of a situation where faced issues or challenges while learning and/ or teaching English language. Identify one of the issues that you would like to explore for your seminar. Discuss what the issue is; also include why you think this an issue and how you plan to address it.
• Explore relevant issues for seminar and expand them into longer essays • Provide feedback in the seminar presentations • Respond to the feedback in the seminar	**Unit II: Exploring Issues and Organizing Seminar (10)** 2.1 Exploring issues for the seminars 2.2 Deciding a topic for a seminar: starting with a research problem and research questions 2.2.1 Framing a researchable problem 2.2.2 Developing critical questions for inquiry process 2.3 Developing a concept paper (problematizing the issue) 2.4 Identifying gaps pertaining to the issue under research 2.5 Selecting informants 2.6 Data collection: Methods and procedures 2.7 Analyzing data: Manually/ using software 2.8 Organizing a seminar: Preparing schedules and logistics 2.9 Preparing and presenting a seminar paper 2.10 Providing feedback in the seminar 2.11 Responding to teacher's and peer's feedback *Task*: The teacher provides the students with some research articles, mini-research

	reports/theses and seminar papers in groups. S/he asks them to find out the issues and problems in these texts of scientific writing. They will discuss and present the review of papers. *Project work 3* (seminar): Organize a small-scale seminar on any topic/issue of pertaining to Applied Linguistics, English Education or any other ELT issue, highlighting the problems. Also collect feedback from your teacher and peers. Present your reflection to the class.
• Illustrate the format of seminar paper/report • Present the guiding principles/ guidelines of constructing a seminar paper • Establish a research territory of issues for seminar paper	**Unit III: Writing Seminar Report (10)** 3.1 Components of a seminar report 3.2 Creating a research space 3.2.1 Establishing the research territory in a seminar paper: highlighting the context, signposting the purpose, finding a good research problem 3.2.2 Establishing a niche: reading literature, analyzing previous research critically, identifying the research gap, showing author's stance 3.3. Argumentation and coherence in a seminar report: using reasons/arguments and evidences, use of premises, using criticality, hedging and presenting in a coherent way 3.4 Addressing the issue: suggesting the measures to address the issues raised by the research questions 3.5 The language of a seminar report: Grammar, selection of diction, avoiding plagiarism, redundancy, vagueness and biased language 3.6 Finalizing the seminar report *Tasks*: Collect any two recently published research articles on English education and do the following tasks. - Identify the topic sentence/ thesis in the introduction section of these articles. Do they have supporting details? What are

	they? - Do the authors establish a territory in their works? How? - How do they establish the niche in these articles? What are the research gaps in these articles? - What are your own stance and arguments on their claim? *Project work 4* - Find out any five standard papers published in the last 5 years in your research area and develop a review paper synthesizing the major themes, critically reflecting on the findings of the papers. *Project work 5* - Discuss the methods and procedures: sample population, research method, tool/technique of data collection and data analysis procedure adopted in these works. *Project work* 6 - What are the major findings of these articles? How far do you agree with the conclusions drawn in these articles? Do you see any space for further research? What are they? - Provide your critical reflection on the papers and their claims.
• Explain the role of presenter, observer, fellow friends and commentator • State the ways to make effective presentation in a seminar • Describe/ use the criteria to evaluate the seminar report	**Unit IV: Presentation and Evaluation of a Seminar Report (6)** 4.1 Role of a presenter, an observer (examiner) 4.2 Role of peers and commentator 4.3 Making effective seminar presentation 4.4 Criteria to evaluate the seminar report 4.4.1 Contents and originality 4.4.2 Format and organization 4.4.3 Use of claim/argument, support and coherence 4.4.4 Language 4.4.5 Citations and references 4.4.6 Presentation (establishing the

	issue, exploring the issue, and addressing the issue) 4. 4.7 Quality of the power point slides *Project work 7* - Teacher provides some sample seminar papers and asks them to evaluate any two of them based on the criteria mentioned above. Students present their comments in a class seminar.
• Explore topics for ELT seminar • Make seminar presentations and address feedback	**Unit V: Seminar in ELT (8)** 5.1 Exploring contemporary ELT topics and issues 5.2 Identifying relevant reading resources (book/book chapters, research articles, reports) 5.3 Peer and group presentations of the readings selected or assigned 5.4 Writing the final draft and its presentation 5.5 Reflecting on feedback and comments *Project work* 8 - Students finalize their topics for the seminar and explore the issues. They present their progress in class and develop a seminar paper. Teacher provides feedback on the progress. It can be a final draft.
• Prepare a coherent and well-articulated seminar report • Use proper citation and referencing styles (APA 7th Edition)	**Unit VI: Writing and Presenting ELT Seminar Report (10)** 6.1 Familiarizing with the format of the seminar report 6.2 Preparing the report 6.3 Using appropriate language in a seminar report: word order, cohesion, use of linking device, breaking up long and clumsy sentences, removing redundancy, avoiding plagiarism 6.4 Formatting a seminar report: preliminary pages, organizing chapters and structuring paragraphs, spacing and alignment, level of headings, margin, font, size, page numbering, appendix 6.5 Citation, referencing style and edition of

	a final seminar report 6.6 Organizing a seminar and presenting final reports 6.7 Writing a reflection report about the conference ***NOTE***: • At the end, students individually prepare a final report of the seminar paper on issues they have identified and explored and present it in the seminar for external evaluation. • Likewise, at the time of external evaluation (practical), the students have to present/ submit all the project works assigned from unit I to V for final evaluation. The subject teacher needs to prepare/maintain students' portfolio on the basis of the project works, their participation, and submit it to the external examiner.

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

4. **Instructional Techniques**

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

4.1 General Instructional Techniques

Discussion

- Explanation and illustration
- Discovery and inquiry
- Self-study and small-scale research
- Group and pair works
- Read, discuss, write and share

4.2 Specific Instructional Techniques

After a couple of instructional sessions by the tutor on the theoretical aspects of seminar, seminar paper writing in general, and sessions in ELT issue and seminar in particular, students will be asked to take the lead in the course. In order to prepare for the seminar, it is important to identify the topic for the seminar. Thus, identification of a key issue in English

education/English language teaching will be the starting point for students. The teacher can also present some sample topics in class and hold discussion on the issues. The teacher can encourage the students to pick up an issue from the samples given or can explore other debatable and controversial topics so that they can explore it in greater detail and practice their higher order thinking skills.

Some Sample Topics

1) English as a medium of instruction in public schools of Nepal: Practical considerations
2) Multilingualism in English classroom
3) Social class and English language teaching
4) Information and communication technology (ICT) in English language classroom
5) Socio-cultural identity of English teachers in Nepal: How do they see themselves and how others see them?
6) Using authentic materials in ELT classrooms
7) ELT material development in the context of Nepal
8) Art-based pedagogy
9) Licensing and certification of English language teachers in Nepal
10) IELTS/TOEFL scores as the requirement to admit students in universities
11) Homework in ELT
12) Teachers feedback in ELT
13) Teacher motivation in English language teaching
14) Professional development in English language teaching
15) Literature in English language teaching

(Students are encouraged to explore new issues)

To the teachers:

Invite students to bring topics like these and discuss what and how they would like to explore in them. The topic could be either in the form of a question or a statement. Once the topic is agreed between the students and the tutor, students will explore the topic in detail and prepare a seminar paper to be presented in class. Each student will choose a topic and prepare for the seminar. Students will need regular guidance and teacher should facilitate the process by asking students to report their progress in class on a regular basis. Once the journey of exploration is clear for the students they can work on their own and prepare a seminar presentation.

The presentation schedule will be shared with the students at the beginning of the semester and the students will be required to prepare a PowerPoint presentation for the seminar based on their exploration.

The seminar will be organized in an interactive mode. There will be a commentator who will

critically review the slides of the PowerPoint presentation and share his/her observations in class after the presentation. This will be followed by a floor discussion and finally the tutor will sum up the discussion with his/her observations on the session.

Mode of the Seminar

a) Announcement of the presenters and their topics. Every class will have a Master of Ceremony (MC) who will make an announcement of the presenter and the commentator of the day.
b) Presentation by the presenter
c) Comments on the presentation by the commentator
d) Floor discussion on the issue
e) Response to the discussion by the presenter and the tutor
f) Tutor's feedback to the presenter and commentator

Students are expected to email their presentation slides to their tutor and commentator at least one day before the presentation date.

5. Evaluation

5.1 Internal Evaluation 40% (Th: 15; Pr: 25)

Internal evaluation (theory) will be conducted by respective campus via written examination for 15 full marks.

Internal evaluation (practical) will be conducted by course teacher/tutor based on following activities:

1.	Attendance	5 marks
2.	Participation in the discussion	3 marks
3.	Assignments	3 marks
4.	Quality of Power Point and contents in presentation	4 marks
5.	Seminar Presentation (presentation skills)	6 marks
6.	Comments made on the seminar paper delivered by peer/s	4 marks
	Total	**25**

5.2 External Evaluation **60% (Th: 20, Pr: 40)**

Written Examination **20**

1. Objective questions (Multiple choice 1x5) = 5

2. three short answer questions with 1 OR question x 5 = 15

20

Practical examination: 40%

For practical examination, the students have to present their seminar paper. After the presentation, the student will submit the seminar report to their external examiner. The report will then be evaluated by the tutor and an external examiner appointed by the Dean's Office. Likewise, the students have to submit the project works assigned in unit I to unit V and the tutor and the external examiner will evaluate them. The tutor has to maintain the portfolio of the students and should show it to the external examiner.

a) Accomplishment of the project works assigned in unit I to V
b) Relevance of the issue/topic to the local context
c) Depth of exploration of the issues/topic with relevant literature
d) Addressing the issue with personal tone and positionality
e) Language of the report
f) Organization of the report
g) Citation and reference

Length of the report: 8000–12000 words (excluding references and appendices)

SN	Activities/parameters	Marks
1	Accomplishment of the project works assigned in unit I to V	5
	Relevance of the issue/topic to the local context	3
	Addressing the issue/ Depth of exploration	5
	Language of the report	5
	Organization of the report	5
	Citation and reference	3
	Oral presentation	8

	Responding queries	6
	Total	40

6.Recommended Books and References

6.1. Recommended Books:

A & C Black (2005). *Give Great Presentations: How to speak confidently and you're your point*. London: A & C Black Publisher. (For unit I, unit IV)

Bailey, S. (2015). *Academic Writing: A Handbook for International Students*. London and Newyork: Routledge.(For unit I, unit III) (HARD; 4th Ed)

Booth et al. (2008). *The Craft of Research*. USA: The University of Chicago Press.(For unit III) (HARD) (Kirt)

Jolles, R. L., (2005). *How To Run Seminars And Workshops: presentation skills for consultants, trainers, and teachers*. New Jersey: John Wiley and Son, Inc. (for unit I, II, unit IV, unit V)

Meyers, A. (2014). *Longman Academic Writing Series: Essays to research papers.* Pearson Education.(unit IV)

Murray, R. and Moore, S. (2006). *The Handbook of Academic Writing*. Berkshire. Open University Press.(For unit I)

Swales, J. M. & Feak, C. B. (2011). *Academic Writing for Graduate Students*. USA: The University of Michigan.(for unit III) (Kirt)

Thody, A. (2006). *Writing and Presenting Research*. London: Sage Publications. (For unit II, Unit IV, unit VI)

Wallwork, A. (2011). *English for Writing Research Papers*. London: Springer. (For unit III)

Whitaker, A. (2009). *Academic Writing Guide: A step-by step guide to writing academic papers.* Slovakia: City University. (For unit V)

6.2. References

As the course is fully student-centered and the focus will be on the discussion of the issues, there are limited prescribed textbooks. However, in order to be familiar with the current issues at the global ELT scenario and learn about how these issues are addressed, you are expected to read some of the references so that you can enrich yourself on the nature of the issues and their exploration procedures.

Canagarajah, A. S. (2003). *Resisting Linguistic Imperialism in English Teaching*. Oxford: Oxford University Press

Carter, R. and Nunan, D. (2001). *The Cambridge Guide to Teaching English to the Speakers of Other Languages*. Cambridge: Cambridge University Press.

Crystal, D. (2002). *English as a Global Language*. Cambridge: Cambridge University Press.

Davidson, J. and Moss, J. (Eds.) (2000). *Issues in English Teaching*. London. Routledge.

Haaga, D. A. (2008). Peer Review of Term Papers in Graduate Psychology Courses. *Teaching of Psychology*, 20 (1), 28-32.

Kim, Hye-Kyung. (2010). The Identity of Asian ESL Teachers: Negotiating "white" English, *TESOL Journal*, 7(1), 69-84.

Nikolov, M. (2002). *Issues in English Language Education*. Bern. Peter Lang AG, European Academic Publishers.

Spendlove, D. (2011). *Putting Assessment for Learning into Practice.* London.

Spolsky, B. & Sung, K. (2015). *Secondary School English Education in Asia*. London. Routledge.

Geo. Ed. 546: Environmental Geography

Course No: Geo. Ed. 546 (Elective)	Nature of course: Theoretical
Level: M. Ed.	Credit hours: 3
Semester: Fourth	Teaching hours: 48

1. Course Description

This course is designed to provide the students with the advanced knowledge of teaching environmental geography. It deals with the fundamental concepts of environmental geography, man and environment, environmental pollution, natural disaster and environmental degradation, global environmental issues and environmental management and sustainable development.

2. General objectives

The general objectives of this course are to

- describe the nature, scope and importance of environmental geography,
- impart knowledge about man and environment relationships,
- familiarize the students with global environmental issues,
- introduce the students with natural disaster and environmental degradation,
- acquaint the students with international, national and local level issues on environment and controlling measures, and
- make them able to analyze the ways of environmental management and sustainable development

3. Specific Objectives and Contents

Specific objectives	Contents
• Introduce environmental geography, its nature and scope • Explain the origin and evolution of environmental geography • Describe the approaches to environmental geography • Analyze relationship of environmental geography with other disciplines	**Unit I: Introduction to Environmental Geography** (4) 1.1 Meaning, nature and scope 1.2 Origin and evolution 1.3 Approaches 1.4 Relationship of environmental geography with other disciplines

• Explain the types of environment • Identify the factors of natural and cultural environments • Analyze the relationships between man and environment • Evaluate the human life in different environmental regions • Interpret the meaning of ecology • Infer the meaning, types, components and energy flow of ecosystem	**UnitII**:**Man and Environment** (**8)** 2.1 Types of environment 2.2 Factors of natural and cultural environments 2.3 Man- environment relationship: Determinism, Possibilism and Neodeterminism 2.4 Human life in different environment: Equatorial region, Hot desert region and Cold desert region 2.5 Ecology 2.6 Ecosystem: meaning, types, components and energy flow
• Describe the causes, effects and controlling measures of different environmental pollution	**Unit III: Environmental Pollution: Causes, Effects and Controlling Measures** **(8)** 3.1 Air Pollution 3.2 Water Pollution 3.3 Sound Pollution 3.4 Land Pollution 3.5 Radiation Pollution 3.6 Socio-cultural Pollution
• Identify the causes, effects and controlling measures of environmental degradation • Discuss the disaster management cycle and its practices in Nepal • Introduce the disaster management cycle and its practices in Nepal • Categorize the various types of natural and man-made hazards and explain the causes, effects and controlling measures of them	**Unit IV: Natural Disaster and Environmental Degradation** **(12)** 4.1 Environmental degradation 4.1.1 Deforestation: causes, effects and controlling measures 4.1.2 Desertification: causes, effects and controlling measures 4.1.3 Chemicalization: causes, effects and controlling measures 4.2 Disaster management practices 4.3 Causes, effects and controlling measures: Landslide, Flood, Soil Erosion, Glacial Lake Outburst, Earthquake, Volcanoes, Drought Atmospheric Hazard, Extra Planetary/Extra Terrestrial Hazard and Man-made hazards
• Identify the major environmental issues • Explain the causes and effects of ozone layer depletion • Discuss global warming and its impact	**Unit V: Global Environmental Issues (7)** 5.1 Major environmental issues of the world 5.2 Ozone Layer Depletion 5.3 Global Warming 5.4 Green House Effect 5.5 Acid Rain 5.6 Carbon Trading

on man and environment • Analyze the green-house effect and its impact on environment • Identify adverse effects of acid rainfall • Describe the causes and effects of carbon trading • Analyze the loss of biodiversity and endangered species • Discuss climate change and its impacts on people's livelihood	5.7 Loss of biodiversity and endangered species 5.8 Climate Change
• Introduce environmental management and sustainable development • Identify the causes of soil and forest degradation and measures for conservation • Discuss the ways of conserving biodiversity • Illustrate the ways of watershed management • Assess drinking water crisis in urban areas and ways for its solution • Examine the role of GOs, NGOs and INGOs in sustainable development and environmental management • Review of case study about the environmental issue of Nepal.	**Unit VI: Environmental Management and Sustainable Development in Nepal (9)** 6.1 Concept of Environmental management and sustainable development 6.2 Soil and forest degradation and their conservation 6.3 Conservation of biodiversity 6.4 Watershed management 6.5 Crisis of drinking water and its management 6.6 Role of GOs, NGOs and INGOs in sustainable development and environmental management 6.7 Case study regarding the environmental issues in Nepal

Note: *The figures within the parenthesis indicate the approximate teaching hours*

4. Instructional Techniques

Two types of instructional techniques have been recommended. The first group comprises general instructional techniques applicable to most of the units. The second group includes instructional techniques to be applied to each of the specific units.

4.1 General Instructional Techniques

Varieties of techniques/methods can be applied for this course. The main techniques/ methods applicable to this course include lecture, discussion, question answer, student interaction, observation, class assignment and presentation.

4.2 Specific Instructional Techniques

Unit	Activities and instructional techniques
I	Share the knowledge through lecture, discussion, question-answer and student interaction
II	Discussion on concept, types, factors and man environment relationship. Use of charts to show the ecosystem.

III	Discuss and discover the causes , effects and controlling measures of different environmental pollution
IV	Presentation of typology of **enviromental hazards and risk based on reports and books.** Assignment to students to prepare a report on hazard management.
V	Review of global issues on environmental status from published reports and materials available.
VI	*Present the status of* degradation and practices for their conservation with a view of sustainable development. Present the role of GOs, NGOs and INGOs on environmental management. Assignment to students to prepare a review report based on case studies on environmental issues.

5. Evaluation

The achievement of the students will be assessed through internal and final/semester examination. Forty percent marks are allocated to internal examination and sixty percent for final/semester examination.

5.1 Internal Evaluation

Forty percent marks are allotted to internal evaluation. Internal evaluation will be conducted by course teacher based on the following activities:

Activities	**Marks allotted**
Attendance	5
Classroom activities	5
First assignment	10
Second assignment	10
Third assignment	10
Total	***40***

5.2 External Evaluation (Final Examination)

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester. Sixty percent of the marks are allotted to the final examination. The number and types of questions in the final examination will be as follows:

Types of questions	**Total questions to be asked**	**Number of questions to be answered and marks allotted**	**Total marks**
Group A: Multiple choice	10 questions	10 x 1 marks	10
Group B: Short answer	6 with 2 'or' questions	6 x 5 marks	30
Group C: Long answer	2 with 1 'or' question	2 x 10 marks	20
Total			***60***

6. Recommended Books and Reference Materials

6.1 Recommended Books

Allan, N. J. R. (1995). *Mountains at risk: Current issues in environmental studies*. New Delhi: Manohar. (Unit I, II, & III)

Anderson J.M. (1981). Ecology for environmental science: Biosphere, ecosystems and man, London: Arnold. Unit I & II).

Gupta, A. D. & Kapoor, A. N. (2004). *Principles of physical geography.* New Delhi: S. Chand and Company Ltd. (Unit II & III).

International Federation of Red Cross and Red Crescent Societies, (2010). *World disaster report (Focus on urban risk)*. International Federation of Red Cross and Red Crescent Societies, ISBN 978-92-9139-156-1. (Unit I, II & III).

Poudel, K.P. (2003). *Watershed management in the Himalayas: A resource analysis approach*. New Delhi: Adroit Publishers. (Unit II & IV).

Paudyal, N.P. (2072 BS). *Environment geography.* Kathmandu: Shofist Publication. (Unit I, II, III, IV & V).

Singh, S. N. (1993). *Elements of environmental geography and ecology.* Varanasi: Tara Book Agency. (Unit I, II, III, & V).

Singh, S. (1991).*Environmental geography,* Allahabad: Prayag Pustak Bbhavan. (Unit I, II, III, & V)

Uprety, B. K. (2003). *Environmental impact assessment: Process and practice*. Kathmandu: Mrs. Uttara Uprety. (Unit VI).

6.2 Reference Materials

Awasthi, N.M. & Tiwari, R.P.L. (1995), *Paryavaran bhugool* (Environmental Geography). Bhopal: Madhya Pradesh Hindi Granth Academy.

Goudie, A. (1984), *The nature of the environment*, Oxford Katerpring Co. Ltd.

Huggett, R. J. (2007). *Fundamentals of geomorphology* (Second Ed.). New York: Taylor and Francis Group.

Dhital, M. R. (2015). *Geology of the Nepal Himalaya: Regional perspective of the classic collided orogen*, Switzerland: Springer International Publishers.

Odum, E.P. (1971). *Fundamental of ecology*. Philadelphia: W.B. Sanders.

Saxena, H.M. (1994). *Prayavaranevn Paristhitiki Bhugool* (Geography of Environment and Ecology). Jaipur: Rajasthan Hindi Granth Academy.

Shakya, A. M. (1994). *Bhautik bhoogol.* Kathmandu: Curriculum Development Centre, T.U.

Singh, R.B. (ed.) (1989). *Environmental geography*. New Delhi: Heritage.

Strahler, A.H. & Strahler A.N. (1977). *Geography and man's environment, between natural systems and man.* New York: John Wiley and Sons.

UNDRR, (2015). *Sendai framework for disaster risk reduction 2015-2030*. United Nations: United Nations Office for Disaster Risk Reduction.

Walter, E. W. (1985). *Ecology, impact assessment and environmental planning*. John Wiley & Sons.

Geo. Ed. 547: Agricultural Geography

Subject code: Geo. Ed. 547 (Elective) Nature of course: Theoretical

Level: M. Ed. Credit hours: 3

Semester: Fourth Teaching hours: 48

1. Course Description

This course is designed to provide the essential knowledge of agricultural geography to the student. It deals with the theoretical aspects of agricultural geography, systems of agriculture, and determinants of agricultural activities. In addition, it aims to develop ideas about selected models and innovations in agriculture, and methods and techniques of measurement applied in agricultural geography.

2. General Objectives

The general objectives of this course are to

- familiarize the meaning and concept of agricultural geography and explain its origin and evolution,
- acquaint the students with the knowledge of various approaches and systems of agricultural geography,
- recognize the relationship between physical environments, culture and political economy in the historic development of agriculture systems,
- enable the students to identify the determinants of agricultural systems,
- explain the models of agricultural location and new innovations in agriculture,
- develop skills to use techniques and tools of measurement in agriculture, soil profile and soil composition,
- enable the students to identify the changing pattern of agriculture with reference to Nepal, and
- investigate the current issues related to food and agricultural production.

3. Specific Objectives and Contents

Specific objectives	Contents
• Explain the concept and evolution of agricultural geography • Discuss the nature and scope of agricultural geography. • Describe the approaches of agricultural geography • Identify recent trends in agricultural geography	**Unit I: Introduction to Agricultural Geography (6)** 1.1 Concept and evolution 1.2 Nature and scope 1.3 Approaches 1.4 Recent trends and practices
• Identify the natural/physical determinants of agriculture • Analyze the socio-economic and	**Unit II: Determinants of Agriculture (8)** 2.1 Natural/Physical determinants: Terrain, Climate, Soil and Water. 2.2 Socioeconomic determinants: Demography,

cultural, determinants of agriculture • Discuss the technological components of agricultural system • Analyze the relationship between markets and agricultural production systems	Culture &tradition, Infrastructure & Services, Institutions and Policies 2.3 Technological knowhow 2.4 Market
• Identify the criteria of agriculture classification • Examine the Whittlesey's classification of world agriculture systems • Analyze the locations and characteristics of farming systems of the world	**Unit III: Agricultural Systems of the World (10)** 3.1 Bases for classification of agriculture 3.2 Whittlesey's world agriculture classification 3.3 Major farming systems • Primitive gathering, slash and burn farming • Intensive subsistence farming • Commercial farming: food and cash crops • Livestock farming • Agro-forestry • Eco-farming
• Discuss the importance of models to the study of agricultural geography • Describe the agricultural location models proposed by Von Thunen and T. Haggerstrand • Analyze the new innovations in agriculture	**Unit IV: Models and Innovations in Agriculture (6)** 4.1 Importance of models in agriculture 4.2 Agricultural location models • Von Thunen • T. Haggerstrand 4.3 New innovations in agriculture • Green revolution • Sustainable agriculture • Genetically modified organism (GMO)
• Assess the agricultural systems in Nepal • Explain the indigenous farming systems in Nepal • Describe the importance of organic farming • Analyze the status of commercial farming • Analyze the status of agricultural practices and food security in Nepal • Examine the production, marketing and consumption systems of rice, tea and off-season vegetables • Assess the agricultural policies of	**Unit V: Pattern of Agriculture in Nepal (12)** 5.1 Agricultural systems in Nepal 5.2 Indigenous knowledge in farming systems 5.3 Organic farming 5.4 Commercial farming 5.5 Agricultural practices and food security 5.6 Production, consumption and marketing systems of selected crops 5.7 Agriculture policies: Common agricultural policy (CAP, 2008), Agricultural perspective plan (APP, 1995-2015), National agricultural policy (NAP, 2004), Agricultural development strategy (ADS, 2014), Agriculture Insurance 2018, and Livestock Insurance 2014. 5.8 Climate change and Nepalese agriculture

Nepal • Evaluate the impact of climate change on agriculture	
• Measure soil profile and composition • Explain the crop intensity, crop combination, crop diversification, carrying capacity, and densities • Prepare a report collecting vegetable marketing data of assigned area	**Unit VI: Measurement Techniques (6)** 6.1 Soil profile and composition 6.2 Crop intensity, combination, diversification, carrying capacity, and densities 6.3 Study of fresh vegetables production and supply system

Note: *The figures within the parenthesis indicate the approximate teaching hours.*

4. Instructional Techniques

Two types of instructional techniques have been used. The first group comprises general instructional techniques applicable to most of the units. The second group includes instructional techniques to be applied to each of the specific units.

4.1 General Instructional Techniques

Varieties of techniques/methods can be applied for this course. The main techniques/ methods applicable to this course include lecture, discussion, question-answer, student interaction, observation, class assignment and presentation.

4.2 Specific Instructional Techniques

Unit	Activities and instructional techniques
I	Explain meaning, definition and nature and scope of agricultural geography. Discuss on various approaches to agricultural geography including its recent trends using charts.
II	Describe the determinants of agriculture using charts. The students' experience will also be shared.
III	Whittlesey's classification of agriculture will be presented and major farming systems of the world will be discussed
IV	Models of Von Thunen and T. Haggerstrand in agricultural location and new innovations will be discussed through the demonstration of figures and charts.
V	Agricultural pattern of Nepal will be discussed highlighting some case studies.
VI	Selected techniques of measurement in agriculture will be explained. Presentation of students on their study on vegetable marketing system of assigned area.

5. Evaluation

The achievement of the students will be assessed through internal and final/semester examination. Forty percent marks are allocated to internal examination and sixty percent for final/semester examination.

5.1 Internal Evaluation

Forty percent marks are allotted to internal evaluation. Internal evaluation will be conducted by course teacher based on the following activities:

Activities	**Marks allotted**
Attendance	5
Classroom activities	5
First assignment	10
Second assignment	10
Third assignment	10
Total	***40***

5.2 External Evaluation (Final Examination)

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester. Sixty percent of the marks are allotted to the final examination. The number and types of questions in the final examination will be as follows:

Types of questions	**Total questions to be asked**	**Number of questions to be answered and marks allotted**	**Total marks**
Group A: Multiple choice	10 questions	10 x 1 marks	10
Group B: Short answer	6 with 2 'or' questions	6 x 5 marks	30
Group C: Long answer	2 with 1 'or' question	2 x 10 marks	20
Total			***60***

6. Recommended Books and Reference Materials

6.1 Recommended Books

Grig, D . (2008). *An introduction to agriculture:* London: Oxford publication. (Unit I)

Singh, J. & Dhillon, S. S. (2000). *Agricultural geography*. New Delhi: Tata McGraw- Hill Publishing Company. (Unit I, II, III, IV & VI)

Hussain, M. (1979). *Agricultural geography.* New Delhi: Inter-India Publication. (Unit I & II)

Morgan, W. B. & Munton, R. J. C. (1971). *Agricultural geography*, London: Methun. (Unit I)

Macoyer, M. & Laurence R .(2006). *A history of world agriculture: From the Neolithic to the current crisis*. New York: Monthly Review Press. (Unit III)

Symon, L. (1964). *Agricultural geography*, London: G. Bill and Sons. (Unit I)

6.2 Reference Materials

Frank, van T. (2009). *What future for agriculture and food in an increasingly globalized world: Highlights from a recent symposium*. (Ppt file accessed on the 6th May 2016.)

Shailaja F, (2016). *Agricultural innovation and rural diversification*. Cambridge: Central Asia Forum. (Ppt file accessed on the 6th May 2016.)

Brush, S. & Turner, B. L. (Eds.) (1987). *The natural of farming systems and views of their changes, in comparative farming systems*. New York: Guilford.

Galt, R. (2014). *Food system in an unequal world: pesticides, vegetables an agrarian capitalism in Costa Rica*.

Pokhrel, K.P. (2011). *Culture, climatic change and food security in Nepal: An ecological approach*. Kathmandu: GCP Pvt. Ltd.

Nile, D. & Roff, R. J. (2008). *Shifting agri-food system: The contemporary geography of food and agriculture; an introduction*. Geo Journal.

Geo. Ed. 548: Settlement Geography

Subject Code: Geo. Ed. 548 (Elctive) Nature of course: Theoretical

Level: M. Ed. Credit hours: 3

Semester: Fourth Teaching hours: 48

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1. Course Description

This course is designed to provide the students with the knowledge of settlement geography. It deals with the concepts of settlement geography and classification of settlement. It enables the students in dealing and analyzing with morphological and functional characteristics of both rural and urban settlements. And it also identifies problems or issues related to rural and urban settlements and develop the skills for settlement planning and mapping.

2. General Objectives

The general objectives of this course are to

- impart knowledge about the nature, scope and approaches of settlement geography,
- identify the basis for the classification of settlement,
- assess the theories on the hierarchy of settlements,
- enable the students in dealing and analyzing morphological and functional characteristics of rural and urban settlements,
- enable the students to explain the trends and pattern of urbanization, and
- familiarize the students with the major issues in rural and urban settlement.

3. Specific Objectives and Contents

Specific objectives	Contents
• Describe the meaning and definition of settlement geography • Elucidate the nature and scope of settlement geography • Discuss on the development focus of the settlement geography • Trace out the development of permanent human settlement	**Unit I: Settlement Geography (4)** 1.1 Meaning and definition 1.2 Nature and scope 1.3 Approaches 1.4 Development focus of Settlement Geography 1.5 Development of human settlement
• Differentiate the types of rural settlements • Classify human settlements on the basis of population size, function and forms • Identify the settlement hierarchies • Illustrate the theories of settlement in relation to the hierarchical structures proposed by Christaller and Losch	**Unit II: Settlement Classification and Hierarchies (6)** 2.1 Types of settlement • Classification by population size • Classification by functions • Classification by form 2.2 Settlement hierarchies • Rank-size rule • Law of primate city 2.3 Christaller & Losch theories on hierarchic distribution

• Describe dichotomy between rural and urban settlement • Explain the historical development, factors of location and types of rural settlements • Identify the morphological characteristics of rural settlement • Identify the pattern of settlement distribution • Describe the characteristics of rural house types • Trace out the history of urban growth • Analyze location and pattern of urban settlement • Elucidate the fields of urban settlement • Compare and contrast the concentric zone, sector and multiple nuclei modes of urban structure. • Explain the characteristics of rural-urban fringe • Describe techniques identifying urban primacy • Classify towns on the basis of urban function	**Unit III: Rural and Urban Settlement (12)** 3.1 Urban-rural dictum 3.2 Rural Settlement 3.2.1 Historical development 3.2.2 Settlement location 3.2.3 Types (forms) and pattern of settlement 3.2.4 Morphological characteristics 3.2.5 Distribution pattern 3.2.6 Rural house types 3.3 Urban Settlement 3.3.1 History of urban growth/evolution 3.3.2 Urban location and pattern 3.3.3 Distribution and hierarchies 3.3.4 Urban fields 3.3.5 Urban structure: Theories • Concentric zone • Sector and • Multiple nuclei model 3.3.6 Rural-urban fringe 3.3.7 Urban primacy 3.3.8 Urban function
• Describe concept and meaning of urbanization • Elucidate the world urbanization trends • Analyze urbanization trends, present status of urban network, hierarchy and pattern of urbanization in Nepal • Explain urban network, urban system, urban function, morphology and demographic characteristics of urban centers • Identify the land use and rural-urban linkages of the urban centers	**Unit IV: Urbanization Trends and Pattern (14)** 4.1 Introduction of urbanization 4.2 World urbanization trends 4.3 Urbanization in Nepal • Definition of urban places • Urbanization trend • Urban network • Primacy, Centrality and Rank-size • Hierarchy • Urban system and function • Locational arrangement/pattern • Demographic characteristics • Morphology • Land use • Rural-urban linkage
• Analyze the issues/problems of rural and urban settlements • Describe the concept of settlement planning • Trace out the rural and urban planning practices with reference to Nepal • Develop skills for mapping settlement using GIS,RS and GPS	**Unit V: Settlement Planning and Mapping (12)** 5.1 Issues/Problems of settlement: Rural and urban 5.2 Settlement planning 5.3 Settlement planning initiation in Nepal • Small towns development program • Compact rural settlement development

• Prepare a map of a local settlement	• Urban development strategy 5.4 Settlement mapping (Using GIS, RS and GPS) 5.5 Mapping of a local settlement

Note: The figures in the parentheses indicate the approximate periods.

4. Instructional Techniques

Two types of instructional techniques have been recommended. The first group comprises general instructional techniques applicable to most of the units. The second group includes instructional techniques to be applied to each of the specific units.

4.1 General Instructional Techniques

Varieties of techniques/methods can be applied for this course. The general techniques/ methods applicable to this course include lecture, question answer, discussion, observation, class assignment and presentation.

4.2 Specific Instructional Techniques

Unit	Activities and instructional techniques
I	Introductory concepts of the settlement geography through discussion and presentation.
II	Discussion on the origin, evolution and patterns of settlements in relation to their functions using Power-point presentation.
III	Providing theoretical concepts settlements regarding their hierarchical structures and rank size with illustrations and discussion.
IV	Preparation of graphs on deal with emerging trends in world urbanization. Presentation on the urban land use models. Calculation different indices related to urbanization.
V	Discussion on the importance of planning to address issues of rural and urban settlements. Project work on settlement mapping using GIS, RS and GPS.

5. Evaluation

The achievement of the students will be assessed through internal and final/semester examination. Forty percent marks will be allotted to internal examination and sixty percent for final/semester examination.

5.2 Internal Evaluation

Forty percent marks are allotted to internal evaluation. Internal evaluation will be conducted by course teacher based on the following activities:

Activities	Marks allotted
Attendance	5
Classroom activities	5
First assignment	10
Second assignment	10
Third assignment	10
Total	***40***

5.2 External Evaluation (Final Examination)

Examination Division, office of the Dean, Faculty of Education will conduct final examination at the end of semester. Sixty percent of the marks are allotted to the final examination. The number and types of questions in the final examination will be as follows:

Types of questions	Total questions to be asked	Number of questions to be answered and marks allotted	Total marks
Group A: Multiple choice	10 questions	10 x 1 marks	10
Group B: Short answer	6 with 2 'or' questions	6 x 5 marks	30
Group C: Long answer	2 with 1 'or' question	2 x 10 marks	20
Total			***60***

6. Recommended Books and Reference Materials

6.1 Recommended Books

Bajracharya, B. N. (2015). Promoting small towns for rural development: A view from Nepal. *Asia-Pacific Population Journal*, 10 (2), pp 27-50 (Unit V).

Bowen, W.M & Gleeson, R. E. (2019). *The evolution of human settlement*: From Pleistocene origins to Anthropocene prospects. eBook by Palgrave Macmillan Retrieved from https:// doi.org/10.1007/978-3-319-95034-1_4 (Unit I)

Chisolm, M. (1966). *Rural settlement and land use*. London: Hutchinson and Co. (Unit I, II,III, & IV)

Faraji, S. J.; Quingping, Z.; Valinoori, S. & Komijani, M. (2016). Urban primacy in urban system of developing countries; its causes and consequences. In *Human* 6(1), pp 34-44 (Unit III).

GoN. (2015). *National urban development strategy 2015*. Kathmandu: Ministry of Urban Development (Unit V)

Government of Nepal (GoN). (2013). *Compact rural settlement development strategy for Nepal: A policy brief*. Kathmandu: National Planning Commission (Unit V)

Hammond, C. W. (1985). *Elements of human geography*. London: George Allen. (Unit I II, III, & IV)

Hudson, F. S. (1981). *Geography of settlements*. New York: MacDonald and Evans. (Unit I, II, III, IV & V)

Jnawali, D. (2004). *Rural urban interaction: A geographical perspective*. Kathmandu: Student's Books. (Unit III)

Knowled, R. & Wareing, J. (1996). Economic and social geography. Delhi: Rupa & Co (Unit V)

Li, M.; Vliet, J van; Ke, X & Verburg, P.H. (2019). Mapping settlement systems in China and their change trajectories between 1990 and 2010. *Habitat International* 94 (1-10), http://www.elsevier.com/locate/habitatint (Unit V).

Pradhan P. (2003). *Rural urban linkage*. Kathmandu: RUPP/UNDP Nepal. (Unit III & V)

Rinkesh (nd). Major global urban problems..., https://www.conserve-energy-future.com/urbanization-problems.php (Unit I)

Shrestha, C. B.; Rijal, S. P. & Chidi, C. L (2018). *Settlement geography of Nepal*. Kathmandu: KEC Publication Pvt. Ltd.(Unit IV)

Subedi, B. P. (2014). Urbanization in Nepal: Spatial pattern, social demography and development, In CBS (ed.) *Population Monograph of Nepal Vol. III (Economic Demography),* Kathmandu: CBS (Unit IV)

United Nations. (2015). *World urbanization prospectus: The 2014 revision*. New York: UN (Unit IV).

Stone, K. H. (1965). The development focus of the geography of settlement, *Economic Geography*, 41(4), 346-355. Retrieved from http://www.jstor.org/stable/141945 (Unit I)

6.2 Reference Materials

Herfort, B.; Li, H.; Fendrich, S. Lautenbach, S & Zipf, A. (2019). Mapping human settlements with higher accuracy and less volunteer efforts by combining crowdsourcing and deep learning, Remote Sensing, 11, 1-21. Retrieved from www.mdpi.com/journal/ remotesensing

https://rashidfaridi.com/2018/11/20/classification-of-cities-by-chauncy-d-harris/

https://rashidfaridi.com/2018/11/20/howard-nelsons-classification-of-cities/

Khaniya. P.R (2059). *Af:tL e"uf]n* (Settlement geography). Kathmandu: Vidhyarthi PustakBhandar.

Poudel, K. P. (2011). :yfgLo ljsf;df ef}uf]lns ;"rgf k|0ffnL (Geographic Information Systems in Local Development) Kathmandu: Nepal GIS Society.

Shrestha, C. B. (2016). *Nepal: Cultural geography*. Kathmandu: Prakash Shrestah and Sunil Shrestha.

Singh, R. L. & Kashi, N. S. (Eds.). (1975). *Readings in rural settlements geography*. Varanasi: Banaras Hindu University. (Unit III)

Singh, U. (1982). *Urban geography*. Gorakhpur: Basundhara Prakashan.

Tatem, A. J.; Noor, A.M. & Hay, S. I. (2004). Defining approaches to settlement mapping for public health management in Kenya using medium spatial resolution Satellite Imagery, Remote Sensing of Environment, 93, 42-52. Retrieved from https://www.elseiver.com/locate/rse

Yadav, J. P. & Suresh, R. (1984). *Rural settlement geography*. Kanpur: Kitabghar.

H. Ed. 546: Health Psychology

Course No: H.Ed. 546 (Elective) | Nature of course: Theoretical
Level: M.Ed. | Credit hour: 3
Semester: Fourth | Teaching hours: 48

1. Course Description

This course is designed to introduce the basic concepts of health psychology. It deals with the psychological basis of health, bio-psychosocial models and approaches to health, health-risk behaviour, illness perceptions and illness behaviour, health-enhancing behaviour, guidance and counselling, and improving quality of life. The course helps the students better understand various approaches to health psychology to apply concepts and approaches of health psychology in health education and promotion programmes.

2. General Objectives

The general objectives of the course are as follows:

- To introduce concepts, scope and history of health psychology.
- To familiarize the students with biopsychosocial approaches to health, such as homeostasis, psychoneuroimmunology, stress, illness and social support
- To develop students' broader understanding of health-risk and health-enhancing behaviour
- To provide basic understanding of the mechanism of symptoms, perceptions and treatment-seeking behaviour of lay people
- To enable the students to apply skill of health counselling and to help people explore ways of improving quality of life

3. Specific Objectives and Contents

Specific Objectives	Contents
• Describe the concept need and importance of health psychology. • Discuss history and scope of health psychology • Explain body-mind relationship as psychological basis of health.	**Unit 1: Introduction to Health Psychology (8)** 1.1 Concept of health psychology 1.2 History of health psychology 1.3 Scope of health psychology 1.4 Need and importance of health psychology 1.5 Psychological basis of health: Body-mind relationship
• Explain link between the brain homeostasis and health • Clarify the concept of psychoneuroimmunology in terms of nervous, endocrine and immune system, and diseases • Explain relation between stress, anxiety and depression health and illness. • Analyse personality, stress and illness link • Explain coping with stress anxiety and depression	**Unit 2: Bio-psychosocial Approaches to Health (10)** 2.1 Maintaining brain homeostasis and health 2.2 Psycho- neuro-immunology nervous, endocrine and immune system and health 2.3 Stress, health and illness 2.3.1 Concept and types of stress anxiety and depression. 2.3.2 Stress as physiological response 2.3.3 Stress, personality and illness 2.3.4 Stress and illness link 2.3.5 Coping with stress anxiety and

• Prevention of stress, anxiety and depression. • Identify procedures of stress management training and apply technique of stress management in daily life. • Discuss roles of social support emotional intelligence, mindfulness/ meditation and resilience in stress and illness	depression 2.3.6 Prevention of stress anxiety and depression. 2.3.7 2.3.8 Stress management training 2.4 Social support in stress anxiety and depression. 2.5 Psychology of social support, emotional intelligence, mindfulness/ meditation and resilience.
• Clarity the concept of health habit and health-risk behavior. • Illustrate concept and model of drug use and dependence • Analyze the psychology of smoking and alcohol use • Explain treatment strategy of alcohol and nicotine dependence • Analyze cause and effects of unprotected sexual behaviour • Discuss healthy diet, nutrition related behaviour • Discuss healthy eating, exercise and physical activity as health enhancing behaviour • Identify and describe determinants of nutrition behaviour • Explain importance of physical activity related behaviours • Discuss importance of good hygiene behaviours, and understanding health risk behaviopurs. • Describe strategies for changing health risk behavior.	**Unit 3: Health-Risk and Health Enhancing Behaviour (10)** 3.1 Health Habit and Health Risk Behaviour 3.1.1 Concept of healthy and risky health habit 3.1.2 Unhealthy diet, over and under eating disorder/dieting 3.1.3. Health risk behavior of school children and its relation with health psychology. (smoking, alcohol substance use premature and unprotected sexual behavior) 3.2 Health enhancing behaviour 3.2.1 Healthy diet and nutrition related behavior 3.2.2 Exercise and physical activity related behaviour 3.2.3 Good hygiene behaviour 3.2.4 Strategies for changing health risk behavior(cognitive, behavioral, motivational emotional approaches)
• Discuss concept of sickness and illness behaviour • Explain how people perceive and analyze symptoms during illness • Describe individual planning and taking action to symptoms and illness • Analyze treatment seeking behaviour and health service utilization. • Explain communication between patient and doctor/service during medical consultation and treatment • Explore impacts of illness on patients and their families	**Unit 4: Illness, Symptom, Perceptions, Interpretation and Responses (10)** 4.1 Concept of sickness and illness behaviour 4.2 Meaning of symptoms perceptions and interpretation 4.3 Planning and taking action to symptoms and illness 4.4 Treatment-seeking behaviour and using health services 4.5 Medical consultation and communication: patient, doctors/service provider and treatment 4.6 Impact of illness on patients and their

	families
• Discus concept of Guidance and counseling • Describe scope and need of guidance and counselling. • Illustrate approach and steps of guidance and counseling(Individual, group, mass • Explain Need based guidance and counseling. • Differentiate between guidance and counselling.	**Unit** 5 Guidance and counselling for promoting healthy behavior. 8 5.1Concept of guidance and counseling, and health counselling. 5.2. Scope and need of guidance and counselling in health education 5.3 Approach and steps of guidance and counselling(Individual, group, mass) 5.4 Need based guidance and health counseling in school setting

4. Techniques

The instructional techniques for this course are divided into two groups. The first group comprises general instructional techniques applicable to most units and sub-units. At the same time, the second group consists of proposed specific instructional techniques applicable to specific units and topics.

4.1 General Instructional Techniques

- Lecture
- Presentation
- Question-answer
- Discussion
- Brain Storming

4.2 Specific Instructional Techniques

The following techniques will be used for active participation of students in learning process

Unit	Activities and instructional techniques
1	Students will be divided into groups and they will be given assignments on three themes: Scope of health psychology, body and mind relationship and historical evolution of health psychology. Each group will prepare and present their assignments in the class. After the presentation, teacher will clarify concepts and provide feedbacks
2	Discussion- will take in the on the topic stress anxiety and depression management in the class., there will also be question-answer among students and teacher.
3	Students will be divided into groups and assigned to prepare a paper related to different areas of health risk and health enhancing behavior studying different literatures. Then they will present their paper with power point presentation with discussion. The teacher will provide the feedback.

4	Guest lecture will be organized inviting experts from medical field and based on the lecture students will participate in question answer regarding the illness symptoms perception and interpretation.
5	Role play method –Firs teacher will explain and demonstrate about the process of guidance and counselling. After demonstration, selected students will play the role of counsellor and counselee.

5. Evaluation

5.1 Internal Evaluation 40%

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

- Attendance 5 marks
- Participation in learning activities 5 marks
- Fist assignments: Review 10 marks
- Second assignment: Mid-term exam 10 marks
- Third assignment: Write term paper 10 marks

Total 40 marks

5.2 External Examination (Final Examination) 60%

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

SN	Types of question	Marks
1	Objective type question(multiple choice 10 x 1 mark)	10
2	Short answer questions (6 questions x 5 marks with 2 OR questions)	30
3	Long answer questions (2 questions x 10 marks with 1 OR question))	20
Total		**60**

6. Recommended Books and References

6.1 Recommended Books

Allen, F. (2010). *Health psychology and behaviour*. New Delhi: Tata McGraw Hill Education Private Limited. (For unit I, IV and VI)

Dhimal M, Bista B, Bhattarai S, Dixit LP, Hyder MKA, Agrawal N, Rani M, Jha AK. 2020. *Report of Non-Communicable Disease Risk Factors: STEPS Survey Nepal 2019.* Kathmandu: Nepal Health Research Council

Friedman, H.S., and Silver, R.C. (Eds.) (2007). *Foundations of health psychology*. Oxford: Oxford University Press. (For unit II)

Morrison, V. and Bennett, P. (2009). *Introduction to health psychology*. London: Pearson Prentice Hall. (For unit II, IV, V and VI)

Neeraja, K.P. (2008). *Essential of mental health and psychiatric nursing* (Volume I). New Delhi: Jaypee Brothers Medical Publishers

Ogden .J (2012) Health psychology, M.C Graw hill Foundation

Oxford J, (2008) Community psychology challenges, controversies and Emerging consensus John Wiley and Sons Ltd.

Taylor, S.E. (2012). *Health psychology* (9th ed.). New York: McGraw Hill Education. (For unit I, IV and VI).

WHO (2023), How school systems can improve health and well-being, Health Promotion Department

6.2 References

Baer, R. A. (2003). Mindfulness training as a clinical intervention: a conceptual and empirical review. Clinical Psychology: *Science and Practice*, (10)2, 125

Cohen, S. (2004). Social relationships and health. *American Psychologist*, 59, 676–684

Kapur, M. (2011). *Counseling children with psychological problems*. New Delhi: Pearson Education

Park, K. (2012). *Park's Textbook of Preventive and Social Medicine.* Jabalpur, India: M/S Banarsidas Bhanot

Bannon. L,Mc Neese, J.F & Updegralf (2014)health psychology in introduction to behavior and Health(8th Ed) Delhi Cen gage learning.

Lyons'A. C and Chamberlain, K. (2006)Health Psychology a Critical Introduction, Cambridge University press

H. Ed. 547: Physical Exercise and Sports for Health Promotion

Course No.: H. Ed. 547 (Elective) Nature of course: Theoretical and Practical
Level: M.Ed. Credit hour: 3 (2 Th. and 1 Pr.)
Semester: Fourth Teaching hour: 32+32=64

1. Course Description

This course is designed to provide students with the experience of physical exercise and sports to improve their fitness and health. The course includes both theoretical and practical activities. It gives guidelines for physical activity as well as their importance in relation to health promotion. The students have to practice some exercises and sports in the course to promote lifelong participation in physical activity.

2. General Objectives

General objectives of this course are as follows:

- To acquaint the students with the knowledge of physical exercise and sports for health promotion and avoid sedentary behaviors.
- To develop understanding of the types of physical activities suitable for different groups concerned.
- To provide experience on different physical exercise and sports for th lifelong participation in physical activities.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Clarify of the concepts of physical activity, physical exercise and sports. • Explain a brief history of physical activity and exercises as a means to improve health. • Identify the burden of inactivity and sedentary life to public health. • Discuss the significance of physical activity in social and public health and its effects on health and disease. • Describe physical fitness and its components. • Identify various ways of measuring physical activity and fitness and measure fitness according to them.	**Unit 1: Physical Exercise and Sports 12** 1.1 Concept of physical activity, exercise and sports 1.2 Historical development of physical activity as a means to improve health 1.3 Burden of inactivity and sedentary behaviors 1.4 Social and public health significance of physical activity 1.5 Effects of physical activity on health and disease (overall mortality, cardiovascular diseases, cancer, diabetes, osteoarthritis, osteoporosis, obesity, mental health, health-related quality of life) 1.6 Meaning and components of physical fitness (Health related and skill related fitness) 1.7 Measurement of physical activity and fitness 1.7.1 BMI (Body Mass Index) 1.7.2 Waist circumference 1.7.3 AAHPER Youth Fitness Test 1.7.4 Push-up Test 1.8 Maintenance of physical fitness
• Summarize guidelines for physical activity. • Identify the physical exercises and sports requirements for different age groups including	**Unit 2: Physical Exercise and Sports for Different Age Groups 12** 2.1 Guidelines for physical activity 2.2 Physical exercise and sports for growing children 2.3 Physical exercise and sports for special needs

children with special needs. • Identify various physiologic responses to episodes of exercise. • Identify possible adverse effects of physical activity. • Describe the trends of physical exercise and sports in Nepal and abroad.	children 2.4 Physical exercise and sports for adolescents 2.5 Physical exercise and sports for adults 2.6 Physiologic responses to episodes of exercise 2.6.1 Cardiovascular and respiratory systems related exercises 2.6.2 Skeletal muscle related exercise 2.6.3 Hormonal responses to exercise 2.6.4 Immune responses to exercise 2.7 Adverse effects of physical activity 2.8 Trends of physical exercise and sports in Nepal and world
• Describe the meaning, process and effects of various daily physical exercises. • Perform different daily physical exercises which are useful for health promotion • perform different local/ indigenous games and sports.	**Unit 3: Daily Physical Exercises in Promoting Health 8** 3.1 Meaning, process and effects of following daily exercises: 3.1.1 Practice of various daily physical exercises (walking, jogging, cycling, dancing, yoga, gardening and household chores) 3.1.2 local / indigenous games and sports(Telkasa, Dandibiyo , Kabaddi)
• Participate in and demonstrate different skills of track and field, games and sports. • Organize tournament of any of the games and sports within the group to develop confidence in handling the event in future.	**Unit 4: Practice of Games and Sports for Active Life 32** 4.1 Track and field (walking, running, jumping and throwing) 4.2 Participation in games for health and entertainment (any two) 4.2.1 Badminton 4.2.2 Basket Ball 4.2.3 Foot Ball 4.2.5 Table Tennis 4.2.6 Volley Ball 4.3 Organization of a tournament in any of the games and sports

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 proposed specific instructional techniques applicable to specific units or sub units or content.

4.1 General Instructional Techniques

5. Lecture and Discussion
6. Demonstration of skills
7. Participation in games
8. Video show

4.2 Specific Instructional Techniques

Unit	Activities and Instructional Techniques
1	The students themselves will measure their physical fitness using different

	techniques and test in groups with the help of the teacher. Each group will present their measurement to check whether they are right. It will be followed by teacher's feedback and suggestion.
2	The students will be given reading materials to prepare papers on physical exercises and sports for different age groups and they will also be asked to present in the plenary.
3	The students will be provided different options to perform different physical exercises. The students have to prepare their progress while performing those activities focusing on health promotion rather than the development of skills. The students will prepare record of each activity and present it in the class for discussion, which will be followed by teacher's responses.
4	The students will be asked to select at least two games as well as track and field events to practice. They will also be asked to organize a tournament so that every person will have experience of management. They also have to maintain the progress report and submit at the end and present in the class.

5. Evaluation

5.1 Internal evaluation - 40%

Internal evaluation will be conducted by the subject teachers based on the following activities:

SN	Particular	Points
1	Attendance	5
2	Participation in different activities	15
3	First assignment: Progress reporting and presentation in class OR conduction of plenary session and reporting OR Article review OR Mid-term test	10
4	Second assignment: Organization of tournament	10
	Total	**40**

5.2 External Examination (Final Examination) - 60%

Examination Division, Dean's Office, will conduct the final examination at the end of semester.

S.N	Types of question	Marks
1	Objective type question (Multiple choice 10x1 marks)	10
2	Short answer questions (6 questions x 5 marks with 2 OR questions)	30
	Total	**40**

In addition to the theoretical examination, Examination Division, Dean's Office, will appoint an external examiner to conduct a practical examination. The marks distribution will be as follows:

SN	Evaluation activities	Marks
1	Progress report	10
2	Viva Voce	10
Total		**20**

6. Recommended Books and References

6.1. Recommended Books

Ainsworth, B.E., & Macera, C.A. (2012). (Eds.). *Physical activity and public health practice.* Boca Raton, FL: Taylor & Francis Group, LLC. (Units I and II)

Barrow, H.M., & McGee, M. R. (1988). *A practical approach to measurement in physical education.* Philadelphia: Lea and Febiger. (Unit I)

Bunn, J. W. (Latest edition). *Scientific principles of coaching.* New Jersey: Prentice Hall, Englewood. (Unit I and II)

Clarke, D.H., & Clarke, H.H. (1995). *Research process in physical education, recreation and health.* New Jersey: Prentice-Hall, Inc. (Unit I)

Heyward, V. H. (1997). *Advanced fitness assessment and exercise prescription* (3rd ed.). USA: Human Kinetics. (Unit III and IV)

Mathews, D. K. (1998). *Measurement in physical education.* Philadelphia: W.B. Saunders Company. (Unit I)

Paluch, et al. (2012). History of physical activity contributions to public health. In B.E. Ainsworth and C.A. Macera (Eds.), *Physical Activity and Public Health*, 1-20, New York: CRC Presss. (Unit I)

Troiano, R.P., & Buchner, D. M. (2012). National guidelines for physical activity. In B.E. Ainsworth and C.A. Macera (Eds.), *Physical Activity and Public Health*, 195-210, New York: CRC Press. (Unit I and II)

U.S. Department of Health and Human Services. (1996). *Physical activity and health: A report of the surgeon general.* Atlanta, GA: Author. (Units I and II)

6.2. References

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2047162/

Ian Rollo, http://www.nursingtimes.net/nursing-practice/clinical-zones/public-health/understanding-the-role-of-exercise-in-health-promotion/204154.article

Shrestha, R. P. (2003). ***Surveillance of risk factors for non-communicable diseases in Nepal.*** A WHO Funded Research Report, Society for Local Integrated Development Nepal (SOLID NEPAL).

Hist. Ed. 546: History of Modern Japan (1868-1945)

Course No: Hist. Ed. 546 (Elective)

Nature of course: Theoretical

Level: M. Ed. Credit hours: 3

Semester: Fourth Teaching hours: 48

1. Course Description

This Course aims to acquaint the students with the major events in the Japanese history from the time of Meiji Restoration (1868) to the end of 2nd world war. This course intends to focus of Meji Restoration and Meiji reforms especially the constitution of 1889, Japanese foreign policy and her relation with China and Korea relating the two most important wars in the Japanese history along with the Anglo Japan Alliance, the millstone in Japanese history. The 1st and 2nd world wars and Japan's success and her surrender in 2nd world war.

2. General Objectives

The general objectives of this course are as follows:

- To make the students familiar with Tokugawa rule in Japan and Meiji Restoration (End of Isolation).
- To familiarize the student with Meiji Reforms and Constitution.
- To enable the students in analyzing the Japanese foreign policy and the wars with China and Russia.
- To provide the students with depth knowledge of Japanese participation in the world war I and II.
- To familiarize the students with the major events in Korean History.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Explain the Tokugawas rule in Japan • Analyze the causes of end of Isolation	**Unit I: Background of Japanese History (5)** 1.1 Japan under Tokugawas 1.2 End of Isolation
• Explain Meiji restoration • Analyse the reforms in education, economy, industry and army under Meiji rule. • Critically examine the Meiji Constitution of 1889.	**Unit II: Meiji Japan (8)** 2.1 Meiji Restoration 2.2 Reforms in Education, Economy, Industry and Army 2.3 Meiji Constitution 1889
• Explain the relation between Japan and China • Explain the Japanese Interest in Korea • Analyze the causes of Sino Japan war 1894-95 • State the causes and effects of Anglo Japan Alliance 1902 • Critically analyze the causes and effects of Russo Japan war 1904-5	**Unit III: Meiji Foreign Policy (8)** 3.1 Japan and China 3.2 Japan and Korea 3.3 Sino Japan war 1894-95 3.4 Anglo Japan Alliance 1902 3.5 Russo Japan war 1904-5
• Evaluate the steps taken Japan to fulfill her	**Unit IV: Japan and World war I and II (12)** 4.1 Japanese ambition in China and

ambition in China • Critically examine the causes of 21 Demands • Explain Siberian intervention by Japan • Analyse the policy of New Order in Asia by Japan after I world war • Evaluate the Japanese success in the II world war • Analyze critically why American intervention was necessary in Japan • Evaluate the works of Gen. Douglas Mac Author and end of U.S. military rule in Japan	21 Demands 4.2 Siberian Intervention 4.3 Japanese Policy of New Order in Asia after I world war 4.4 Japanese success in the II world war 4.5 American intervention and administration of Gen. Douglas Mac Author 4.6 End of U.S. military rule in Japan
• Explain the origin of Korea as a nation • Evaluate the Japanese aggressive policy in Korea • Analyze critically the division of Korea • Explain the Peoples Democracy in North Korea • Introduce the constitutional government of South Korea • Analyse the causes of the war between South and North Korea	**Unit V: Korea in the Far Eastern History (15)** 5.1 Origin of Korea as a nation 5.2 Japanese rule in Korea 5.3 Division of Korea in 1948 5.4 Peoples Democracy in North Korea 5.5 Constitutional Government in South Korea 5.6 War between North and South Korea

Not: The figures within parenthesis indicate the approximate teaching hour for the respective units.

4. Instructional Techniques

Two groups of instructional techniques have been recommended. The first group comprises common techniques applicable to most of the units. The second group includes such instructional techniques which should be applied to teach specific unit.

4.1General Instructional Techniques

Due to the theoretical nature of the course, teacher directed, guided and instructed techniques will be mostly adopted. To impart the required knowledge of the concerned units the teacher will adopt the following methods and techniques.

4. Lecture
5. Discussion
6. Paper presentation of the project
7. Brain storming and buzz session
8. Report writing assignment

4.2 Specific Instructional Techniques

Units	Activities and Instructional Techniques
Unit I: Background of Japanese History	**Group discussion**
Unit II: Meiji Japan	**Individual report writing and Group discussion**
Unit III : Meiji Foreign Policy	**Group report presentation**

Unit IV: Japan and World war I and II	**Home assignment and presentation**
Unit V: Korea in the Far Eastern History	**Term paper**

5. Evaluation

5.1 Internal Evaluation 40%

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 assignment 10 Marks
4) Second assignment (Midterm exam) assessment 10 Marks
5) Third assignment/ assessment 10 Marks

Total 40 Marks

Unit wise activities and work for Internal evaluations

Units	Activities and work for internal evaluations
Unit I: Background of Japanese History	Group discussion and presentation. (Participation in Learning activities, 5)
Unit II: Meiji Japan	Individual report writing and presentation based on Meji period (1st assignment ,5)
Unit III : Meiji Foreign Policy	List the Meiji foreign policy and compare with Nepalese foreign policy (1st assignment, 5)
Unit IV: Japan and World war I and II	Present the videos of both World Wars and make different conclusions in tabular form (2nd assignment 10)
Unit V: Korea in the Far Eastern History	Book review in relation to Korea-Nepal (One book for 3rd assignment, 10)

5.2 **External Evaluation (final examination) 60%**

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.

1) Objective type question (multiple choice 10x1 point) 10 Marks
2) Short answer question (6 questions with 2 or x5 points) 30 Marks
3) Long answer questions (2 questions with 1 or x 10 points) 20 Marks

Total 60 Marks

6.Recommended Books and References

6.1 Recommended Books

Clyde, H.P. & Beers F.B. (1971). *The Far East: A History of Western Impact and Eastern Response 1830-1970.* New Jersey: Printice Hall Inc-Englewood Cliff. **(Unit I and V)**

Fairbank, J.K., Reischaure, E.O. & Craig, A.M. (1972*). East Asia Tradition and Transformation.* Modern Asia Edition. **(Unit I-V)**

Kumar, S. & Jain S. (1976). *Far East and Modern Times.* Delhi: S. Chand and Company. **(Unit I-V)**

Reischarer, E.O (1978). *Japan the Story of a Nation*. Tokyo: Chaels E. Tuttle Company. **(Unit I-V)**

Vinacke, H.M.(1978). *A history of Far East in modern Times.* New Delhi: Kalyani Publisher. **(Unit V)**

6.2 References

Butow, R.J.C. (1954). *Japan's Decision to Surrender*.Standford University Press.

Dower, J.W. (1967). *Empire and Aftermath: Yoshida Shigeru and Japanese Experience 1878-1954.* Cambridge: Council on East Asian Studies, HarwardUnivesrsity Press.

Hall, J.W. (1974). *Japan from Pre History to Modern Times.* Berkeley: University of California

Jean, M. &Bergere, M. (1986).*China from the Opium war to 1911 Revolution.*Translated from the French by Anne Destennay.Delhi:Khosla Publishing House.

Jones, F.C. (1972). *Japan's New Order in East Asia: Its rise and Fsll 1937-1945.* London: Oxford University Press.

Nakane, C. (1972). *Japanese Society.* Berkeley: University of California Press.

Hist. Ed. 545: Administrative History of Nepal

Course No: Hist. Ed. 545 (Elective) Nature of course: Theoretical

Level: M. Ed. Credit hours: 3

Semester: Fourth Teaching hours: 48

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1. Course description

This course intends to acquaint the students with the major events of the administrative history of Nepal. The course aims to provide the required knowledge of administrative history of ancient, medieval and modern Nepal. This course deals with the administrative system of ancient and medieval Nepal, as well as after the unification, Rana period, Panchayat period and post-modern period of Nepal

2.General Objectives:

- To enable the students to make understanding of introduction of administration
- To enable the students with the knowledge of administration during ancient period
- To impart the knowledge of medieval period of Nepal
- To make familiarize the student the knowledge of administration after unification of Nepal
- To acquaint the knowledge of administration during the Rana System in Nepal
- To make the student familiar with the administration Development during 1951-2061
- To enable the students with the administration during Panchayat System
- To impart the knowledge of post democracy period administration (1990-2013)

3. Specific Objectives and Contents

Specific Objectives	Contents
• State the Nepalese administration with global context • Explain the administration during Kirat period • Describe the administration during Lichchhavis • Analyze the importance of Panchali	**Unit I: Ancient period administration** **(6)** 1.1 Introduction of Nepali Administration 1.2 Kirat period Administration 1.3 Lichchhavi period administration 1.4 Importance of Panchali
• State he Malla administration • Acquaint the Baise state's administration • Familiarize administration of	**Unit II: Medieval Period administration** **(6)** 2.1 Malla administration 2.2 Baise states administration

Chaubise principalities • Describe the administration in other major small states	2.3 Chaubise principalities administration 2.4 Other major states administration (Makwanpur, Chaudandi and Vijayapur)
• State the Administration during Prithvinarayan Shah and after • Explain the administration during BhimsenThapa • Evaluate the feature and importance of Mluki Ain 1910 B.S • State the central administration during Rana Period • Explain the Gauda administration and role of Badahakim • Describe the local administration	**Unit III: Administration After Unification** **(10)** 3.1 Administration during Prithvinarayan Shah and after 3.2 Administration during BhimsenThapa 3.3 Feature and importance of Mluki Ain 1910 B.S 3.4 Central Administration 3.5 GaudaAdministration and role of Badahakim 3.6 Local administration
• Evaluate the administration reform (Buch commission, Tank Prasad Achary, Bedanand Jha and Bhesh Bahadur Thapa) • Analyze the civil service acts 2013 B.S. • State the central administration • Explain the district administration • Describe the local administration	**Unit IV: Administration Development during 1951-1961** **(10)** 4.1 Administration reform (Buch commission, Tank Prasad Achary, Bedanand Jha and Bhesh BahadurThapa) 4.2 The civil service acts 2013 B.S. 4.3 Central administration 4.4 District administration 4.5 Local administration
• Explain central administration • Describe regional administration • State zonal administration • State district administration • Explain local administration • Analyze the decentralization practice during Panchayat system • Explain the main feature of Muluki Ain of 2020 AD	**Unit V: Administration during Panchayat System** **(10)** 5.1Central administration 5.2 Regional administration 5.3 Zonal administration 5.4 District administration 5.5 Local administration 5.6 Decentralization practice 5.7 Muluki Ain 2020 AD
	Unit VI: Post Democracy period administration (1990-2013)

• Analyze the Administration Reform Commission 2048 B.S. • Evaluate the Local Governance Act 2055 B.S. • Explain the decentralization during post democracy period • Describe the local governance during post democracy period	**(6)** 6.1 Administration reform commission 2048 B.S. 6.2 Local Governance Act 2055 B.S. 6.3 Decentralization during post democracy 6.4 Local governance

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

4. Instructional Techniques

Two groups of instructional techniques have been recommended. The first group comprises common techniques applicable to most of the units. The second group includes such instructional techniques which should be applied to teach specific unit.

4.1General Instructional Techniques

Due to the theoretical nature of the course, teacher directed, guided and instructed techniques will be mostly adopted. To impart the required knowledge of the concerned units the teacher will adopt the following methods and techniques.

- Lecture
- Discussion
- Paper presentation of the project
- Brain storming and buzz session
- Report writing assignment

4.2 Specific Instructional Techniques

Units	Activities and Instructional Techniques
Unit I: Introduction Administration	Group discussion
Unit II: Ancient period administration	Home assignment
Unit III: Medieval Period administration	Report writing and presentation
Unit IV: Administration After Unification	Report writing
Unit V: Administration during Rana period	Case study
Unit VI: Administration Development during 1951-2061	Group discussion
Unit VII: Administration during Panchayat System	Group discussion with resource person
Unit VIII: Post Democracy period administration (1990-2013)	Discussion with resource person
Unit IX: Newly Adopted Constitution 2072	Book Review

5. Evaluation

5.1 Internal Evaluation 40%

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

6)	Attendance	5 Marks
7)	Participation in Learning activities	5 Marks
8)	First assignment	10 Marks
9)	Second assignment (Midterm exam) assessment	10 Marks
10)	Third assignment/ assessment	10 Marks
	Total	40 Marks

5.2 External Evaluation (final examination) 60%

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.

4)	Objective type question (multiple choice 10x1 point)	10 Marks
5)	Short answer question (6 questions with 2 or x5 points)	30 Marks
6)	Long answer questions (2 questions with 1 or x 10 points)	20 Marks
	Total	60 Marks

Unit wise activities and work for internal evaluation

Units	Activities and work for internal evaluations
Unit I: Ancient period administration	Write your reflection based on Ancient period administration and present in class (Participation in Learning activities, 1)
Unit II: Medieval Period administration	List out Medieval Period administration and its' features (1st assignment, 1)
Unit III: Administration After Unification	Prepare flow chart to show Administration After Unification (1st assignment, 2)
Unit IV: Administration Development during 1951-2061	Prepare timeline to show Administration Development during 1951-2061 (2nd assignment)
Unit V: Administration during Panchayat System	Make report administration system of Panchayat period and present in class (3rd assignment 3)
Unit VI: Post Democracy period administration (1990-2013)	Invite resource persons to presents Post Democracy period administration (1990-2013) (3rd assignment)

6. Recommended books and References

6.1 Recommended books

Bhattarai, G (2059). *Ranakalin Jilla Prashasan Ma Wadahakimharu ko Bhumika*. Kathmandu: Nepal Ra Asiyali Anusandhan Kendra.

Khanal, R. (2006). *Local Self Governance in Nepal*. Lalitpur: Smriti Books.

Kumar, S. (1967). *Rana polity in Nepal*. Bombay: Asia Publishing House.

Pangeni, B (2065). *Nepal Ko Prashasanik Itihas (Bhag II):Palpa Gauda Prashashan ka Dui Dashak (1861-1881 B.S)*. Kathmandu: Shraddha SharasthaPrakashan.

Paudyal, M. P. (1989). *Administrative Reform in Nepal*. Delhi: National Book Organization.

Shrestha, T.N.(1976). *The Concept of Local government and Decentralization*. Kathamandu: Ratna Pustak Bhandar.

Shrestha, T. N. (2005). *Nepalese Administration: a Historical Perspective.* Kathmandu: Ratna Pustak Bhandar.

Thapa, K. B. (1988). *Main Aspects of Social, Economic and Administrative History of Modern Nepal*. Kathmandu: MisAmbikaThapa.

Upadhyaya, S.P. (2069) 4th edit., *Nepal Ko Samajik, Arthik Tatha Prashasanik Itihas*, Kathmandu: Ratna Pustak Bhandar.

Vaidya, T. R. and Bajrachary, B. R. (2055). *Madhyakalin Nepal Ko Prashanik Itihas*. Kathmandu: Nepal Ra Asiali Anusandhan Kendra.

Vaidya, T.R. Manadhar T. R. (2053). *Adhunik Nepal KoPrashasanikItihas(1768-1951).* Kathmandu: Nepal Ra Ashiyali Anusandhan Kendra.

6.2 References

Agrawal, H. N. (1976). *The administrative system of Nepal*. Delhi: Vikash Publishing House.

Local Governance Act 2055 and Civil Service Act 2069 B.S. (Third Ammendment)

Pant, S. and Dutta (2057). *Aspect of Decentralization in Nepal*. Lalitpur:SajhaPrakashan.

ICT. Ed. 548: Machine Learning

Course No.: ICT. Ed. 548 (Elective) | Nature of course: Theoretical + Practical
Level: M.Ed. | Credit hours: 3 (1T+2P)
Semester: Fourth | Teaching hours: 64 (32+32)

1. Course Description

This course provides machine learning (ML) and data processing fundamentals, enabling students to use ML in a variety of applications. Starting with data processing and visualization, the course covers supervised and unsupervised ML algorithms, recommendation systems, and NLP basics. After completion this course, students will be ready to apply ML to real-world situations and understand text data processing.

2. General Objectives of the Course

Following are the general objective of this course:

- To expose students to the fundamentals of data processing at ML.
- To enhance students' data visualization skills using ML tools and algorithms.
- To assist students to implement supervised and unsupervised machine learning algorithms competently.
- To enable students to formulate recommendations on ML.
- To enable the student to manipulate textual data.
- To allow students to comprehend the fundamentals of NLP.

3. Specific Objectives and Contents

Specific Objectives	Contents
• To make students able to clean data. • To understand capabilities and limitations of inferential statistics. • To explore various types of errors.	**Unit 1: Data Processing and Inferential Statistics (14)** 1.1 Review of NumPy Arrays, data analysis with Pandas, Data Cleansing, Data Operations. 1.2 Various forms of distribution, z-score, p-value, One-tailed and two-tailed tests, Type 1 and Type 2 errors, confidence interval, Correlation, Z-test vs T-test, F distribution, chi-square distribution 1.3 Chi-square for the goodness of fit, The chi-square test of independence, ANOVA. **Practical Works** Write programs related to data cleaning, correlation, various tests and distributions.
• Understand concepts of data analysis and presentation • Able to write programs to draw various kind of charts. • Understand strength and weakness of various charts.	**Unit II: Presenting Data Analysis (12)** 2.1 Data mining, Presenting an analysis, Studying the Titanic, Controlling the line properties of a chart. 2.2 Creating multiple plots, Playing with text, Styling your plots, Box plots, Heatmaps, Scatter plots with histograms, scatter plot matrix 2.3 Area plots, Bubble charts, Hexagon bin plots, Trellis plots, 3D plot of a surface. **Practical Works**

	• Write programs to create various types of charts.
• Explore the concept of machine learning. • Understands types of machine learning algorithms. • Demonstrate classification and prediction algorithms.	**Unit III: Supervised Learning (12)** 3.1 Machine learning, Different types of machine learning, Working of Classification Algorithms, classification vs. prediction. 3.2 Linear regression, Decision trees, Logistic regression, naive Bayes classifier 3.3 Concept of Ensemble Methods, Making predictions with random forest. **Practical Works** Write programs to implement various classification and prediction algorithms.
• Understand basic concepts of clustering. • Demonstrate various clustering algorithms. • Demonstrate various recommendation algorithms.	**Unit IV: Unsupervised Learning (12)** 4.1 Clustering, Types of clustering algorithms, Measures of Similarity. 4.2 K-means clustering, K-medoid Clustering, Hierarchical Clustering. Applying Segmentation with k-means Clustering. 4.3 Generating Recommendations, Collaborative vs. Content Based Recommendation, Collaborative Filtering. **Practical Works** Write programs to implement various clustering and recommendation algorithms.
• Understand concept of text mining. • Demonstrate steps of text mining. • Understand concepts of big data. • Demonstrate MapReduce and Hadoop in handling Big Data.	**Unit V: Text Mining and Big Data (14)** 5.1 Preprocessing data, Creating a wordcloud, Word and sentence tokenization, Parts of speech tagging, Stemming and lemmatization. 5.2 The Stanford Named Entity Recognizer, Performing sentiment analysis on world leaders using Twitter. 5.3 Hadoop, Python MapReduce, File handling with Hadoopy, Pig, Python with Apache Spark **Practical Works** Write programs to solve NLP and Big data related problems

4. Instructional Techniques

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

4.1 General Techniques

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

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

4.2 Specific Instructional Techniques

Unit	Activity and instructional techniques	Teaching Hours (32)
I-V	Use python to implement the data processing, visualization, and machine learning related problems.	

Note: ***Specific Instructional Techniques may or may not require for each of the units mentioned in course outline.***

5. Evaluation

a. Evaluation (Internal Assessment and External Assessment):

Nature of course	Internal Assessment	External Practical Exam/Viva	Semester Examination	Total Marks
Theory	40%	20%	40%	100%

Note*: Students must pass separately in internal assessment, external practical exam / viva and or semester examination.*

b. Evaluation for Part I (Theory)

i. Internal Evaluation 40%

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

1) Attendance	5 points
2) Participation in learning activities	5 points
3) First assessment (written assignment)	10 points
4) Second assessment (Term examination)	10 points
5) Third assessment (Internal Practical Exam/Case Study)	10 points
Total	40 points

c. External Evaluation (Final Examination) 40%

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

1) Objective type question (Multiple choice 10questionsx1mark)	10 marks
2) Short answer questions (6 questions with 2 OR x 5 marks)	30 marks
Total	40 marks

d. **Evaluation for part II (practical) 20%**

Nature of the course	Semester final examination by External Examiner	Total percent
Practical	20	100

6.3.1 Practical Examination Evaluation Scheme

a) External assessment ……20

i) Record book ……. 4

ii) Laboratory work exam/Case…….. 8

iii) VIVA…….. 8

Recommended Books

Madhavan, S. (2015). *Mastering Python for data science: Explore the world of data science through Python and learn how to make sense of data*. Packt Publ.

Raschka, S., & Mirjalili, V. (04). *Python machine learning: Machine learning and deep learning with Python, scikit-learn, and TensorFlow* (Second edition, fourth release,[fully revised and updated]). Packt Publishing.

Artasanchez, A., & Joshi, P. (2020). *Artificial intelligence with Python: Your complete guide to building intelligent apps using Python 3.x* (Second edition). Packt.

ICT. Ed. 549: Cloud Computing

Course No.: ICT. Ed. 549 (Elective) Nature of course: Theoretical + Practical

Level: M.Ed. Credit Hour: 3 (2+1)

Semester: Fourth Teaching Hour: 64 (32+32)

1. Course Description

This course aims to provide students with a deep understanding of cloud computing concepts and technologies. The course covers a wide range of topics, from the fundamentals of cloud computing to advanced cloud security practices. Through a combination of theoretical knowledge and practical hands-on tasks, students will gain the skills necessary to effectively design, implement, and manage cloud-based solutions.

2. General Objective:

The general objectives of this course are as follows:

- To explore the concept, services model and deployment model of cloud computing its role in modern technology.
- To explore major cloud platforms like AWS, Azure, and Google Cloud to deploy and manage applications.
- To gain skills to how virtualization optimizes resource usage and supports cloud services.
- To gain practical skills in automating tasks, scaling resources, and optimizing application performance in the cloud.
- Discover essential security practices to safeguard data, applications, and infrastructure in the cloud environment.

3. Course Outlines:

Specific Objectives	Contents	Hrs.
• Discuss concept of cloud computing and its uses in education. • Compare cloud services models • Discuss the cloud deployment model. • List the challenges of cloud implementation in education.	**Unit 1: Introduction to Cloud Computing** 1.1 Overview of Cloud Computing 1.2 Cloud Computing in Education System 1.3 Cloud Service Models: IaaS, PaaS, SaaS 1.4 Cloud Deployment Models: Public, Private, Hybrid and Community Cloud 1.5 Benefits and Challenges of Cloud Computing in education system 1.6 Cloud Service Providers and Market Landscape **Practical Work/Case study** • Set up a basic cloud account with a popular cloud	**8T+2P**

	provider and explore the provided services and features	
• Explore the AWS cloud computing platforms and features • Explore the Azure cloud computing platforms and features • Explore the GCP cloud computing platforms and features	**Unit 2: Cloud Computing Platforms and Practices** 2.1 Amazon Web Services (AWS): EC2 (Elastic Compute Cloud), S3 (Simple Storage Service), Lambda, DynamoDB 2.2 Microsoft Azure: Virtual Machines, App Service, Storage, Kubernetes Service 2.3 Google Cloud Platform (GCP): Compute Engine, App Engine, Cloud Storage, Cloud Functions, Kubernetes Engine **Practical Work/Case study** • Among three services provider Accessing cloud portal • Working with Command Line interface and PowerShell • Calculate pricing of service and subscription • Observing security center • Compare storage services	**6T+4P**
• Define the concept virtualization technologies. • Demonstrate the hypervisors and containerization. • Define the hardware and software to use in virtualization. • Monitoring the virtual machines • Work on virtualization platforms • Access cloud virtual machines	**Unit 3: Virtualization** b. Virtualization Technologies c. Hypervisors (Type 1 and Type 2) d. Containerization e. Hardware and software virtualization. f. Virtual machine monitors (VMMs). g. Virtualization Platforms: VMware vSphere, Microsoft Hyper-V. **Practical Work/Case study** • Create Virtual Machines (VMs) • Install appropriate OS in cloud VMs • Setup Virtual Network interface in VMs • Setup and configure IP address parameters • Access machine with Remote Desktop Protocol and SSH	**4T+8P**
• Deploy the IAM. • Use the storage services and data management. • Work on Network services and virtual private clouds • Explore the data services and data	**Unit 4: Cloud Manage Services** 4.1 Identity and Access Management (IAM) 4.2 Storage Services and Data Management 4.3 Networking Services and Virtual Private Clouds (VPCs) 4.4 Database Services and Data Warehousing 4.5 Content Delivery Networks (CDNs) **Practical Work/Case study**	**2T+9P**

warehousing. • Define CDNs	• setup and configure domain controller • setup and configure RBAC • setup and evaluate policies • Setup and configure server message block (SMB) • Synchronize and migrate location of file • Configure extension for storage backup • Achieving storage	
• Apply security practices to IAM and root users • Determine network segmentation strategies • Design flexible authorization model • Design secure workload and application • Encrypt data at rest • Implement access policies for encryption keys	**Unit 5: Cloud Security** 5.1 Cloud Security Challenges: Cloud Security Challenges, Identity and access management , Network security 5.2 Security Measures in Cloud Computing: Encryption and key management, Security groups and access controls, Intrusion detection and prevention systems, Security audits and monitoring. 5.3 Cloud Security Providers and Services: IAM, Azure Active Directory. Google IAM **Practical Work/Case study** • Implement identity, access and security • Implement end-to-end encryption for data at rest and in transit, configure firewall rules, and design a disaster recovery plan for a cloud-based application. • Collect telemetry data from cloud and on-premises • Implement security services • Implement data access and protection • Collect metrics and logs from resource • Integrate SIEM and ITSM tools • Implementing access policies for encryption keys • Setup alert and actions • Enable security features for resource	**2T+9P**

4. Instructional Techniques

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

4.1 General Techniques

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

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

4.2 Specific Instructional Techniques

Unit	Activity and instructional techniques	Teaching Hours (32)
III-VII	Perform the given practical activities using major three cloud services provider Amazon Web Services, Microsoft Azure, Google Cloud Platform (GCP) or other market compatible cloud services provider.	

Note: ***Specific Instructional Techniques may or may not require for each of the units mentioned in course outline.***

5. Evaluation

5.2 Evaluation (Internal Assessment and External Assessment):

Nature of course	Internal Assessment	External Practical Exam/Viva	Semester Examination	Total Marks
Theory	40%	20%	40%	100%

Note*: Students must pass separately in internal assessment, external practical exam / viva and or semester examination.*

5.3 Evaluation for Part I (Theory)

5.3.1 Internal Evaluation 40%

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

6) Attendance	5 points
7) Participation in learning activities	5 points
8) First assessment (written assignment)	10 points
9) Second assessment (Term examination)	10 points
10) Third assessment (Internal Practical Exam/Case Study)	10 points
Total	40 points

5.4 External Evaluation (Final Examination) 40%

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

3) Objective type question (Multiple choice 10questionsx1mark) 10 marks
4) Short answer questions (6 questions with 2 OR x 5 marks) 30 marks

Total 40 marks

5.5 **Evaluation for part II (practical) 20%**

Nature of the course	Semester final examination by External Examiner	Total percent
Practical	20	100

6.3.1 Practical Examination Evaluation Scheme

b) External assessment ……20

iv) Record book ……. 4

v) Laboratory work exam/Case…….. 8

vi) VIVA…….. 8

6. Recommended books and reading materials (including relevant published articles in national and international journals)

7. Reference materials

Erl, T., Puttini, R., & Mahmood, Z. (2013). *Cloud computing: Concepts, technology, & architecture*. Prentice Hall.

Buyya, R., Broberg, J., & Goscinski, A. (2013). *Cloud Computing: Principles and Paradigms*. Wiley.

Bahga, A., & Madisetti, V. (2014). *Cloud computing: A hands-on approach*. Self published, Arshdeep Bahga & Vijay Madisetti.

Marinescu, D. C. (2013). *Cloud computing: Theory and practice*. Elsevier, Morgan Kaufmann.

Rittinghouse, J. W., & Ransome, J. F. (2010). *Cloud computing: Implementation, management, and security*. CRC press.

Information Resources Management Association (Ed.). (2015). *Cloud technology: Concepts, methodologies, tools, and applications*. Information Science Reference, an imprint of IGI Global.

Math. Ed. 546: Operation Research **Nature of course: Theoretical**
Course number: Math. Ed. 546 (Elective) **Credit hours: 3**
Level : M. Ed. **Teaching hours: 48**
Semester: Fourth

1. Course Description

This course is concerned with the optimal allocation of scarce resources and optimal strategies. It helps to find the best solution through probability analysis by Markov chains and apply appropriate strategies to find the value of game. This course also helps to find the optimal solutions for assignment and transportation problems by linear and nonlinear methods. Beside these this course helps to apply different types of forecasting models in the field of education.

2. General Objective

The general objectives of this course are as follows:

- To make students able to explain the nature and phases of operations research
- To enable the students to understand techniques of solving problems of Markov chains.
- To make the students familiar with various methods of queuing theory and game theory.
- To make students able to deal with linear, non-linear and transportation problems.
- To familiarize students with the basic concepts of inventory models and its application.
- To enhance students to use time series models and fit the causal models in education and research.

3. Specific Objectives and Contents

Objectives	Contents
• Explain the origin, concept, and nature. • Illustrate phases of operations research (OR).	**Unit I: Concept of Operation Research –(2)** 1.1Origin, concept and nature of operation research 1.2 Phases of Operation Research
• Describe the problems that lead to Markov Chain and formulate the process. • Use the theory of probability to analyze problems by using Markov Chain including Ergodic chain • Determine the steady state condition and absorbing Markov Chains	**Unit II: Markov Chains (7)** 2.1 Formulation of processes as a Markov Chain 2.2 Probability analysis by Markov Chains 2.3 Ergodic Markov Chains 2.4 Determination of Steady-State Conditions 2.5 Absorbing Markov Chains and Their Analysis.
• Describe queuing system and its characteristics • Classify various symbols, notations and queuing	**Unit III: Queuing Theory (6)**

models. • Describe Poisson's process and exponential distribution to the study of queuing theory. • Describe the distribution of interval and service times • Explain Poisson's queue and their characteristics.	3.1 Queuing system and its characteristics 3.2 Classification of queuing models, symbols and notations 3.3 Poisson's process and exponential distributions 3.4 Distribution of interval and service times 3.5 Classification of queues: Poisson's queue and their characteristics.
• Introduce linear programming • Solve non-linear programming problems. • State standard form of transportation problem. • Describe the steps of transportation problem with example • Use linear programming formulation of the transportation problem. • Explain various types transportation problem and solve the given transportation problem • Explain various methods of solving transportation problems. • Use enumeration, LPP transportation and Hungarian method to the solution of assignment problem.	**Unit IV: Dynamic Programming, Transportation and Assignment Problem(11)** 4.1 Introduction to Linear Programming 4.2Non-linear programming methods 4.3 The transportation problem 4.3.1 Standard form 4.3.2 Steps of transportation problem 4.3.3 LPP of the transportation problem. 4.4 Types of transportation problem 4.5 Methods of solving of transportation problem 4.5.1 North-West Corner Method 4.5.2 Vogel's Approximation Method 4.6 Assignment problem 4.7 Methods of solving assignment problem 4.7.1 Enumeration method 4.7.2 Linear programming method 4.7.3 Transportation method 4.7.4 Hungarian method.
• Explain the meaning of game • Describe various types of games. • Describe various types of strategies used in two person zero –sum game • Explain expected value of a game • Solve the matrix game using saddle point. • Solve the game by probability method. • Solve the game by rule of dominance • Solve the game by graphic. • Solve the game by LPP and algebraic methods.	**Unit V: Game Theory (8)** 5.1 Introduction 5.2 Types of game 5.2.1 Competitive games 5.2.2 Matrix game 5.2.3Two person zero sum game 5.3 Strategies in games 5.3.1 Pure strategy 5.3.2 Mixed strategy 5.3.3 Mini-max and maxi-min strategy 5.3.4 Related theorems 5.4 Expected value of a game,

	5.4.1Optimal strategies for non-strictly determined games 5.4.2 Theorem related to optimal strategies (Games without saddle point) 5.4 Methods of Solution to the Games 5.5.1 Method 1: Saddle Point Method 5.5.2 Method 2: Probability Method 5.5.3 Method 3: Rule of Dominance. 5.5.4 Method 4: Graphic Method 5.5.5 Method 5: Method of LPP 5.5.6 Method 6: Algebraic Method
• Clarify the concept basic to inventory models. • Derive the formula and solve economic lot size inventory problems related to uniform rate of demand, infinite production rate and having no shortage • Derive the formula and solve economic lot size inventory problems related to different rate of demand, in different production cycles, infinite production rate and having no shortage • Derive the formula and solve economic lot size inventory problems related to uniform rate of demand, finite rate of replenishment having no shortage	**Unit VI: Inventory and Replacement Models (6)** 6.1 Basic concepts to inventory models 6.2ModelI: Uniform rate of demand, infinite production rate and having no shortage 6.3ModelII: Different rate of demand, in different production cycles, infinite production rate and having no shortage 6.4ModelIII: Uniform rate of demand, finite rate of replenishment having no shortage
• Explain the meaning of forecasting. • Explain the different types of forecastingmodels used in the field of education. • Use timeseries models in education. • Fit the causal models using simple and multiple models of forecasting.	**Unit VII: Forecasting (8)** 7.1Introduction 7.2 Forecasting models 7.2.1 Qualitative models 7.2.2 Timeseries models 7.2.3 Moving Averages, 7.2.4 Exponential Smoothing 7.2.5 Trends projection 7. 3CausalModels 7.3.1 Simple Regression model, 7.3.2 Goodness of fit 7.3.3 Multiple regression models.

Note: The figures in the parentheses indicate the approximate teaching hours allocated to respective units.

4. Instructional Techniques

The instructor will select the method or methods of instruction most suitable for a particular topic. It is quite acceptable to select more than one method and combine them into a single period of instruction whenever it is needed. The general and specific instructional techniques are described below.

4.1 General Instructional Techniques

Following general instructional techniques will be adopted according to the need and nature of the lesson:

- Lecture with illustration,
- Discussion,
- Question-answer
- Collaborative learning

4.2 Specific Instructional Techniques

Units	Activities and Instructional Techniques
I	• Classroom discussion in internet browsing for the steps of OR with support of teachers.
II	• Discussion about the situation where Markov chain is applicable. • Exercise on the use probability techniques in solving Markov chain problems.
III	• Group discussion on the exercises of fitting data into computer and determining the shape of queuing system (Poisson, normal, and exponential)
IV	• Individual assignment on the use linear programming and non-linear programming problems • Group discussion and individual assignment on solving transportation and assignment problems.
V	• Discussion on solution of exercises on the use of linear programming while solving game theory problem.
VI	• Exercise on the use of calculus to find the optimal order size, optimal order time, lead time and use them in solving practical problems.
VII	• Discussion to generate the time series models from the previous data and use to estimate and establish the causal relationship

5. Evaluation

5.1 Internal Evaluation (40%)

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

- Attendance 5 marks
- Participation in learning activities 5 marks
- First assessment(assignment) 10 marks

- Second assessment(written test) 10 marks
- Third assessment(written test 10 marks

Total 40 marks

5.2 External Examination (60%)

Examination Division of the Dean Office, Faculty of Education will conduct final examination at the end of the semester .The number of questions and marks allocated to different types of questions will be as follows:

- Objective questions 10 (multiple choice) (10 × 1) 10 marks
- Short answer questions 6 with 2 OR questions (6× 5) 30 marks
- Long answer questions 2 with 1 OR question (2×10) 20 marks

Total 60 marks

6. Recommended Books and References

6.1. Recommended Books

Gupta, P. K. &Hira, D. S (2007). *Operations research*(4thEd.). Delhi: Sultan Chand and Sons (Units I-V)

Shamling, J. (1989). *Operations research*, US: Macmillan (Units I-V)

Sharma, J. K. (2012). *Operations research*. Delhi: Macmillan India Limited (Units III-VI)

Vohra N. D. (2007). *Quantitative techniques in management.* 3 Ed. New Delhi: Tata McGraw-Hill. (Unit VII)

6.2. References

Brown, R. F., & Brown B. W. (1992). *Finite mathematics*. New York: Ardsley House Publishers, Inc.

Pandit, R. P. (2011). *An introduction to operations research*. Kathmandu: Indira Pandit.

Swarup, K; Gupta, P. K. & Mohan, M. (2009). *Operations research*. Delhi: Sultan Chand and Sons.

Bronson, R. (1983). *Theory and problems of operation research, Schaum's Series.* Singapore: McGrow-Hill Book Company.

Hiller, F. S. &Liberman, G. J. (2001). *Introduction to operations research* (7th Ed). New York: McGraw-Hill

Math. Ed. 548: ICT in Mathematics Education
Course no: Math. Ed. 548 (Elective) Level: M.Ed.
Semester: Fourth Nature of the course: Theory + Practical
Credit Hours: 3 [1cr. Theory+2 cr. Practical] Teaching hours: 80

1. Course Description

This course is designed to provide wider knowledge and skills on the use of Information and Communication Technology (ICT) in Mathematics Education. It comprises a range of skills varying from basic literacy to handling mathematical software, explicitly Latex, GeoGebra and Mathematica while teaching various mathematics courses at tertiary and graduate levels. The course is divided in five major units. It starts with basic digital literacy and then introduces cloud storage applications (apps). Then the course introduces a theoretical and practical understanding of latex interface. Finally, the course focuses on developing software-integrated teaching skills to edify mathematical concepts using GeoGebra and Mathematica/Maple/MATLAB.

2. General Objectives

The general objectives of the course are as follows:

- To apply and work with basic digital literacy skills.
- To utilize web technology as a communication tool.
- To produce mathematical text in a Latex environment.
- To prepare instructional methods using GeoGebra tools.
- To demonstrate instructional methods using scientific computing tools.

3. Content Details

Unit I: Digital Literacy [10 hrs.]

Learning Outcomes	Contents
• Apply features of word processing to design a term paper, proposal, and thesisreport • Apply Spreadsheets for basic mathematical computing andgraphing • Apply PowerPoint for presentations	**Word processing, Spreadsheets and PowerPoint** a) Text Formatting, sections, and page breaks b) Level of headings, captions, TOC, andreferences c) Track and comment d) Working with spreadsheets e) Working with PowerPoint Presentation

Unit II: Web Technology (10 hrs.)

Learning Outcomes	Contents
• Use text and media related tools to design text, graphics, and media relatedfiles • Store/share digital files in webapplications • Develop collaboration and communication skills using webapplications.	a) Email and Blog b) Cloud Storage tools c) Web communication and collaborationtools

Unit III: Latex Interface (10 hrs.)

Learning Outcomes	Contents
• To use latex to prepare term paper,proposal, and thesis report • To use latex to develop mathematicsrelated documents	a) Document structure in Latex b) Packages in Latex c) Typing and developing math text d) Adding pictures e) Formatting reports f) Generating table of content of report g) Citation and Bibliography in Latex.

Unit IV: GeoGebra [20 hrs.]

Learning Outcomes	Contents
• To use GeoGebra to developGeometry, • Algebra, Spreadsheet, CAS, and • Probability related work • To develop GeoGebra based teachingmodels for school-related 3D figures	**Basics of 2D mathematics** a) Point, line, equation,function, inequalities b) Polygon, Circle **Basics of 3D mathematics** a) Prism, Pyramid, Cone, Cube

Unit V: Mathematica/Maple/MATLAB for Teaching Mathematics [30hrs.]

Learning Outcomes	Contents
• To use high-level numerical languageto develop mathematics specific teaching resources on • 2D and 3D Graphics • Algebra and Trigonometry • Geometry • Calculus (Differential and Integral) • Probability and Statistics	Use of Mathematica/Maple/MATLAB to develop and solve problems related to a) 2D and 3D Graphics b) Algebra and Trigonometry c) Geometry d) Calculus (Differential and Integral) e) Probability and Statistics

Vi) Instructional Techniques

- Lecture cum Demonstration
- Visualization
- Lab work (Individual work)
- Group work

- Case study
- Project work

vii) Evaluation

5.1 Internal Evaluation of theory part 15 marks (40 %) of 35 Marks

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

• Attendance	2 marks
• Participation in learning activities	3 marks
• First assessment (assignment/practical work)	10 marks
Total	**15 Marks**

5.2 Internal evaluation of practical part

Internal evaluation of practical part will be conducted by the course teacher based on the followingactivities:

• Attendance	5 marks
• Participation in learning activities	5 marks
• Assessment (based on practical work)	10 marks
• Practical work	10 marks
Total	**15 Marks**

5.3 External Evaluation of theory part 20 Marks (60 %)

Examination Division, Office of the Dean, Faculty of Education will conduct the finalwritten and practical examination at the end of the semester as follows.

Written Examination [20 Marks]

Multiple Choice items 5 questions.	5× 1 = 5 Marks
Short answer questions 3 items with one OR question.	3× 5 = 15 Marks
Total	**20 Marks**

Practical Examination [40 Marks]

The external examiner appointed by the Office of the Dean, Faculty of Education will conduct thepractical examination.

Marking Criteria of external examination

Lab work (practical examination)	30
Viva-voce	10
Total	**40 Marks**

viii) Recommended and References

6.1 Recommended Books

Hastings, C., Mischo, K., & Morrison, M. (2015). *Hands-on start to Wolfram*

Mathematica. WolframMedia. (Unit V)

Hall, J. & Lingefjard, T. (2016). *Mathematical Modeling Application with GeoGebra*. Wiley. (UnitIV)

Krishnan & Krishna (2003). *LaTex Tutorials*. Indian TEX Users Group,India (Unit III)

https://support.office.com/ (Unit I)

https://support.google.com/ (Unit II)

6.2. Reference Books

Ruskeepaa, H. (2009). Mathematica navigator mathematics, statistics and graphics (3rd Eds.). AcademicPress. (Unit V)

Anastassiou, G. A. & Iatan, I. F. (2013). *Intelligent Routines: Solving Mathematical Analysis withMatlab, Mathcad, Mathematica, and Maple*. Springer. (Unit V)

Wagon, S. (2010). *Mathematica in action: Problem solving through visualization and computation.* Springer. (Unit V)

Walter & Jiri (2004). *Solving - problems in scientific computing usingMaple and Matlab*, Springer-Verlag. (Unit V)

नेपा.शि. ५४५ : भाषिक सम्पादन कला पाठ्यांशको प्रकृति : सैद्धान्तिक/प्रयोगात्मक

पाठ्यांश सङ्ख्या : नेपा.शि. ५४५ (ईच्छाधिन) क्रे.आ. : ३ (सैद्धान्तिक २ + प्रयोगात्मक १)

तह : एम. एड. जम्मा पाठघन्टी : ३२+३२ = ६४

सेमेस्टर : चौथो

१. पाठ्यांश परिचय

यो पाठ्यांश सम्बन्धित तहका विद्यार्थीहरूमा भाषा सम्पादन कौशलसम्बन्धी क्षमता अभिवृद्धि गर्ने उद्देश्यले तयार पारिएको हो । यसमा पाँचवटा एकाइ छन् । यी एकाइमा प्रस्तुत विषयवस्तुबाट भाषा सम्पादनको सैद्धान्तिक परिचयका साथै यसका आधारभूत पक्ष र प्रक्रियासम्बन्धी प्रायोगिक सिप विकासमा विद्यार्थीहरूको सक्रिय सहभागिता रहने अपेक्षा राखिएको छ ।

२. साधारण उद्देश्य

यस पाठ्यांशका साधारण उद्देश्यहरू यसप्रकार छन् :

- लिखित अभिव्यक्तिको परिचयसहित यसका प्रकार एवम् विविध प्रकृतिका लेखन सिप क्षमता अभिवृद्धि गर्ने,
- अनुच्छेदको सैद्धान्तिक अवधारणाका साथै विविध स्वरूपका अनुच्छेद लेखनमा अभ्यस्त बनाउने,
- भाषा सम्पादनका सैद्धान्तिक पक्षका साथै यसका प्रकार वर्णन गर्न अभिप्रेरित गर्ने,
- भाषा सम्पादनका आधारभूत पक्षसँग परिचित हुँदै विधा र विषयअनुरूप पाण्डुलिपिको भाषा सम्पादनकलामा दक्ष तुल्याउने,
- भाषा सम्पादन प्रक्रियाका विविध स्वरूपको अभ्यासमा सक्षम बनाउने,
- छपाइ शुद्धिका चिह्नको प्रयोग गरी भाषा सम्पादनको मस्यौदा निर्माण, त्यसको परिमार्जन र प्रस्तुति क्षमता बढाउने ।

३. विशिष्ट उद्देश्य एवम् पाठ्यविषय

विशिष्ट उद्देश्य	पाठ्यविषय
• लिखित अभिव्यक्ति र मौखिक अभिव्यक्तिको भिन्नता छुट्याउन, • लिखित अभिव्यक्तिका व्यावहारिक, सृजनात्मक, प्राज्ञिक र सम्पादनात्मक प्रकारको परिचय दिन, • अनुच्छेद लेखनका संरचनात्मक (आदि, मध्य र अन्त्य) ढाँचासँग परिचित भई विभिन्न प्रकारका अनुच्छेद रचना गर्न, • अनुच्छेदमा व्याकरणिक र कोशीय संसक्तिका विविध पक्षको प्रयोग गर्न, • संसक्तिका दृष्टिले विभिन्न प्रकृतिका	**एकाइ एक : लिखित अभिव्यक्ति (१०)** १.१ लिखित अभिव्यक्ति र मौखिक अभिव्यक्ति १.२ लिखित अभिव्यक्तिका प्रकार १.२.१ व्यावहारिक अभिव्यक्ति १.२.२ सृजनात्मक अभिव्यक्ति १.२.३ प्राज्ञिक अभिव्यक्ति १.२.४ सम्पादनात्मक अभिव्यक्ति १.३ अनुच्छेद लेखन १.३.१ अनुच्छेदको परिचय १.३.२ अनुच्छेदको संरचना १.३.३ अनुच्छेदका प्रकार १.४ सङ्कथनमा संसक्ति व्यवस्था

अनुच्छेदको भाषिक संशोधन र सम्पादन सिपको क्षमता विकास गर्न ।	१.४.१ व्याकरणिक संसक्ति १.५.२ कोशीय संसक्ति १.५.३ संसक्तिका दृष्टिले विभिन्न प्रकृतिका अनुच्छेदको भाषिक संशोधन र सम्पादनको अभ्यास
• भाषा सम्पादनको अर्थ र परिभाषा बताउन, • भाषा सम्पादनको प्रयोजन र महŒव निर्धारण गर्न, • भाषा सम्पादकमा अन्तर्निहित गुणको वर्णन गर्न, • पाण्डुलिपि लेखन, संशोधन (प्रुफ) र भाषा सम्पादनको भिन्नता औंल्याउन, • भाषा सम्पादनका लिखित, मौखिक र चित्रात्मक स्वरूप पहिचान गर्न, • भाषा सम्पादनका विविध प्रकारका विशेषता वर्णन गर्न ।	**एकाइ दुई : भाषा सम्पादनको सैद्धान्तिक परिचय (१०)** २.१ भाषा सम्पादनको अर्थ र परिभाषा २.२ भाषा सम्पादनको प्रयोजन र महŒव २.३ भाषा सम्पादकमा अन्तर्निहित गुण २.४ पाण्डुलिपि लेखन, भाषा संशोधन र भाषा सम्पादन २.५ भाषा सम्पादनको स्वरूप २.५.१ लिखित सामग्री सम्पादन २.५.२ मौखिक सामग्री सम्पादन २.५.३ चित्र सम्पादन २.६ भाषा सम्पादनका प्रकारहरू २.६.१ भाषा सम्पादन २.६.२ संरचना सम्पादन २.६.३ विषयवस्तु सम्पादन २.६४ विकासात्मक सम्पादन
• भाषा सम्पादनका आधारभूत पक्षको परिचय दिन, • विधा, विषयवस्तु, विचार, भाव र संरचना अनुरूपताका आधारमा शब्दचयन गरी पाण्डुलिपि सम्पादन गर्न, • व्याकरणात्मक र आलङ्कारिक संरचना केलाई तदनुरूप वाक्यरचना सम्पादन गर्न, • वैचारिक एकरूपता र प्रवाह, क्रमिकता, पूर्वापर सङ्गति, स्वीकार्यता आदिमा सङ्कथनात्मक सचेतता अँगाली पाण्डुलिपिको भाषा सम्पादन गर्न, • वर्णविन्यास, लेख्यचिह्न, शैली र	**एकाइ तीन : भाषा सम्पादनका आधारभूत पक्ष (१०)** ३.१ भाषा सम्पादनका आधारभूत पक्षको परिचय ३.२ शब्दचयन : शीर्षक, विधा, विषयवस्तु, विचार, भाव, संरचना अनुरूपता ३.३ वाक्यसंरचना : व्याकरणात्मक र आलङ्कारिक ३.४ सङ्कथनात्मक सचेतता : विचारको एकरूपता र प्रवाह, क्रमिकता र पूर्वापर सङ्गति, स्वीकार्यता र सूचनात्मकता, मौलिकता, तार्किता र स्पष्टता ३ ५ भाषिक परिष्कार : वर्णविन्यास, लेख्यचिह्न, शैली र ढाँचा ३.६ छपाइ शुद्धिका चिह्नको परिचय र प्रयोग : हटाउने र थप्ने, अनुच्छेद बदल्ने र गाभ्ने, पदयोग र पदवियोग गर्ने, तल, माथि, दायाँ र

ढाँचा (विधा र विषय) अनुकूल पाण्डुलिपिको भाषा सम्पादन गर्न, • छपाइ शुद्धिका निर्धारित चिह्नको प्रयोग गरी पाण्डुलिपिको भाषा सम्पादन गर्न ।	बायाँ लैजाने, स्पष्ट पार्ने, छड्के बनाउने र गाढा बनाउने, एकोहोरो र दोहोरो उद्धरण दिने ।
• भाषा सम्पादन प्रक्रियाको परिचय दिन, • चयनीय पाण्डुलिपिको गहन अध्ययन गरी सम्पादनका प्रकार र मानदण्ड निर्धारण गर्न, • पाण्डुलिपि सम्पादनका प्रारम्भिक पक्षका साथै निर्देशनात्मक टिपोट गर्न, • विषयवस्तु र पाठविन्यासका सहसम्बन्धका आधारमा पाण्डुलिपि सम्पादन गर्न, • वर्णविन्यास, लेख्यचिह्न र छपाइ शुद्धिका चिह्न प्रयोग गरी विभिन्न चरणमा पाण्डुलिपिको सम्पादन गर्न, • प्रकाशन योग्य पाण्डुलिपिका प्राविधिक पक्ष हेरी त्यसलाई अन्तिम रूप दिन, • कागजमा छापिएपछि पनि छुटेका भाषिक त्रुटि र क्याम्पसनको सूक्ष्म निरीक्षण गर्न ।	**एकाइ चार : भाषा सम्पादन प्रक्रिया (१०+९+१९)** ४.१ भाषा सम्पादन प्रक्रियाको परिचय ४.२ पाण्डुलिपि चयन ४.२.१ पाण्डुलिपिको गहन अध्ययन ४.२.२ सम्पादनको प्रकार निर्धारण ४.२.३ सम्पादनको मानदण्ड निर्माण ४.३ पाण्डुलिपिको प्रारम्भिक सम्पादन ४.३.१ प्रारम्भिक रेखाङ्कन : शब्द, वाक्य, चित्र आदि ४.३.२ निर्देशनात्मक टिपोट ४.४ विषयवस्तु र पाठविन्यासको सहसम्बन्ध संशोधन ४.४.१ विषय, विधा, शीर्षक, चित्र र शैलीको अनुकूलताको सम्पादन ४.४.२ दृष्टिविन्दु, छन्द, लय, विचलन, बिम्ब, प्रतीकको औचित्यका आधारमा सम्पादन ४.४.३ अनुच्छेदको क्रमिकता र पूर्णताको सम्पादन ४.५ भाषा संशोधन : ४.५.१ वर्णविन्यास र लेख्य चिह्नहरूको प्रयोग ४.५.२ छपाइ शुद्धिका चिह्नको उपयोग ४.६ प्रकाशन योग्य पाण्डुलिपि (प्रेस रेडी कपी) ४.६.१ पृष्ठाकार, अक्षराकार, शीर्षस्थान, स्थान, फोटो, चित्र (क्याप्सन) आदि सजावटको अन्तिम छनोट ४.६.२ भाषाको छुटपुट त्रुटिको अन्तिम संशोधन र आलेख तयारी ४.७ छपाइ अवस्थाको सम्पादन : छुटेका भाषिक त्रुटि र क्याप्सनको सूक्ष्म निरीक्षण
• एकल वा बहुसहपाठीद्वारा मस्यौदा समीक्षा गरी दिएका सुझावका आधारमा पाण्डुलिपि परिमार्जन गर्न, • प्रस्तुति ढाँचाको पालना गरी	**एकाइ पाँच : समीक्षा, परिमार्जन र प्रस्तुति** (८+७=१५) ५.१ सहपाठी सम्पादन र समीक्षा ५.१.१ सम्पादित पाण्डुलिपिको मस्यौदा कक्षामा

निर्धारित सङ्ख्या र पृष्ठमा पाण्डुलिपि सम्पादन गरी अन्तिम रूप दिन ।	प्रस्तुति ५.१.२ सम्पादित पाण्डुलिपिको मस्यौदामा सामूहिक समीक्षा ५.१.३ सामूहिक समीक्षाबाट प्राप्त संशोधनका प्रमुख बुँदा निर्धारण ५.१.४ सामूहिक समीक्षाबाट प्राप्त बुँदाका आधारमा पाण्डुलिपिको परिमार्जन ५.२ पाण्डुलिपि सम्पादन र प्रस्तुति ५.२.१ पाण्डुलिपि सम्पादनको प्रस्तुतिगत ढाँचाको पालना ५.२.२ निर्धारित सङ्ख्या र पृष्ठमा सम्पादित कृतिको प्रस्तुति

४. प्रायोगिक क्रियाकलाप र शिक्षण प्रविधि

प्रायोगिक क्रियाकलाप र शिक्षण प्रविधिलाई दुई समूहमा विभाजन गरिने छ :

१. साधारण शिक्षण प्रविधि २. विशिष्ट शिक्षण प्रविधि

४.१ साधारण शिक्षण प्रविधि

प्रत्येक एकाइमा आवश्यकताअनुसार शिक्षकद्वारा सम्बन्धित विषयवस्तुको प्रस्तुति, व्याख्यान, छलफल, प्रश्नोत्तर गराई विद्यार्थीहरूलाई तत्सम्बन्धी अभ्यास गर्न लगाइने छ ।

४.२ विशिष्ट शिक्षण प्रविधि

एकाइ	क्रियाकलाप
एक	• पालैपालो व्यक्ति विद्यार्थीलाई विषयक्षेत्रसँग सम्बद्ध अनुच्छेदको ढाँचा निर्माण गरी कक्षामा प्रस्तुत गर्न लगाउने र बाँकी विद्यार्थीलाई कक्षामा प्रस्तुत गरिएको अनुच्छेदमा व्याकरणिक र कोशीय संसक्ति खोज्न प्रोत्साहित गर्ने,
दुई	• एउटा समूहलाई भाषा सम्पादनको स्वरूपका विशेषता र अर्को समूहलाई भाषा सम्पादनका विभिन्न भेदका विशेषता निर्धारण गर्न लगाउने,
तीन	• समूहगत रूपमा भाषा सम्पादनका आधारभूत पक्षहरूमध्ये विधा, विषयवस्तु, विचार, भाव, संरचना र शैलीअनुरूप पाण्डुलिपिको भाषा सम्पादन गर्न लगाउने, • विद्यार्थीलाई एकल वा समूहगत रूपमा त्रुटिपूर्ण अनुच्छेद दिई त्यसमा छपाइ शुद्धिका चिह्न प्रयोग गरी भाषा सम्पादन गर्न प्रेरित गर्ने,
चार	• तोकिएका कृतिको गहन अध्ययन गरी त्यसका वर्णविन्यास, लेख्यचिह्न, शैली र ढाँचा सम्पादन गर्न प्रोत्साहित गर्ने, • कृतिभित्र रहेका त्रुटि निराकरणका लागि छपाइ शुद्धिका चिह्न प्रयोग गरी भाषा संशोधन गर्न लगाउने,
पाँच	• व्यक्तिगत वा सामूहिक रूपमा निर्धारित कृतिको मस्यौदा समीक्षा गराई त्यसलाई परिमार्जन गर्न अभिप्रेरित गर्ने,

	• प्रयोगात्मक परीक्षाका लागि वैयक्तिक रूपमा निर्धारित कृति सम्पादन गरी प्रस्तुत गर्न लगाउने ।

५. मूल्याङ्कन प्रक्रिया

मूल्याङ्कन दुई प्रकारले गरिने छ :

(१) **आन्तरिक मूल्याङ्कन** : यसका निम्ति चालिस प्रतिशत अङ्क निर्धारण गरिएको छ । आन्तरिक मूल्याङ्कन कक्षा शिक्षणसँगै गरिने छ । यसको वितरण निम्नानुसार रहेको छ :

आन्तरिक मूल्याङ्कन (४० प्रतिशत)

क्र.सं.	क्रियाकलाप	अङ्क
१	उपस्थिति	५
२	सिकाइ क्रियाकलापमा सहभागिता	५
३	पहिलो आन्तरिक परीक्षा	१०
४	दोस्रो आन्तरिक परीक्षा	१०
५	तेस्रो आन्तरिक परीक्षा	१०
जम्मा		**४०**

उपस्थिति र कक्षा सहभागिता

(क) सेमेस्टर प्रणालीमा ८० प्रतिशत उपस्थिति अनिवार्य हुने छ । ९० प्रतिशतसम्म उपस्थिति हुने विद्यार्थीलाई ४ अङ्क र ९० प्रतिशतभन्दा माथि उपस्थित हुने विद्यार्थीलाई ५ अङ्क प्रदान गरिने छ ।

(ख) कक्षा सहभागिताको ५ अङ्कमध्ये सम्बन्धित विषय शिक्षकले विद्यार्थीको कक्षा कार्यकलाप मूल्याङ्कन गरी अङ्क प्रदान गर्ने छन् ।

आन्तरिक मूल्याङ्कन प्रक्रिया

(क) पहिलो आन्तरिक परीक्षाका लागि विषय शिक्षकले अध्ययनपत्र लेखन, पुस्तक समीक्षा, लेख पुनरावलोकन, कुनै विषय शीर्षक केन्द्रित अध्ययनपत्र तयारी, ज्ञान/प्रतिभा परीक्षणमध्ये भाषा सम्पादन प्रक्रियासँग सम्बद्ध कुनै कार्य गर्न लगाउने छन् ।

(ख) दोस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले परियोजना कार्य, अवस्था/घटना अध्ययन, गोष्ठी, क्षेत्रकार्य, व्यक्तिगत वा समूहगत प्रतिवेदन लेखन, द्वितीयक स्रोत सामग्रीमा आधारित अध्ययनपत्र लेखन, पूर्वाध्ययन, पुनरावलोकन र अभिलेखीकरण आदिमध्ये भाषा सम्पादन प्रक्रियासँग सम्बद्ध कुनै कार्य गर्न लगाउने छन् ।

(ग) तेस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले आन्तरिक सुधार परीक्षाका रूपमा ६० पूर्णाङ्कको लिखित परीक्षा लिने छन् ।

(घ) जतिसुकै पूर्णाङ्कमा परीक्षा लिएको भए पनि विषय शिक्षकले अन्त्यमा प्रत्येक आन्तरिक परीक्षालाई १० पूर्णाङ्कमा रूपान्तर गर्ने छन् ।

(ङ) आन्तरिक मूल्याङ्कन प्रक्रियामा अनुपस्थित वा अनुत्तीर्ण विद्यार्थी बाह्यपरीक्षाका लागि स्वत: अयोग्य हुने छ ।

(२) **बाह्य मूल्याङ्कन** : यसका निम्ति साठी प्रतिशत अङ्क निर्धारण गरिएको छ । बाह्य मूल्याङ्कन डिन कार्यालयले निर्धारण गरेको सेमेस्टर प्रणालीअनुसार हुने छ । यसका लागि

निम्नानुसारको प्रश्नयोजना रहेको छ । १ क्रेडिट आवरको प्रयोगात्मक परीक्षाका निम्ति चार र पाँच एकाइको उपयोग गरिने छ ।

बाह्य परीक्षा (६० प्रतिशत)

क्र.सं.	**परीक्षाको किसिम**	**प्रश्नको किसिम**	**अङ्क**
१	सैद्धान्तिक	वस्तुगत प्रश्न (१०×१ . १०)	१०
२	सैद्धान्तिक	विषयगत प्रश्न (६× ५ . ३०) (कुनै दुईवटा प्रश्नमा अथवा)	३०
३	प्रयोगात्मक	आन्तरिक परीक्षक ५ बाह्य परीक्षक १५ (२०)	२०
जम्मा			**६०**

प्रयोगात्मक कार्यकलापका लागि विद्यार्थीले कृति छनोट, पठन, प्रारम्भिक सम्पादन, भाषा संशोधन, प्रेस रेडी कपी र भाषिक शुद्धता कायम गरी तोकिएको ढाँचामा कम्तीमा २५ पृष्ठ हुने गरी रङ्गीन गाता र पाठको आवश्यकताअनुसार चित्र, नक्सा आदि समेत भएको सम्पादित कृति समीक्षात्मक रूपमा कम्प्युटर टङ्कण गरी विभागमा प्रस्तुत गर्नुपर्ने छ । यस्तो सामग्रीको मूल्याङ्कन त्रि.वि. शिक्षाशास्त्र सङ्काय, डिनको कार्यालयद्वारा निर्धारण गरिएको नियमअनुसार हुने छ ।

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तह : एम. एड. जम्मा पाठघन्टी : ४८
सेमेस्टर : चौथो

१. पाठयांश परिचय

यस पाठ्यांशमा दिइएका पाठ्यवस्तुबाट ऐतिहासिक भाषाविज्ञान, भाषिक वर्गीकरण र भारोपेली भाषापरिवार, नेपाली भाषाको उत्पत्ति र विकासक्रम, नेपालमा बोलिने विभिन्न भाषा परिवारका भाषासहित भाषिक परिवर्तनका विविध पक्षको जानकारी गराउने अपेक्षा गरिएको छ । यो पाठ्यांश मूलतः पाँच एकाइमा विभाजित छ । यसमा ऐतिहासिक भाषाविज्ञानको परिचय, संसारका भाषाको पारिवारिक वर्गीकरण, नेपाली भाषाको उत्पत्ति र विकासक्रम, नेपालमा बोलिने भाषापरिवार र तिनका वक्ता, क्षेत्र आदिको जानकारीका साथै भाषिक परिवर्तनसँग सम्बद्ध विषयवस्तु राखिएका छन् ।

२. साधारण उद्देश्य

यस पाठ्यांशका साधारण उद्देश्यहरू यसप्रकार छन् :

- ऐतिहासिक भाषाविज्ञानका विभिन्न पक्षको जानकारी गराउने,
- संसारका भाषाको पारिवारिक वर्गीकरण गर्ने आधारसँग परिचित बनाउने,
- भारोपेली भाषापरिवारको विकासक्रम र महत्त्वका बारेमा वर्णन गर्न सक्ने तुल्याउने,
- नेपालका भाषा तथा नेपाली भाषाका भाषिकाको परिचय दिन सक्ने क्षमता अभिवृद्धि गराउने,
- नेपालमा बोलिने विभिन्न परिवारका प्रमुख भाषासँग परिचित गराउने र
- भाषिक परिवर्तन र त्यससँग सम्बन्धित विविध पक्षको उपयुक्तता पहिल्याउन लगाउने ।

३. विशिष्ट उद्देश्य तथा पाठ्यविषय

विशिष्ट उद्देश्य	पाठ्यविषय
• ऐतिहासिक भाषाविज्ञानको परिचय दिन, • ऐतिहासिक भाषाविज्ञानको क्षेत्र र सीमा औंल्याउन, • ऐतिहासिक भाषाविज्ञानका पूर्वीय, पाश्चात्य र समग्र उपलब्धिको वर्णन गर्न, • ऐतिहासिक भाषाविज्ञान र तुलनात्मक भाषाविज्ञानको सम्बन्ध स्पष्ट पार्न, • ऐतिहासिक पद्धतिका आधारमा भाषिक पुनर्निर्माण प्रक्रिया ठम्याउन ।	**एकाइ एक : ऐतिहासिक भाषाविज्ञान** (८) १.१ ऐतिहासिक भाषाविज्ञानको परिचय १.२ ऐतिहासिक भाषाविज्ञानको क्षेत्र र सीमा १.३ ऐतिहासिक भाषाविज्ञानका उपलब्धि १.३.१ भाषिक अध्ययनको पूर्वीय उपलब्धि १.३.२ भाषिक अध्ययनको पाश्चात्य उपलब्धि १.३.३ ऐतिहासिक भाषाविज्ञानको समग्र उपलब्धि १.४ ऐतिहासिक र तुलनात्मक भाषाविज्ञानको सम्बन्ध १.५ भाषाको ऐतिहासिक अध्ययन पद्धति १.५.१ बाह्य पुनर्निर्माण १.५.२ आन्तरिक पुनर्निर्माण
• पारिवारिक र संरचनात्मक आधारमा संसारका भाषाको वर्गीकरण प्रक्रिया	**एकाइ दुई : संसारका भाषाको वर्गीकरण** (८) २.१ भाषाको पारिवारिक तथा संरचनात्मक वर्गीकरणका

विशिष्ट उद्देश्य	पाठ्यविषय
बताउन, • संसारका प्रमुख भाषापरिवारको परिचय दिन, • भारोपेली परिवारको नामकरण, सतम र केन्तुम वर्गीकरणका आधारसहित प्रमुख भाषाको परिचय दिन, • आर्यभाषा र यसको विकासक्रमको स्वरूप र प्रवृत्ति औंल्याउन, • आधुनिक आर्यभाषा र नेपाली भाषाको सम्बन्ध निर्धारण गर्न ।	आधारहरू २.१.१ पारिवारिक वर्गीकरण २.१.२ संरचनात्मक वा आकृतिमूलक वर्गीकरण २.२ संसारका प्रमुख भाषापरिवार २.३ भारोपेली परिवार २.३.१ भारोपेली परिवारको नामकरण २.३.२ भारोपेली परिवारको समय र मूल प्रयोक्ता २.३.३ भारोपेली परिवारका भाषाको वर्गीकरण २.३.४ केन्तुम् वर्गका भाषाहरू २.३.५ सतम् वर्गका भाषाहरू २.३.६ आर्यभाषा र यसको विकासक्रम २.३.७ आधुनिक आर्यभाषा र नेपाली भाषा
• नेपाली भाषाको परिचय दिन, • नेपाली भाषाको उत्पत्तिका सम्बन्धमा स्वदेशी र विदेशी विद्वान्का मतको चर्चा गर्न, • प्राचीन, मध्यकालीन र आधुनिक नेपाली भाषा र तिनका विशेषता ठम्याउन, • भाषा र भाषिकाको अन्तर छुट्याई नेपालीका क्षेत्रीय र सामाजिक भाषिकाका विशेषता निर्धारण गर्न ।	**एकाइ तीन : नेपाली भाषाको उत्पत्ति र विकासक्रम** (१२) ३.१ नेपाली भाषाको परिचय ३.२ नेपाली भाषाको उत्पत्तिसम्बन्धी मतमतान्तर ३.२.१ विदेशी विद्वान्का मतहरू ३.२.२ स्वदेशी विद्वान्का मतहरू ३.३ नेपाली भाषाको विकासक्रम ३.३.१ प्राचीन नेपाली भाषा र त्यसका विशेषता ३.३.२ मध्यकालीन नेपाली भाषा र त्यसका विशेषता ३.३.३ आधुनिक नेपाली भाषा र त्यसका विशेषता ३.४ नेपालीका भाषिका र तिनका विशेषता ३.४.१ भाषा र भाषिका ३.४.२ नेपाली भाषाका क्षेत्रीय भाषिकाका विशेषता ३.४.३ नेपाली भाषाका सामाजिक भाषिकाका विशेषता
• नेपालमा बोलिने भारोपेली परिवारका भाषाहरूको परिचय दिन, • नेपालमा बोलिने भोटचिनियाँ परिवारका भाषाहरूको जानकारी दिन, • नेपालमा बोलिने आग्नेली, द्रबिडेली र एकल परिवारका भाषाको वर्णन गर्न, • उल्लिखित भाषा परिवारभित्रका प्रमुख	**एकाइ चार : नेपालमा बोलिने भाषा परिवारहरू (१०)** ४.१ नेपालमा बोलिने भारोपेली परिवारका भाषाहरू ४.२ नेपालमा बोलिने भोटचिनियाँ परिवारका भाषाहरू ४.३ नेपालमा बोलिने आग्नेली परिवारको भाषा ४.४ नेपालमा बोलिने द्रबिड परिवारको भाषा ४.५ नेपालमा बोलिने एकल परिवारको भाषा

विशिष्ट उद्देश्य	पाठ्यविषय
भाषाका वक्ता, क्षेत्र, शिक्षा, सञ्चार, व्याकरण, कोश आदिको स्थिति तथा उपलब्धिको सङ्क्षिप्त परिचय दिन ।	४.६ उल्लिखित भाषापरिवारभित्रका प्रमुख भाषाका वक्ता, क्षेत्र, शिक्षा, सञ्चार, व्याकरण, कोश आदिको अवस्था तथा उपलब्धिको सङ्क्षिप्त परिचय
• भाषिक परिवर्तनको परिचय दिन, • भाषिक परिवर्तनका प्रकार बताउन, • ध्वनिपरिवर्तनका कारण र दिशा बताउन, • रूपात्मक परिवर्तनको प्रक्रिया बताउन, • वाक्यात्मक परिवर्तनका कारण स्पष्ट पार्न, • अर्थगत परिवर्तनका सम्भावना औंल्याउन, • भाषिक भूगोल, आगमन, पिजिन र क्रेओलका विशेषता ठम्याउन, • भाषिक मृत्युको प्रक्रिया निर्धारण गर्न ।	**एकाइ पाँच : भाषिक परिवर्तन (१०)** ५.१ भाषिक परिवर्तनको परिचय ५.२ भाषिक परिवर्तनका प्रकार ५.३ ध्वनिपरिवर्तन (कारण र दिशा) ५.४ रूपात्मक परिवर्तन ५.५ वाक्यात्मक परिवर्तन ५.६ अर्थगत परिवर्तन ५.७ भाषिक भूगोल र भाषिक आगमन ५.८ भाषिक सम्मिलन : पिजिन र क्रेओल ५.९ भाषिक मृत्यु

४. प्रायोगिक क्रियाकलाप र शिक्षण प्रविधि

प्रायोगिक क्रियाकलाप र शिक्षण प्रविधिलाई दुई समूहमा विभाजन गरिने छ :

१. साधारण शिक्षण प्रविधि २. विशिष्ट शिक्षण प्रविधि

४.१ साधारण शिक्षण प्रविधि

प्रत्येक एकाइमा आवश्यकताअनुसार शिक्षकद्वारा सम्बन्धित विषयवस्तुको प्रस्तुति, व्याख्यान, छलफल, प्रश्नोत्तर गराई विद्यार्थीहरूलाई तत्सम्बन्धी अभ्यास गर्न लगाइने छ ।

४.२ विशिष्ट शिक्षण प्रविधि

एकाइ	क्रियाकलाप
एक	• ऐतिहासिक भाषाविज्ञानका पूर्वीय, पाश्चात्य र समग्र उपलब्धिबारे समूह कार्य दिई कक्षामा प्रस्तुत गर्न लगाउने,
दुई	• समूहगत रूपमा संसारका प्रमुख भाषापरिवारको उत्तर टिपोट गर्न लगाई कक्षामा प्रस्तुत गर्न लगाउने र एकअर्का समूहबिच छलफल गराउने,
तीन	• व्यक्तिगत रूपमा नेपाली भाषाको विकासक्रमको रूपरेखा गृहकार्यका रूपमा तयार गरी कक्षामा प्रस्तुत गर्न लगाउने, • ससाना समूहमा नेपाली भाषाका विभिन्न क्षेत्रीय भाषिकाका सामाजिक भेदहरूका शब्द, पदावली र वाक्य तहका उदाहरण सङ्कलन गरी कक्षामा प्रस्तुत गर्न लगाउने,
चार	• नेपालमा बोलिने विभिन्न भाषापरिवारका भाषाका बारेमा समूहगत रूपमा सङ्क्षिप्त सेमिनार पत्र तयार गरी कक्षामा प्रस्तुत गर्न लगाउने,
पाँच	• विद्यार्थीले एकल रूपमा टिपेका भाषिक परिवर्तनसम्बन्धी तथ्यलाई कक्षामा

	प्रस्तुत गर्न लगाई परस्परमा छलफल गराउने ।

५. मूल्याङ्कन प्रक्रिया

मूल्याङ्कन दुई प्रकारले गरिने छ :

(१) आन्तरिक मूल्याङ्कन : यसका निम्ति चालिस प्रतिशत अङ्क निर्धारण गरिएको छ । आन्तरिक मूल्याङ्कन कक्षा शिक्षणसँगै गरिने छ । यसको वितरण निम्नानुसार रहेको छ :

आन्तरिक मूल्याङ्कन (४० प्रतिशत)

क्र.सं.	ीक्रयाकलाप	अङ्क
१	उपस्थिति	५
२	सिकाइ क्रियाकलापमा सहभागिता	५
३	पहिलो आन्तरिक परीक्षा	१०
४	दोस्रो आन्तरिक परीक्षा	१०
५	तेस्रो आन्तरिक परीक्षा	१०
जम्मा		**४०**

उपस्थिति र कक्षा सहभागिता

(क) सेमेस्टर प्रणालीमा ८० प्रतिशत उपस्थिति अनिवार्य हुने छ । ९० प्रतिशतसम्म उपस्थिति हुने विद्यार्थीलाई ४ अङ्क र ९० प्रतिशतभन्दा माथि उपस्थित हुने विद्यार्थीलाई ५ अङ्क प्रदान गरिने छ ।

(ख) कक्षा सहभागिताको ५ अङ्कमध्ये सम्बन्धित विषय शिक्षकले विद्यार्थीको कक्षा कार्यकलाप मूल्याङ्कन गरी अङ्क प्रदान गर्ने छन् ।

आन्तरिक मूल्याङ्कन प्रक्रिया

(क) पहिलो आन्तरिक परीक्षाका लागि विषय शिक्षकले अध्ययनपत्र लेखन, पुस्तक समीक्षा, लेख पुनरावलोकन, कुनै विषय शीर्षक केन्द्रित अध्ययनपत्र तयारी, ज्ञान/प्रतिभा परीक्षणमध्ये कुनै कार्य गर्न लगाउने छन् ।

(ख) दोस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले परियोजना कार्य, अवस्था/घटना अध्ययन, गोष्ठी, क्षेत्रकार्य, व्यक्तिगत वा समूहगत प्रतिवेदन लेखन, द्वितीय स्रोत सामग्रीमा आधारित अध्ययनपत्र लेखन, पूर्वाध्ययन, पुनरावलोकन र अभिलेखीकरण आदिमध्ये कुनै कार्य गर्न लगाउने छन् ।

(ग) तेस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले आन्तरिक सुधार परीक्षाका रूपमा ६० पूर्णाङ्ककको लिखित परीक्षा लिने छन् ।

(घ) जतिसुकै पूर्णाङ्कमा परीक्षा लिएको भए पनि विषय शिक्षकले अन्त्यमा प्रत्येक आन्तरिक परीक्षालाई १० पूर्णाङ्कमा रूपान्तर गर्ने छन् ।

(ङ) आन्तरिक मूल्याङ्कन प्रक्रियामा अनुपस्थित वा अनुत्तीर्ण विद्यार्थी बाह्यपरीक्षाका लागि स्वतःअयोग्य हुने छ ।

२. बाह्य मूल्याङ्कन

बाह्य मूल्याङ्कनका लागि ६०% अङ्कभार छुट्याइएको छ । उक्त मूल्याङ्कनका लागि त्रि.वि. शिक्षाशास्त्र सङ्काय, डिनको कार्यालयद्वारा सत्रान्तमा परीक्षा लिइने छ । सो परीक्षामा सोधिने प्रश्नको प्रकृति, ढाँचा र त्यसको अङ्कभार निम्नानुसार हुने छ :

प्रश्नको प्रकृति	सोधिने प्रश्न सङ्ख्या	उत्तर दिनुपर्ने प्रश्न सङ्ख्या	प्रतिप्रश्न छुट्याइएको अङ्क	पूर्णाङ्क
समूह 'क' : बहुवैकल्पिक प्रश्न	१०	१०	१	१०
समूह 'ख' : छोटो उत्तर आउने प्रश्न	६ (कुनै दुईवटा प्रश्नमा अथवा)	६	५	३०
समूह 'ग' : लामो उत्तर आउने प्रश्न	२ (कुनै एउटा प्रश्नमा अथवा)	२	१०	२०

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तह : एम. एड. जम्मा पाठघन्टी : ४८
सेमेस्टर : चौथो

१. पाठयांश परिचय

प्रस्तुत पाठ्यांश कोशविज्ञानसम्बन्धी ज्ञान र सिपको विकास गर्ने उद्देश्यले तयार पारिएको हो । यस पाठ्यांशमा जम्मा पाँच एकाइ छन् । यीमध्ये कोशको परिचय र वर्गीकरण, कोशविज्ञान र अन्य विषयसँग यसको सम्बन्ध, कोशनिर्माण परम्परा, कोशसम्पादन योजना र प्रक्रिया तथा कोशसम्पादनका समस्याजस्ता विषयवस्तु समावेश गरिएका छन् ।

२. साधारण उद्देश्य

यस पाठ्यांशका साधारण उद्देश्यहरू यसप्रकार छन् :

- कोशको परिचय, प्रयोजन र वर्गीकरण गर्न सक्षम बनाउने,
- कोशविज्ञानको परिचय दिई कोशविज्ञानसम्बन्धी आधारभूत अवधारणा प्रस्तुत गर्न सक्षम तुल्याउने,
- कोशविज्ञान र अन्य विषयका बिचको सम्बन्ध निर्धारण गर्ने सिप आर्जन गर्न लगाउने,
- पूर्वीय र पाश्चात्यका साथै नेपाली कोशनिर्माण परम्पराको रूपरेखा औंल्याउन सक्षम बनाउने, ,
- कोशसम्पादनको योजना र प्रक्रियासहित कोशमा समावेश गरिने सामग्रीको जानकारी गराउने,
- कोशनिर्माणका समस्या पहिचान गराई एकभाषी, द्विभाषी र बहुभाषी कोशका समस्या औंल्याउने क्षमता बढाउने ।

३. विशिष्ट उद्देश्य तथा पाठ्यविषय

विशिष्ट उद्देश्य	पाठ्यविषय
• कोशको परिचय दिई यसको प्रयोजन बताउन, • कोशवर्गीकरणका आधारहरू प्रस्तुत गर्न, • विश्वकोश र शब्दकोशका बिचको अन्तर छुट्याउन, • प्राचीन र आधुनिक शब्दकोशको तुलना गर्न ।	**एकाइ एक : कोशको परिचय र वर्गीकरण** (६) १.१ कोशको परिचय १.२ कोशको प्रयोजन १.३ कोशवर्गीकरणका आधारहरू १.४ विश्वकोश र शब्दकोशका बिचको अन्तर १.५ प्राचीन र आधुनिक शब्दकोशको तुलना
• कोशविज्ञानको आधारभूत परिचय दिन, • कोशविधान शास्त्र र कोशविधान विज्ञानको अन्तर छटुयाउन, • कोशविज्ञानको उपयोगिता प्रस्तुत गर्न, • अन्य विषयसँग कोशविज्ञानको सम्बन्ध औंल्याउन ।	**एकाइ दुई : कोशविज्ञान र अन्य विषयसँग यसको सम्बन्ध** (९) २.१ कोशविज्ञानको आधारभूत परिचय २.१.१ कोशविधान शास्त्र २.१.२ कोशविधान विज्ञान

विशिष्ट उद्देश्य	पाठ्यविषय
	२.२ कोशविज्ञानको उपयोगिता २.३ अन्य विषयसँग कोशविज्ञानको सम्बन्ध २.३.१ भाषाविज्ञान २.३.२ व्याकरण २.३.३ साहित्य २.३.४ भूगोल २.३.५ समाजविज्ञान २.३.६ शिक्षाशास्त्र २.३.७ भाषाशिक्षण
• पूर्वीय र पाश्चात्य कोशनिर्माण परम्पराको रूपरेखा निर्धारण गर्न , • एकभाषी, द्विभाषी र बहुभाषी नेपाली कोशनिर्माणको परम्परा प्रस्तुत गर्न, • नेपाली भाषा र नेपालका भाषाको कोशनिर्माणको स्थिति औंल्याउन ।	**एकाइ तीन : कोशनिर्माण परम्परा** (१०) ३.१ पूर्वीय कोशनिर्माण परम्परा ३.२ पश्चिमी कोशनिर्माण परम्परा ३.३ नेपाली कोशको विकासक्रम ३.३.१ नेपाली कोशनिर्माणको पृष्ठभूमि ३.३.२ नेपाली एकभाषी कोशनिर्माण परम्परा ३.३.३ नेपाली द्विभाषी कोशनिर्माण परम्परा ३.३.४ नेपाली बहुभाषी कोशको निर्माण परम्परा ३.४ नेपाली भाषा र नेपालका भाषाको कोशनिर्माणको स्थिति
• कोशसम्पादनको योजना निर्माण गर्न, • कोशसम्पादनका लागि सामग्री सङ्कलनको स्रोत र पद्धति निर्धारण गर्न, • कोशको पूर्वभाग, मूल भाग र उत्तर भागको चिनारी गराउन, • कोशसम्पादनका प्रथम, द्वितीय र तृतीय चरणका प्रक्रियाको कार्य बताउन, • विद्यालय तहको कुनै पाठ्यपुस्तक/विधा / पाठ छनोट गरी नमुना कोशनिर्माण गर्न ।	**एकाइ चार : कोशसम्पादन योजना र प्रक्रिया** (१५) ४.१ कोशसम्पादन योजना ४.२ सामग्री सङ्कलनका स्रोत र पद्धति ४.३ कोशको स्वरूप ४.३.१ पूर्व भाग ४.३.२ मूल भाग ४.३.३ उत्तर भाग ४.४ कोशसम्पादनका प्रक्रिया ४.४.१ प्रथम चरण : प्रविष्टि चयन र निर्धारण ४.४.२ द्वितीय चरण : प्रविष्टि विधान, शीर्षशब्दको स्वरूप, वर्णविन्यास, उच्चारण, स्रोत, व्युत्पत्ति, व्याकरण निर्देशन तथा अर्थविधानका विविध तरिकाको प्रस्तुति ४.४.३ तृतीय चरण : प्रविष्टि अनुक्रम विन्यास, चिह्न प्रयोग, पूर्वापर समन्वय र संयोजन ४.५ नमुना कोशनिर्माण (विद्यालयको तहको कुनै

विशिष्ट उद्देश्य	पाठ्यविषय
	पाठ्यपुस्तक/विधा/पाठमा आधारित)
• कोशसम्पादनसम्बन्धी समस्याका प्रमुख क्षेत्रहरू पहिचान गर्न, • एकभाषी कोश, द्विभाषी कोश र बहुभाषी कोशसम्पादनका समस्या औंल्याउन ।	**एकाइ पाँच : कोशसम्पादनका समस्या (८)** ५.१ कोशसम्पादन समस्याका प्रमुख क्षेत्र ५.१.१ सामग्री सङ्कलन ५.१.२ प्रविष्टि चयन ५.१.३ अनुक्रम व्यवस्था ५.१.४ वर्णविन्यास (हिज्जे) व्यवस्था ५.१.५ मानक उच्चारण ५.१.६ प्रविष्टि विधान ५.१.७ अर्थविधान ५.२ एकभाषी कोशका समस्या ५.३ द्विभाषीकोशका समस्या ५.४ बहुभाषी कोशका समस्या

४. प्रायोगिक क्रियाकलाप र शिक्षण प्रविधि

प्रायोगिक क्रियाकलाप र शिक्षण प्रविधिलाई दुई समूहमा विभाजन गरिने छ :

१. साधारण शिक्षण प्रविधि २. विशिष्ट शिक्षण प्रविधि ।

४.१ साधारण शिक्षण प्रविधि

प्रत्येक एकाइमा आवश्यकताअनुसार शिक्षकद्वारा सम्बन्धित विषयवस्तुको प्रस्तुति, व्याख्यान, छलफल, प्रश्नोत्तर गराई विद्यार्थीहरूलाई तत्सम्बन्धी अभ्यास गर्न लगाइने छ ।

४.२ विशिष्ट शिक्षण प्रविधि

एकाइ	ीक्रयाकलाप
एक	• जोडी समूहमा विश्वकोश र शब्दकोशका बिचको अन्तर पहिल्याई प्राचीन र आधुनिक कोशको तुलना गर्न लगाउने,
दुई	• सामूहिक रूपमा अन्य विषयसँग कोशविज्ञानको सम्बन्धबारे एकएक अनुच्छेद लेख्न लगाई कक्षामा प्रस्तुत गराउने,
तिन	• ससाना समूहमा एकाइ तीनका उपशीर्षकहरूमा आधारित भई सङ्क्षिप्त प्रकारका गोष्ठीपत्र तयार गरी कक्षामा प्रस्तुत गराई अर्को समूहले प्रस्तुत गरेको पत्रप्रति टिप्पणी गर्न लगाउने,
चार	• व्यक्तिगत रूपमा विद्यालय तहको कुनै पाठ्यपुस्तक/विधा/पाठमा आधारित भई २५० शब्द नघटाई नमुना कोशनिर्माण गर्न लगाउने,
पाँच	• जोडी समूहमा कोशसम्पादनसँग सम्बन्धित समस्याहरूको सूची बनाई कक्षामा प्रस्तुत गर्न लगाउने ।

५. मूल्याङ्कन प्रक्रिया

मूल्याङ्कन दुई प्रकारले गरिने छ :

(१) **आन्तरिक मूल्याङ्कन** : यसका निम्ति चालिस प्रतिशत अङ्क निर्धारण गरिएको छ । आन्तरिक मूल्याङ्कन कक्षा शिक्षणसँगै गरिने छ । यसको अङ्क वितरण योजना यसप्रकार हुने छ :

आन्तरिक मूल्याङ्कन (४० प्रतिशत)

क्र.सं.	क्रियाकलाप	अङ्क
१	उपस्थिति	५
२	सिकाइ क्रियाकलापमा सहभागिता	५
३	पहिलो आन्तरिक परीक्षा	१०
४	दोस्रो आन्तरिक परीक्षा	१०
५	तेस्रो आन्तरिक परीक्षा	१०
जम्मा		**४०**

उपस्थिति र कक्षा सहभागिता

(क) सेमेस्टर प्रणालीमा ८० प्रतिशत उपस्थिति अनिवार्य हुने छ । ९० प्रतिशतसम्म उपस्थिति हुने विद्यार्थीलाई ४ अङ्क र ९० प्रतिशतभन्दा माथि उपस्थित हुने विद्यार्थीलाई ५ अङ्क प्रदान गरिने छ ।

(ख) कक्षा सहभागिताको ५ अङ्कमध्ये सम्बन्धित विषय शिक्षकले विद्यार्थीको कक्षा कार्यकलाप मूल्याङ्कन गरी अङ्क प्रदान गर्ने छन् ।

आन्तरिक मूल्याङ्कन प्रक्रिया

(क) पहिलो आन्तरिक परीक्षाका लागि विषय शिक्षकले अध्ययनपत्र लेखन, पुस्तक समीक्षा, लेख पुनरावलोकन, कुनै विषय शीर्षक केन्द्रित अध्ययनपत्र तयारी, ज्ञान/प्रतिभा परीक्षणमध्ये कुनै कार्य गर्न लगाउने छन् ।

(ख) दोस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले परियोजना कार्य, अवस्था/घटना अध्ययन, गोष्ठी, क्षेत्रकार्य, व्यक्तिगत वा समूहगत प्रतिवेदन लेखन, द्वितीय स्रोत सामग्रीमा आधारित अध्ययनपत्र लेखन, पूर्वाध्ययन, पुनरावलोकन र अभिलेखीकरण आदिमध्ये कुनै कार्य गर्न लगाउने छन् ।

(ग) तेस्रो आन्तरिक परीक्षाका लागि विषय शिक्षकले आन्तरिक सुधार परीक्षाका रूपमा ६० पूर्णाङ्कको लिखित परीक्षा लिने छन् ।

(घ) जतिसुकै पूर्णाङ्कमा परीक्षा लिएको भए पनि विषय शिक्षकले अन्त्यमा प्रत्येक आन्तरिक परीक्षालाई १० पूर्णाङ्कमा रूपान्तर गर्ने छन् ।

(ङ) आन्तरिक मूल्याङ्कन प्रक्रियामा अनुपस्थित वा अनुत्तीर्ण विद्यार्थी बाह्यपरीक्षाका लागि स्वत: अयोग्य हुने छ ।

(२) **बाह्य मूल्याङ्कन**

बाह्य मूल्याङ्कनका लागि ६०% अङ्कभार छुट्याइएको छ । उक्त मूल्याङ्कनका लागि त्रि.वि. शिक्षाशास्त्र सङ्काय, डिनको कार्यालयद्वारा सत्रान्तमा परीक्षा लिइने छ । सो परीक्षामा सोधिने प्रश्नको प्रकृति, ढाँचा र त्यसको अङ्कभार निम्नानुसार हुने छ :

प्रश्नको प्रकृति	सोधिने प्रश्न सङ्ख्या	उत्तर दिनुपर्ने प्रश्न सङ्ख्या	प्रतिप्रश्न छुट्याइएको अङ्क	पूर्णाङ्क

समूह 'क' : बहुवैकल्पिक प्रश्न	१०	१०	१	१०
समूह 'ख' : छोटो उत्तर आउने प्रश्न	६ (कुनै दुईवटा प्रश्नमा अथवा)	६	५	३०
समूह 'ग' : लामो उत्तर आउने प्रश्न	२ (कुनै एउटा प्रश्नमा अथवा)	२	१०	२०

पाठ्यसामग्री

अधिकारी, हेमाङ्गराज (२०६५), *सामाजिक र प्रायोगिक भाषाविज्ञान,* रत्न पुस्तक भण्डार ।

कत्रे, एस.एम (सन् १९८०), *कोशविज्ञान,* (हिन्दी अनु. सरोजिनी शर्मा), केन्द्रीय हिन्दी संस्थान ।

जुगुस्ता र अन्य (सन्, १९०१), *म्यानुअल अफलेक्सिकोग्राफी,* मुटो ।

टर्नर, आर.एल. (सन्, १९३१), *ए कम्प्यारिटिभ एन्ड एरिमोलजिकल डिक्सनरी अफ नेपाली ल्याङ्ग्वेज,* लन्डन ।

ढकाल, शान्तिप्रसाद (२०६७), *प्रायोगिक भाषाविज्ञान,* शुभकामना प्रकाशन ।

तिवारी, भोलानाथ (सन्, १९७९), *कोशविज्ञान,* शब्दाकार ।

दाहाल, वल्लभमणि (२०३३), नेपाली भाषा र कोश, *नेपाली भाषा अधिगोष्ठी,* नेराप्रप्र. ।

पराजुली, कृष्णप्रसाद (२०६६), नेपाली उखान र गाउँखाने कथा, नेराप्रप्र ।

नेपाल प्रज्ञा-प्रतिष्ठान (२०७५), *नेपाली बृहत् शब्दकोश,* संशोधित, परिबर्धित दसौं संस्क., नेपाल प्रज्ञा-प्रतिष्ठान्न ।

भण्डारी, पारसमणि र अन्य (२०६७), *प्रायोगिक भाषाविज्ञानका प्रमुख आयाम,* विद्यार्थी पुस्तक भण्डार ।

यादव, योगेन्द्रप्रसाद र अन्य (सन्, १९९८), *लेक्सिकोग्राफी इन नेपाल,* नेराप्रप्र ।

रविन्सन, डि.एफ.एल. (सन्, १९६८), *म्यानुअल अफ बाइलिङ्गुअल डिक्सनरिज,* सि.आइ.एल ।

लैन्डव, एस.टी. (सन्, १९८५), *डिक्सनरिज : द आर्ट एन्ड क्राफ्ट अफ लेक्सिकोग्राफी,* सियुपी. ।

लम्साल, रामचन्द्र (२०५७), *कोशविज्ञान र नेपाली कोश,* शारदा लम्साल ।

सह, आर.ए. (सन्, १९८२), ऐन इन्ट्रोडक्सन टु लेक्सिकोग्राफी, सि.आइ.आइ.एल ।

P. Ed. 546: History of Physical Education and Games

Course No.: P. Ed. 546 (Elective) Nature of course: Theoretical
Level: M. Ed. Credit Hours: 3
Semester: Fourth Teaching hours: 48

1. Course Description

This course is designed to provide students the knowledge of the historical development of physical education and games. It is also designed to acquaint the students with the knowledge of national and international organizations involved in the development of games and sports. The course contents are of five units where the first three units are related to the history of physical education in some Asian and European countries along with the USA and the rest two units are concerned with national and international organizations involved in games and sports.

2. General Objectives

The general objectives of this course are as follows:

- To develop an understanding among the students about the historical aspects of physical education in selected Asian and European countries along with the USA.
- To acquaint the students with the knowledge of national and international organizations of physical education and games.

3. Specific Objectives and Content

Specific Objectives	Contents
• Explain the causes of the dark period in physical education. • Discuss Asceticism and Scholasticism as milestones for the development of physical education.	**Unit: I Review of Ancient period of physical education (10)** 1.1 (Primitive age to 5th. Century) Greece, Rome, Hindakush (Nepal, India) China, Egypt. 1.2 Middle Age (including Dark-age) and renaissance period of Physical Education (Period of 6th to 14th Century) 1.3 Causes of the dark period in physical education 1.3.1 Asceticism 1.3.2 Scholasticism 1.3.3 Cessation of Olympic
• Discuss the modern history of physical education in selected Western countries. • Describe the development of physical education in selected Asian countries.	**Unit: II Modern Age of Physical Education (8)** 2.1 Germany 2.2 Sweden 2.3 Denmark 2.4 China 2.5 India 2.6 Japan.
• Discuss the role of national organizations in promoting games and sports in Nepal. • Mention different sports	**Unit: III National Organizations and Activities of Sports** 3.1 Ministry of Education (CDC) 3.2 Ministry of Youth and Sports (Review; Structure,

competitions which are being organized at the school level and national level.	Act, and Policy) 3.3 National Sports Council 3.4 National Level Sports Competition 3.5 School-Level Sports (Birendra Shield, President Cup) 3.6 Some Popular Personalities in Physical Education and Sports
• Explain the history of sports competition at the international and global levels. • Discuss some international organizations of games and sports. • Describe the participation of Nepal in different international games.	**Unit: IV International Sports and Nepal's participation (15)** 4.1 Olympics: Winter, Summer, Paralympic, and Special Olympic 4.2 Asian games 4.3 SAG 4.4 Universiade 4.5 World Cup of selected games (Football, Cricket, Volleyball)

4. Instructional Techniques

4.1 General Instructional Techniques

The general instructional techniques to be used while teaching this course are as follows:

- Lecture cum discussion
- Demonstration
- Participation and practice
- Discussion and project work.
- Group work
- Library work.

4.2 Specific Instructional Techniques

Unit	Activity and Instructional Techniques
I	• The teacher will explain the causes of the dark period in physical education and games in its history.
II	• The students will be given reading materials to prepare papers on the historical development of physical education in different countries to present in the class.
III	• The teacher will conduct a seminar on the modern history of physical education in China, India, Japan, and South Korea. • Students will be asked to prepare papers regarding the seminar. • The teacher will facilitate the students differently.
IV	• The students will be sent to different organizations to collect information on their activities and they will be asked to present in the group.

V	• The teacher will provide different reading materials to the students and they will be asked to prepare notes on international organizations and the participation of Nepalese athletes in the international games. The students will present their notes in the class.

5. Evaluation

5.2 Internal evaluation 40%

Internal evaluation will be conducted by subject teachers based on the following activities:

SN	Particular	Marks
1	Attendance	5
2	Participation in learning activities	5
3	First assessment: Article review/ book review/ open book test/ unit test etc	10
4	Second assessment: Midterm test	10
5	Third assessment: Project work/survey/seminar/workshop/presentation	10
Total		**40**

5.2 External Examination (Final Examination) 60%

Examination Division, Office of the Dean, Faculty of Education will conduct the final examination at the end of the semester (proposed).

S.N	Types of question	Marks
1	Objective type question (Multiple choice 10x1 marks)	10
2	Short answer questions (6 with two OR questions x 5 marks)	30
3	Long answer questions (2 with one OR questions x 10 marks)	20
	Total	**60**

6. Recommended Books and References

Recommended Books

Hackensmith, C.W. (1966). ***History of physical education***. New York: Harper & Row Publishers. (Unit I to III)

Wuest, D. A., & Charles, A. B. (1992). ***Foundations of physical education and sport.*** New Delhi: B. I. Publications. (Unit I, II, III, and V)

References

Baruwal, H. B. (2041). ***Historical development of physical education and Nepal***. Kathmandu: Pinnacle Publication.

Baruwal, H. B., Shrestha, S. B., Bhatta Datta, T. D., Shrestha, M. K. & Poudel, T. R. (2075*).* ***Foundation of physical education.*** Kathmandu: Pinnacle Publication.

Sherchan, L. (2012). ***Foundations of physical education and sports.*** Kathmandu: Quest Publication.

Nepalese athletes in Olympic movement (2008). Kathmandu: Nepal Olympic Committee.

P. Ed. 547: Sociology of Sports

Course No. : P. Ed. 547 (Elective) Nature of course: Theoretical
Level: M. Ed. Credit hours: 3
Semester: Fourth Teaching hours: 48

1. Course Description

This course intends to provide knowledge on the sociology of sports. Particularly, the contents related to sports sociology, the linkage between social institutions and sports, women, and sports, linkage of social stratification with sports in society are respectively given in the five units.

2. General Objectives

The general objectives of this course are as follows:

- To equip the students with the knowledge of sports sociology.
- To develop the feeling of cooperation and competition among the students.

3. Specific Objectives and Content

3. Specific Objectives	4. Contents
• Describe sports sociology, its scope, and importance. • Discuss sports as a social phenomenon and an element of culture. • Delineate sport sociology as an academic discipline. • Explain the historical perspective of the sociology of sports. • Analyze the different sociological theories related to games and sports.	**Unit: I Sports Sociology (12)** 1.1 Concept of sports sociology 1.2 Scope and importance of sports sociology 1.3 Sports as a social phenomenon and an element of culture 1.4 Sports sociology as an academic discipline 1.5 Sociological exploration: Theories and paradigms 1.6 Application of ICT for Sports Globalization
• Explain social institutions in participation in games and sports. • Delineate the role of sports in socialization, regulating institutions, and religion.	**Unit: II Social Institutions and Sports (10)** 2.1 Role of Social Institutions in participation in games and sports 2.2 Socialization through Sports 2.3 Sports as regulating the institution of society. 2.4 Sports and Religion 2.5 Rise of Sports for Social Welfare
• Explain the meaning of leadership in physical education. • List the qualities of a leader. • Discuss the need and importance of leadership training in physical education.	**Unit: III Sports Leadership (8)** 3.1 Concept and characteristics of leadership 3.2 Qualities of a Leader 3.3 Leadership Training through Physical Education 3.4 Need and Importance of Leadership in Physical Education. 3.5 Geriatric Sports

	3.6 Women and children in sports
• Describe the meaning of social stratification and social class. • State the criteria for class distinctions • Discuss the effects of stratification on participation and achievement in sports. • Interpret democratization in sports.	**Unit: IV Sports and Social Stratification (10 hrs)** 5.1 Concept and nature of social class 5.2 Criteria of class distinctions 5.3 Concept of social stratification 5.4 Extent and effect of (racial and ethnic, gender, age, and socio-economic) stratification on participation and achievement in sports. 5.5 Democratization in Sports
• Explain the trends and analyze issues concerning sports in society.	**Unit: V Trends and Issues Concerning Sports in Society (8)** 6.1 Sports Aggression and Violence 6.2 Professional Sports 6.3 Sports Tourism 6.4 Sports Economy 6.5 Sports Politics 6.6 Sports Culture

4. Instructional Techniques

4.1 General Instructional Techniques

The general instructional techniques to be used while teaching this course are as follows:

- Lecture cum discussion
- Demonstration
- Participation
- Project work
- Presentation
- Library study
- Guest lecture
- Seminar/workshop/presentation

4.2 Specific Instructional Techniques

Unit	Activity and Instructional Techniques
I	The students will be involved in reviewing books, reports, papers and let them present and discuss in the class.
II	The students will be provided reference books to initiate group works on given topics for presentation and discussion.
III	The students will be explained about leadership by showing examples of various sports personalities.
IV	Women activists related to sports will be invited as the guest lecture for group discussion and participation
V	The students will be asked to discuss social stratification and social class which will affect participation and achievement in sports.

VI	The students will be given an individual assignment on given topics, they will be asked for preparing papers on the given topic and they will also be asked to present and discuss in the class.

5. Evaluation

5.3 Internal evaluation 40%

Internal evaluation will be done by subject teachers based on the following activities:

S.N.	Particular	Marks
1	Attendance	5
2	Participation in learning activities	5
3	First assessment: Article review/ book review/ open book test/ unit test etc	10
4	Second assessment: Midterm test	10
5	Third assessment: Project work/survey/seminar/workshop/presentation	10
Total		**40**

5.2 External Examination (Final Examination) 60%

The examination Division of the Dean's office will conduct the final examination at the end of the semester.

S.N	Types of question	Marks
1	Objective type question (Multiple choice 10x1 marks)	10
2	Short answer questions (6 with two OR questions x 5 marks)	30
3	Long answer questions (2 with one OR questions x 10 marks)	20
Total		**60**

6. Recommended Books and References

6.1 Recommended Books

Wuest, D. A. & Charles, A. B. (1992). ***Foundations of physical education and sport***. New Delhi: B. I. Publications. (Unit I and II)

Freeman, W. H. (1988). ***Physical education and sports in changing society.*** New Delhi: Surjeet Publication. (Unit IV to VI)

Maclver, R. M. (1945). ***Society: a textbook of sociology.*** New York: Farrar and Rinehar. (Unit II to V)

Stewart, E. W. (1978). ***Sociology: the human science.*** New York: Mc. Graw. Hill Book Company. (Unit II to V)

Lay, J. W. and Gerald S. K. (1981). ***Sport, culture, and society*.** London: Macmillan Company. (Unit II to V)

6.2 References

Davis, B., Bull, R., Roscoe, J. & Roscoe, D. (2000). ***Physical education and the study of sport.*** Spain: Mosby Harcourt Publishers Limited.

Vidya, B., & Sachdera, D.R. (1987). ***An introduction to sociology***. Allahabad: Kitab Mahal.

Phy. Ed. 546: Advanced Electronics

Course No: Phy. Ed. 546 (Elective) | Nature of course: Theoretical

Level: M. Ed. | Credit hours: 3

Semester: Fourth | Teaching hours: 48

1. Course Description

This course aims to acquaint students with "Advanced Electronics" skills and knowledge. The goal of this course is to help students develop advanced knowledge and comprehension of many aspects of electronics. The course covers resonance, differential, and operational amplifier circuits, as well as their applications and frequency response, arithmetic circuits, TTL circuits, IC fabrication, and optical fiber waveguides.

2. General Objectives

The general objectives of the course are as follows:

- To provide the students with adequate theoretical knowledge of electronics.
- To develop problem solving skills in students in electronics.
- To provide the students with adequate theoretical knowledge of opto-electronics.
- To facilitate the students with in depth knowledge in designing circuit of different oscillators.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Introduce the LCR circuit. • Define quality factor (Q) • Explain series resonance circuit and obtain the relation of bandwidth for it. • Calculate voltage across inductor and capacitor at resonance. • Derive impedance and admittance of the LCR- series circuit • Explain parallel resonance circuit and obtain the bandwidth for it, admittance at	**Units I: Resonance (8)** 1.1 Introduction to LCR circuit 1.2 Definition of quality factor (Q) 1.3 Series resonance and bandwidth of the series resonant circuit 1.4 Parallel resonance circuit and bandwidth of the parallel resonance circuit 1.5 Condition for maximum impedance 1.6 Impedance variation with frequency

anti resonance • Find the condition for maximum impedance by varying capacitor/ frequency/ inductor • Discuss the variation of impedance/ phase angle with frequency and plot the variations. • Describe bandwidth of anti-resonance circuits, and relation of it with the general case-resistance present in both capacitive and inductive branches. • Solve some related numerical problems.	and universal resonance curves 1.7 The general case-resistance present in both capacitive and inductive branches
• Define differential amplifier • Explain the circuit diagram of differential amplifier using Bipolar Junction Transistor (BJT) and calculate the voltage gain of the amplifiers in all mode. • Solve simple numerical examples related to gain/ common mode rejection ratio (CMRR) of differential amplifier. • Define operational amplifier • Discuss the characteristic of the ideal Operational amplifier • Explain the circuit diagram of operational amplifier to stabilize voltage in inverting and non-inverting mode. • Calculate voltage gain of the operational amplifies in inverting and non-inverting mode. • Solve some related numerical problems.	**Units II: Differential and Operational Amplifier Circuits (8)** 2.1 Introduction of ideal differential amplifier (BJT) 2.2 Common mode parameters 2.3 Practical differential parameters and its types 2.4 Introduction to operational amplifiers 2.5 Voltage stability and gain in inverting and non-inverting mode.
• Discuss Barkhausen's criterion for oscillation as revision. • Explain the theory, construction and	**Units III: Application of Operational Amplifier & Frequency response (8)**

concept of Wein Bridge Oscillator using operational amplifier in non-inverting configuration. • Calculate oscillating frequency and relation between gain and feedback factor of the Wein Bridge oscillator. • Explain the theory, construction and concept of RC-phase shift oscillator using operational amplifier in inverting configuration. • Design oscillator for the given frequency with the available values of capacitor and resistors. • Discuss the basic concepts of decibel scale and linear plot, semi-linear plot and logarithmic plot • Describe the use of series capacitance for low frequency response devices and calculate the upper cut off frequency • Explain the use of shunt capacitance for high frequency response devices and calculate the lower cut off frequency • Solve some related numerical problems.	3.1 Review of Barkhausen criterion for oscillation: oscillator 3.1.1 Wien bridge Oscillator 3.1.2 RC-phase shift oscillator 3.2 Definition and basic concepts of decibel and logarithmic plot 3.3 Series capacitance and low frequency response 3.4 Shunt capacitance and high frequency response
• Explain Half adder/full adder and controlled inverter circuit as revision • Describe operation and circuit of adder/ subtractor • Discuss the concept of binary multiplication and division • Solve some related numerical problems.	**Units IV: Arithmetic Circuits (4)** 4.1 Review of binary addition and subtraction and arithmetic building blocks 4.2 The adder and subtractor 4.3 Binary multiplication and division.
• Discuss the digital integrated circuits knowledge in 74xx series. • Explain circuit operation of two input	**Units V: TTL Circuits (6)** 5.1 Digital integrated circuits: 7400 Devices

TTL NAND gate • Illustrate the different TTL parameters as floating inputs, worst-case input/output voltage, compatibility, sourcing and sinking, noise immunity • Describe the circuit operation of AND-OR-INVERTER gates (AOI) • Discuss the operation of TTL devices and concept of positive and negative logic • Solve some related numerical problems.	5.2 Two input TTL NAND gate 5.3 TTL parameters 5.4 AND-OR-INVERTER gates 5.5 Three state TTL devices: positive and negative logic
• Explain the IC fabrication techniques • Describe fabrication of pnp/npn BJT, junction diodes, concept of metal semiconductor contacts and its fabrication technique fabrication techniques for IC registers.	**Units VI: IC Fabrication (4)** 6.1 Monolithic integrated circuit technology 6.2 Fabrication of bipolar transistor, IC Diodes, metal semiconductor contacts, IC registers.
• Explain optical fiber waveguide and its type, • Describe the advantage and disadvantage of Step index fiber. • Discuss the related parameters on step index fiber as, numerical aperture, fiber acceptance angle, total acceptance angle, maximum possible modes of propagation etc. • Describe the advantage and disadvantage of graded index fiber. • Explain inter-modal dispersion and maximum pulse broadening • Discuss the losses in fiber like bending losses, intrinsic fiber losses, bending/micro-bending losses and scattering losses/ absorption losses	**Units VII: Optical Fiber Waveguides (10)** 7.1 Introduction 7.2 Optical Fiber Waveguides: 7.2.1 Step Index Fiber 7.2.2 Graded Index Fiber 7.2.3 W-index fiber 7.2.4 Inter-modal dispersion and maximum pulse broadening 7.3 Losses in fiber 7.3.1 Bending losses 7.3.2 Intrinsic fiber losses 7.3.3 Bending/micro-bending losses 7.3.4 Scattering losses/ absorption losses 7.4 Fiber joining 7.4.1 Permanent/temporary

• Describe permanent and temporary fiber joining. • Explain single fiber connectors as demountable connector and beam expander • Discuss multi fiber connectors as $2 \times 2, 7 \times 7$ fiber coupler • Describe the measurement of fiber characteristics as fiber attenuation measurement and fiber dispersion measurement • Explain the use of glass and plastic as fiber material • Discuss the glass fiber manufacturing technique as double crucible, chemical vapor deposition technique • Compare goodness/badness of plastic and glass fiber. • Discuss different types of fiber as coated fibers BICC design. • Solve some related numerical problems.	7.4.2 Single fiber connectors 7.5 Measurement of fiber characteristics 7.5.1 Fiber attenuation measurement 7.5.2 Fiber dispersion measurement 7.6 Fiber materials and fiber cables

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

4. Instructional Techniques

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

4.1 General Instructional Techniques

Lecture method discussion method demonstration method collaborative method problem solving internet search and preparation of charts

4.2 Specific Instructional Techniques/Activities

Units	Activities and Instructional Techniques
Unit III	Project work
Unit V	Group work
Unit VI	Field work and report writing
Unit VII	Presentation

Note*: The teachers may decide the project work related to the course work*

5.Evaluation

5.1 Evaluation (Internal Assessment and External Examination)

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.*

5.2.Internal Evaluation **40 Marks**

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 assignment (written assignment)	10 Marks
4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

5.3. 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

7.	Objective questions (Multiple Choice Questions 10 x 1mark)	10 Marks
8.	Subjective short questions (6 questions with 2 'OR 'questions x 5 marks)	30 Marks
9.	Subjective long questions (2 questions with 1 'OR 'questions x 10 marks)	20 Marks
	Total	60 Marks

Recommended Books Reference

Recommended Books

Bogart, T. F. (1995). *Electronics Devices and Circuits.* New Delhi: Universal Book Stall. **(For Unit-II & III)**

Malvino, A.P., & Leach, D.P. (2011). *Digital Principles and Application.* New Delhi: Tata Mc Graw Hill Publishing Company Ltd. **(For Unit-IV & V)**

Milliman, J., & Grabel, A. (1987). *Microelectronics.* New York: McGraw Hill International edition. **(For Unit- VI)**

Ryder, J. D. (1955). *Network, Lines and Fields.* New Delhi: Prentice Hall of India. **(For Unit-I)**

Wilson, J., & Hawkes, J. F. (2001). *Optoelectronics and Introduction*. New Delhi: Prentice Hall. **(For Unit- VII)**

Reference Books:

Jain, R. P. (1991). *Modern Digital Electronics*. New Delhi: Tata McGraw Hill Publishing Company Ltd.

Khere, R. P. (2004). *Fiber Optics and Optoelectronics*. New Delhi: Oxford University Press Ltd.

Malvino, A. P., & Bates, D. J. (2012). *Electronic Principles.* New Delhi: Tata McGraw Hill Publishing Co.

Sarkar, C. K., & Sarkar, D. C. (2001). *Optoelectronics and Fiber Optics Communication.* New Delhi: New Age International (P) Limited

Phy. Ed. 547: Advanced Solid State

Course No: Phy. Ed. 547(Elective) | Nature of course: Theoretical

Level: M. Ed. | Credit hours: 3

Semester: Fourth | Teaching hours: 48

1. Course Description

This course is intended to acquaint students with "Advanced Solid-State Physics." This course aims to give future science teachers skills in Solid State Physics that will allow them to teach with confidence at a higher level. Electrons in bands, semiconductors, fermi surfaces, metals, magnetism, superconductivity, and transport phenomena are all covered in this course.

2. General Objectives

The general objectives of the course are as follows:

- To provide the students with adequate theoretical knowledge of solid-state physics.
- To equip students with problem solving skills in solid state physics.
- To develop knowledge in superconductivity.

3. Specific Objectives and Contents.

Specific objectives	Contents
• Describe Bloch function and Bloch theorem. • Explain nearly free electron model, origin of the energy gap • Calculate the magnitude of the energy gap. • Discuss the Kroning-Penny model and calculate the energy gap at the zone boundary. • Illustrates the wave equation of electron in periodic potential leading to the central equation.	**Unit I: Electrons in Bands (8)** 1.1 Bloch theorem 1.2 Nearly free electron model 1.3 Kronig-Penny model 1.4 Wave equation of electron in periodic potential 1.5 Number of orbitals in a band

• Explain the number of orbitals in a band and concept of occupied states band structures leading material to be insulator, semimetal and metal. • Solve some related numerical problems.	
• Explain general properties of semiconductors as conduction band, valence band, band gap, direct and indirect band gap, effective mass. • Describe effective masses in semiconductors. • Explain statistics of carrier concentration in intrinsic and extrinsic semiconductors. • Discuss the basic types of impurity levels in semiconductors • State the impurity conductivity and discuss donor states and acceptor states. • Explain statistics of carrier concentration in extrinsic semiconductors. • Discuss thermal ionization of donors and acceptors. • Describe thermoelectric effects in semiconductors. • Solve some related numerical problems.	**Unit II: Semiconductors (5)** 2.1 General properties of semiconductors 2.2 Effective masses in semiconductors 2.3 Carrier statistics in thermal equilibrium Intrinsic and extrinsic semiconductors 2.3.1 Intrinsic carrier concentration 2.3.2 Impurity levels in semiconductors - Donor levels - Acceptor levels - Capture levels - Deep levels 2.3.3 Impurity conductivity: Donor states, Acceptor states 2.3.4 Statistics of extrinsic semiconductors 2.4 Thermal ionization of donors and acceptors 2.5 Thermoelectric effect
• Explain the concept of reduced zone scheme, periodic zone scheme and extended zone scheme as the requirement for the development of	**Unit III: Fermi Surfaces and Metals (8)** 3.1 Introduction to energy and band structures: Fermi surfaces in the free electron system

fermi surfaces in the free electron. • Describe the construction of fermi surfaces in a first zone, a second zone and a third zone. • Discuss the calculation of energy bands using tight binding approximation and Pseudopotential methods. • Explain the concept of construction of fermi surfaces in alkali metals. • Describe the different types of orbits that electrons move in a static magnetic field. • Solve some related numerical problems.	3.2 Calculation of energy Bands: 3.2.1 Tight binding approximation 3.2.2 Pseudopotential methods 3.3 Construction of fermi surfaces in alkali metals 3.4 Motion of electrons in a static magnetic field 3.4.1 Electron orbits 3.4.2 Hole orbits 3.4.3 Open orbits
• Discuss Langevin's theory, Weiss Molecular Field Theory of Para magnetism and domain theory of Ferromagnetism. • Explain Curie point and exchange integral and exchange energy. • Discuss the temperature dependence of saturation magnetization lowest order magnetization deviation and relation between the lowest order magnetization deviation with temperature. • Describe saturation magnetization at absolute zero • Explain magnon and derive dispersion relation for spin wave in one dimension with nearest-neighbor interactions and dispersion relation for ferromagnetic cubic lattice. • Discuss the quantization of spin wave.	**Unit IV: Magnetism (8)** 4.1 Review on Para/and ferromagnetism 4.2 Ferromagnetic order 4.2.1 Curie point and the exchange integral 4.2.2 Temperature dependence of the saturation magnetization 4.2.3 Saturation magnetization at absolute zero 4.3 Magnons 4.3.1 Quantization of spin waves 4.3.2 Thermal excitation of magnons 4.4 Ferrimagnetic order 4.4.1 Curie temperature and susceptibility of ferrimagnets 4.4.2 Iron garnets

• Illustrate thermal excitation of magnons and relation of the fractional change of magnetization with temperature (Bloch $T^{3/2}$ law). • Explain ferrimagnetic order by using the concept of ferrites with spinel crystal structure and characteristics of ferrites. • Describe Curie temperature and susceptibility of ferrimagnets and find the relation between susceptibility with temperature • Discuss the concept of iron garnets. • Solve some related numerical problems.	
• Explain the general properties of Superconductor. • Discuss thermodynamic properties on superconducting material as entropy, specific heat, thermal conductivity and isotope effect • Explain electrodynamics of superconductor. • Derive the London equation and calculate London penetration depth. • Calculate the coherence length. • Differentiate between penetration depth and the coherence length. • Elaborate flux quantization in a superconducting ring and calculate the flux though the ring. • Discuss Josephson superconductor tunneling.	**Unit V: Superconductivity (9)** 5.1 General properties of superconductor 5.2 Thermodynamic properties of Superconductor 5.3 Electrodynamics of superconductor 5.4 Two characteristic length scales in Superconductors 5.4.1 London penetration length 5.4.2 Coherence Length 5.5 Flux quantization in superconducting ring 5.6 Josephson tunneling 5.6.1 DC Josephson effect 5.6.2 AC Josephson effect 5.7 High temperature superconductor 5.8 Applications of superconductivity

• Describe DC Josephson effect and calculate current density. • Explain AC Josephson effect and calculate current density with oscillating frequency. • Describe high temperature superconductor in progress. • Elaborate Perovskite and orthorhombic cell structure materials. • Discuss the applications of superconductivity. • Solve some related numerical problems.	
• Explain the general idea of Boltzmann transport equation with rate of change of distribution due to diffusion, external fields, scattering. • Calculate relaxation time and carrier mobility using the transport equation. • Discuss electrical conductivity using the transport equation and derive current density, electrical conductivity and electron mobility/ hole mobility. • Study thermal and thermoelectric effect. • Introduce the concept of Magneto-resistance. • Solve some related numerical problems.	**Unit VI: Transport Phenomena (10)** 6.1 General idea of Boltzmann transport equation (No need of mathematical derivation) 6.2 Relaxation time approximation 6.3 Electrical Conductivity 6.4 Thermal and thermoelectric effects 6.5 Magneto-resistance

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

4. Instructional Techniques

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

4.1 General Instructional Techniques

Lecture method, discussion method, demonstration method, collaborative method, problem solving, internet search.

4.2 Specific Instructional Techniques/Activities

Units	Activities and Instructional Techniques
Unit II	Project work and presentation
Unit V	Field work and report writing

5. Evaluation

5.1 Evaluation (Internal Assessment and External Examination)

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.*

5.1.1 Internal Evaluation 40 Marks

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 assignment (written assignment)	10 Marks
4.	Second assignment (Project work/ report writing and presentation)	10 Marks
5.	Third assignment/ Term exam	10 Marks
	Total	40 Marks

Note: *First assignment/assessment might be book review /article review, quiz, home assignment etc. according to nature of course. Second assignment/assessment might be project work, case study, seminar, survey/field study and individual/group report writing, term paper based on secondary data or review of literature and documents etc. and third assignment will be term exam.*

5.1.2 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

7.	Objective questions (Multiple Choice Questions 10 x 1mark)	10 Marks
8.	Subjective short questions (6 questions with 2 'OR 'questions x 5 marks)	30 Marks
9.	Subjective long questions (2 questions with 1 'OR 'questions x 10 marks)	20 Marks
	Total	60 Marks

Recommended Books and Reference

Recommended Books

Kittel, C. (1996). *Introduction to Solid State Physics* (7th ed.). New Delhi: John Wiley India Pvt. Ltd. **(For Unit-I, II, III, IV, &V)**

Ziman, J.M. (1979). *Principles of Theory of Solids.* Cambridge: Cambridge University Press. **(For Unit-VI)**

References

Ashcroft, N. W., & Mermin, N. D. (1976). *Solid State Physics*. New York: Holt Rinehart and Winston.

Dekker, A. J. (1965). *Solid State Physics*. New York: Printice Hall.

Elliot, R. J., & Gibson, A. F. (1974). *An Introduction to Solid state Physics and its Application.* India: Macmillan.

Hall, H. E. (1974). *Solid State Physics*. India: Wiley

Ibach, H., & Luth, H. (1991). *Solid State Physics*. New Delhi: Narosa Publishing House

Pillai, S.O. (2012). *Solid State Physics.* New Delhi: New age international Pvt. Ltd.

Saxena, A. K. (2010). *Solid State Physics: An Introduction to Solid State ElectronicDevices*. India: Wiley

Srivastava, J.P. (2001). *Elements of Solid-State Physics.* New Delhi: Prentice Hall of India Pvt. Ltd.

Walter, A. H. (1970). *Solid State Theory.* New York: Dover Publication Inc.

Ziman, J.M. (1979). *Principles of Theory of Solids.* Cambridge: Cambridge University Press

Pol. Sc. Ed. 546: Electoral Politics in Nepal

Course No.: **Pol. Sc. Ed. 546** Credit: 3

Nature of Course: Theory Teaching hours: 48

Level: M. Ed. 4th semester

1. Course Description

This comprehensive course delves into the complicated world of elections, providing students with a deep understanding of the foundational concepts, diverse types, practical systems, and institutional frameworks that shape the electoral landscape. As an essential element of democratic governance, elections play a pivotal role in determining the course of a nation's future. Through a blend of theoretical insights, practical examples, and interactive activities, this course equips students with the knowledge and skills to navigate the complexities of electoral politics.

2. General Objectives

The general objectives of this course are as follows:

- To provide students with a clear understanding of the fundamental concepts and principles of elections, including their role in democratic societies and the significance of citizen participation.
- To familiarize students with various types of elections, such as majority, proportional representation, mixed system and enabling them to differentiate between these types and comprehend their importance in shaping governance.
- To equip students with comprehensive knowledge about the electoral system implemented in Nepal, including its structure, components, and the ways it impacts representation and political dynamics in the country.
- To enable students to understand the role and functions of the Election Commission in Nepal, helping them appreciate its significance in ensuring free, fair, and transparent elections and maintaining the integrity of the electoral process.
- To provide students with an in-depth understanding of the constitutional and legal framework that governs elections in Nepal, enabling them to analyze and interpret relevant laws and provisions that shape the electoral landscape of the country.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Explain the concept, meaning, definition, and importance of election in democratic society • Describe the historical background of election • Describe role of election in governance • Explain the key principles of election along with adult franchise, free and fair election, secret ballot, regular and periodic election, party system, independent electoral management body, voter education, peaceful transition of power, electoral integrity with code of conduct, accessible and inclusive election	**Unit 1: Concept of Election (8)** 1.1 Definition and importance of election in democratic society 1.2 Historical background of election 1.3 Role of election in governance 1.4 Key principles of democratic election

• Understand the distinction between direct and indirect elections; advantages and disadvantages of both systems. • Examine the differences between plurality and majority systems in elections and evaluate the significance of achieving an actual majority versus a plurality of votes. • Explore the concept of proportional representation in elections, focusing on the equitable distribution of seats based on the percentage of votes a party receives. Critically assess the challenges and benefits of proportional representation in various political contexts. • Comprehend the mechanics of the Single Transferable Voting (STV) system, and evaluate the impact of STV on political outcomes and party dynamics. • Investigate the Party-List Proportional Representation system, where voters choose a party rather than individual candidates. • Examine the intricacies of hybrid electoral systems, such as the Mixed-Member Proportional (MMP) and Additional-Members' Systems.	**Unit 2: Types of elections (10)** 2.1 Direct and Indirect 2.2 Plurality and majority systems 2.3 Proportional representation 2.4 Single transferable voting system 2.5 Party-list proportional representation 2.6 Hybrid systems, mixed-member proportional or additional-members' systems.
• Understand the evolution of Nepal's electoral system by examining key historical events and milestones that have shaped its current state. • Explore the intricacies of Nepal's electoral politics within the framework of the Constitution of 2072 BS, including the roles of various federal and provincial institutions. • Analyze the processes and significance of federal elections in Nepal, covering the election of the President, Vice-president, Prime Minister, and members of the House of Representatives and National Assembly. • Examine the electoral dynamics of Nepal's provincial level, focusing on the election of members for Provincial Assemblies and the subsequent appointment of Chief Ministers. • Gain insight into the grassroots level of Nepal's electoral system by studying local level elections and their impact on community governance. • Critically assess the flaws and weaknesses within Nepal's electoral process and explore potential reforms aimed at improving transparency, fairness, and overall efficiency.	**Unit 3: Electoral System Used in Nepal (10)** 3.1 Electoral history of Nepal 3.2 Electoral Politics under the Constitution of Nepal 2072 BS 3.2.1 Federal (President, Vice-president, Prime Minister, House of Representatives, and National Assembly), 3.2.2 Provincial election (Provincial Assembly, Chief Minister) 3.2.3 Local level election 3.2.4 Defects and reforms of the electoral process

• Comprehensively analyze the structure, authority, and responsibilities of the Election Commission of Nepal, critically evaluating its composition, powers, and functions in the context of the country's electoral system. • Identify and examine the pivotal roles played by the Election Commission within Nepal's election system, highlighting its significance in ensuring fair, transparent, and efficient electoral processes. • Explore the legal framework surrounding election-related offenses in Nepal, investigating the types of election crimes, their consequences, and the judicial measures undertaken to maintain the integrity of the electoral process. • Assess the importance of voter education and awareness in the context of Nepal's electoral landscape, focusing on strategies employed by the Election Commission to enhance electoral literacy and encourage informed participation among citizens.	**Unit 4: Election Commission of Nepal (6)** 4.1 Composition, powers and functions: A critical study 4.2 Major role of election commission in the election system 4.3 Election crime and punishment 4.4 Electoral literacy
• Understand the foundational principles and provisions within the Nepalese Constitution that establish the framework for conducting elections in the country. • Familiarize oneself with the comprehensive legal framework governing elections in Nepal, including the relevant acts, rules, regulations, codes of conduct, and established procedures, as well as the directories and policies that guide the electoral process. • Explain the various electoral systems utilized in Nepal, comprehending their characteristics and implications on representation, accountability, and overall democratic functioning. • Acquire a clear understanding of the entire election process in Nepal, from voter registration and candidate nomination to polling, vote counting, and result declaration. • Explore how ethical conduct and adherence to codes of conduct are ensured during elections in Nepal, understanding the mechanisms in place to prevent unfair practices and promote a fair electoral environment. • Recognize the rights and responsibilities bestowed upon voters in Nepal, including the right to vote and its significance in the democratic process, as well as the civic responsibilities associated with participating in elections. • Analyze real-world case studies and practical applications related to the election process in Nepal,	**Unit 5: Constitutional and legal framework regarding elections of Nepal (14)** 5.1 Constitutional framework for election in Nepal 5.2 Legal framework for elections in Nepal (Election related Acts, Rules and Regulation, Code of Conduct, Directories, Procedures, and Policies) 5.2.1 Electoral systems 5.2.2 Election process 5.2.3 Implementation of code of conduct 5.2.3 Voter rights and responsibilities 5.2.4 Case studies and practical applications

critically evaluating challenges faced, successful strategies implemented, and the overall impact on democratic governance.	

4. Instructional Techniques

The instructional techniques in this course are divided into two groups. The first group consists of the general instructional techniques commonly applicable to most of the units and the second group consists of the specific techniques applicable to a specific unit.

4.1 General Instructional Techniques

- Lecture
- Discussion
- Question-answer
- Critical thinking strategies
- Inquiry
- Interaction

4.2 Specific Instructional Techniques

Unit 1	Self study, group discussion, visual aid
Unit 2	Sorting activity, case study, comparative analysis
Unit 3	Guest lecture, group discussion, case study
Unit 4	Panel discussion, mock election commission
Unit 5	Timeline activity, constitution and legal analysis, visit website: election.gov.np

5. Evaluation

5.1 Internal Evaluation 40%

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

S.N.	Nature of Questions	Points
1.	Attendance	5
2.	Participation in learning activities	5
3.	First assessment	10
4.	Second assessment	10
5.	Final assessment	10

5.2 External Evaluation (Final Examination) 60 %

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

S.N.	Nature of Questions	Number of Questions	Points
1.	Objective type question (Multiple choice)	10× 1	10
2.	Short answer questions (6 with 2 or questions × 5 points)	6× 5	30
3.	Long answer questions (2 with one or questions × 10 points)	2×10	20
	Total	18	60

Readings Materials and Reference

Aggarwal, J. C., & Chowdhary, N. K. (1998). *Elections in India*. New Delhi: Shipra Publications.

Anand, D. A. (1995). *Electoral reforms: Curbing role of money, power*. New Delhi: Indian Institute of Public Administration,

Austin, G. (1966). *The Indian Constitution: Corner stone of a nation*. Oxford: Oxford University Press.

Bajpyee, A. (1992). *Indian electoral system: An analytical study*. New Delhi: Nardeen Book Centre.

Bhagat, A. K. (1996). Elections and Electoral Reforms in India. New Delhi: Vikas.

Butler, D., Lahiri A. & Roy, P. (Eds.) (1997). *India decides: Elections 1952-1995*. New Delhi: Living Media Limited.

Dahlerup, D. (2003). *Comparative studies of electoral gender quotas*. Lima, Peru. Retrieved from http://www.equalvoice.ca/pdf/CS_Dahlerup_25-11-2003.pdf

Evans, G., & Norris, P. (Ed.) (1999). *Critical elections: Voters and parties in long -term perspective*. London: Sage.

Gupta, A. (1993). *Politics in Nepal (1950-60)* (2nd ed.). Delhi: Kalinga Publications.

Pokharel, B., & Rana, S. (2013). *Nepal: vote for peace.* New Delhi: Cambridge University Press India Pvt. Ltd.

नेपाली भाषाका सन्दर्भग्रन्थहरू

कानुन तथा न्याय मन्त्रालय (२०३७), *नेपालको संविधान २०१९,* काठमाडौँ : श्री ५ को सरकार, कानुन तथा न्याय मन्त्रालय ।

कानुन तथा न्याय मन्त्रालय (२०४७), *नेपाल अधिराज्यको संविधान २०४७,* काठमाडौँ : श्री ५ को सरकार, कानुन तथा न्याय मन्त्रालय ।

कानुन तथा न्याय मन्त्रालय (२०६३), *नेपालको अन्तरिम संविधान २०६३,* काठमाडौँ : नेपाल सरकार, कानुन तथा न्याय मन्त्रालय ।

कानुन तथा न्याय मन्त्रालय (२०६३), *संविधानसभा सदस्य निर्वाचन अध्यादेश, २०७०,* काठमाडौँ : नेपाल सरकार, कानुन तथा न्याय मन्त्रालय ।

कानुन तथा न्याय मन्त्रालय (२०७२), *नेपालको संविधान २०७२,* काठमाडौँ : नेपाल सरकार, कानुन तथा न्याय मन्त्रालय ।

निर्वाचन आयोग (२०६५), *संविधानसभा सदस्य निर्वाचन, २०६४, निर्वाचन परिणाम पुस्तिका* । काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७०क), *निर्वाचन सम्बन्धी ऐन-नियम संग्रह, २०७०,* काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७०ख), *संविधानसभा सदस्य निर्वाचन, २०७०, पहिलो हुने निर्वाचित हुने निर्वाचनको परिणाम पुस्तिका* । काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७०ग), *संविधानसभा सदस्य निर्वाचन, २०७०, समानुपातिक निर्वाचन प्रणली तर्फको निर्वाचन परिणाम पुस्तिका* । काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७०घ), *नेपाल लैङ्गिक तथा समावेशीकरण नीति, २०७०,* काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७१), *इलेक्टोरल एटलस नेपाल, २०७१,* काठमाडौँ : निर्वाचन आयोग, नेपाल ।

निर्वाचन आयोग (२०७३), *नेपालको निर्वाचन इतिहास*, काठमाडौं: निर्वाचन आयोग ।

फूएल, श्यामप्रसाद (२०७५), *नेपालमा निर्वाचन*, काठमाडौं: सनराइज पब्लिकेसन ।

बाइलेसो, से. र अन्य. (२०६७), *नेपालमा निर्वाचन प्रणाली र कोटा (छलफल पत्र ४)*, काठमाडौँ : इन्टरनेसनल आइडिया ।

भोलान, कारे (सन् २०१५), *नेपालमा चुनाव (राजनीतिक रूपले वञ्चित समूहको पहिचान),* काठमाडौँ : सोसल साइन्स वहा: र हिमाल किताव ।

राष्ट्रिय महिला आयोग तथा शान्तिमालिका, (२०७०), *राजनीतिक दलको विधान तथा संविधानसभाको निर्वाचन (२०७०) का लागि जारी गरिएको घोषणापत्रको लैङ्गिगक विश्लेषण,* काठमाडौँ : राष्ट्रिय महिला आयोग नेपाल तथा शान्तिमालिका ।

निर्वाचन आयोगले समयसमयमा प्रकाशन गर्ने निर्वाचनसँग सम्बन्धित ऐन, नियमावली, आचारसंहिता, निर्देशिका, कार्यविधि, नीति तथा निर्वाचन परिणाम पुस्तिका (स्रोत : https://election.gov.np/np/page/election-related(बिधक)

Pop. Ed. 546: Population and Environment

Course No.: Pop. Ed. 546 (Elective) Nature of Course: Theoretical
Level: M.Ed. Credit hours: 3
Semester: Fourth Teaching hours: 48

1. Course Description

This course is designed to provide students with comprehensive knowledge about the interrelationships between population and environment. It intends to provide an extensive knowledge of global environment issues, policies and programme with special reference to Nepal. It covers interrelationships between population and environment, population and natural resources, population and environment pollution as well as environment degradation, hazards and environment management aspects.

2. General Objectives

General objective of this course are as follows:

- To make students familiar with interrelationships between the population and environment.
- To enable the students to address the major environmental problems created by rapid population growth.
- To provide students with wider knowledge on major global and national efforts made for environmental protection and management.
- To acquaint students with the organisations and agencies involved in the preservation and protection of environment.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Illustrate the concept and types of environment. • Show the relation between ecology and eco-system • Describe the relationship between human and natural resources • Discuss the approaches for studying environment.	**Unit I. Interrelation of Population Environment and Natural Resources (10)** 1.1 Concept and types of environment 1.2 Ecology and eco-system (An integrated cycle) 1.3 Relationship between human and natural resources 1.4 Approaches for studying environment
• Explain the concept and types of environmental degradation. • Differentiate between pollution and degradation of environment. • Describe the issues of environmental degradation in different sectors.	**Unit II: Population Growth and Environmental Degradation (10)** 2.1 Concept and types of environmental degradation 2.2 Difference between environmental pollution and degradation 2.3 Environmental degradation 2.3.1 Land 2.3.2 Forest 2.3.3 Water

• Illustrate the effects of population growth on environment sectors. • Discuss the carrying capacity of earth on different natural resources.	2.3.4 Air 2.3.5 Climate/Weather 2.4 Effects of population growth on environmental degradation due to: 2.4.1 poverty 2.4.2 crowd/noise 2.4.3 land encroachment/overuse 2.4.4 over exploitation of natural resources 2.5 Carrying capacity of earth
• Describe the environmental status and issues globally. • Discuss different international conferences on environmental issues. • List the roles of major international environment related organizations.	**Unit III Global Status, Problems and Efforts (10)** 3.1 Environmental status and issues 3.1.1 Global warming 3.1.2 Ozone layer depletion 3.1.3 Acid rain 3.1.4 Green house effects 3.1.5 Loss of biodiversity 3.1.6 Rising sea level 3.2 International Environment Conference 3.2.1 Rio-declaration 3.2.2 Earth Summit I &II 3.2.3 Kyoto Protocol 3.2.4 Ramshar (Iraq) Wetland declaration 3.2.5 World Conservation Congress (WCC) 3.2.6 UN Framework conservation on climate change 21st conference of parties (COP 21 and 2015) 3.3 Major international environment related organisations 3.3.1 International Union for the Conservation of Nature and Natural Resources (IUCN) 3.3.2 World Wildlife Fund for Nature (WWF) 3.3.3 International Centre for Integrated Mountain Development (ICIMOD) 3.3.4 United Nations Environmental Programme (UNEP).
• Discuss the periodical environmental policies and strategies in Nepal. • Relate status of population and environment in Nepal.	**Unit IV: Environmental Policies and Programme in Nepal (10)** 4.1 Overview of environmental policies and strategies in different periodic plans

• Discuss the different conservative and protected sectors in Nepal • State the problems faced during policy implementation in Nepal. • Assess the hazards of environmental degradation.	Nepal 4.2 Current environmental policies and plans 4.3 Status of population and environmental condition 4.4 Different conservation and protection areas of Nepal 4.4.1 Nepal National Trust for Nature Conservation 4.4.2 Department of National Parks and Wildlife Conservation 4.4.3 National Zoo Management 4.5 Problems faced during policy implementation in buffer zones of Nepal 4.6 IEE and EIA practice in Nepal 4.7 Assessment of environmental hazards 4.7.1 Land slide 4.7.2 Soil erosion 4.7.3 Flood 4.7.4 Desertification 4.7.5 Earth quake
• State the needs and approaches for environmental management • Explain the needs of assessment of environmental impact • Elaborate the concept of 4 Rs in environmental management • Describe the concept of 5 Ps regarding the management of environment	**Unit V: Needs and Efforts in Environmental Management (8)** 5.1 Needs and approaches for environmental management 5.2 Environmental impacts assessment (EIA) 5.3 Concept of 4 Rs (Reduce, Recess, Reuse Recycle of natural resources 5.4 Concept of 5 P (Planning, Protection, Prevention, Promotion, and Production of Natural resources.

Note: The figures in the parentheses indicate the approximate 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 proposed specific instructional techniques applicable to particular units.

4.1 General Instructional Techniques

- Lecture
- Document review
- Discussion
- Collaborative works/learning
- Brainstorming
- Presentation

- Guest speech
- Project work
- Collaborative learning
- Interaction
- Research based learning activities

4.2 Specific Instructional Techniques

Unit	Activities and Instructional Techniques
I	• The students will be asked to consult the references regarding the concept and types of environment. • Teacher and students will discuss on the topic of ecology and ecosystem. • The students will work in group in the topic of population growth, migration and development. • The instructor and students will discuss regarding different approaches of studying environment and types of resources.
II	• The students will be divided into different groups and prepare on assignment by each group on the given topics of resources. • The teacher will summarise at the end of their group works and presentation
III	• The students will be divided into groups and discuss in different status and issues related to global environment • The teacher will discuss in the class about the international conferences and the role of international organisations in the environment related issues.
IV	• The teacher will discuss on the policies and strategies related to environment in the context of local areas. • The students will collect the materials related to conserved and protected areas of Nepal and discuss in class. • The students will be divided into groups and assignment will be given on environmental hazard observed in local areas.
V	• The teacher will discuss in the class regarding the needs and efforts for environmental management • The students will discuss in the groups regarding the concept of 4 R and 5P

5 Evaluation

5.1 Internal Evaluation 40%

Internal evaluation will be conducted by the subject teachers based on the following aspects:

S.N	Particular	Marks
1	Attendance	5
2	Participation in learning activities	5
3	First assessment: Article review/ book review/ open book test/ unit test, etc.	10
4	Second assessment: Midterm test	10
5	Third assessment: Project work/case study/field study/survey/seminar/workshop	10
Total		**40**

5.2 External Examination (Final Examination) 60%

Examination Section, Office of the Dean, Faculty of Education will conduct final examination at the end of semester.

S.N	Types of question	Marks
1	Objective type questions (Multiple choice questions 10x1 mark)	10
2	Short answer questions (6 questions with 2 OR questions x 5 marks)	30
3	Long answer questions (2 questions with one OR questions x 10 marks)	20
Total		**60**

6 Recommended books and references

6.1 Recommended Books

Dahal, M. K & Dev, R. D (1998). *Environment and sustainable development issues in Nepalese prospection.* Kathmandu: NEFAS (Unit I-IV)

IUCN (2000). *Environment source book:* Kathmandu: IUCN (Unit I-V)

Sharma, R. C. (1998). *Population resources environment and quality of life.* New Delhi: Dhanapat Rai and Sons. (Unit I-III)

Singh, J & Singh, D. (ND). *An introduction on earth and environment.* Varanasi: EDSC (Unit II & III)

6.2 Reference Materials

Baruwal, H. B. & Pokhrel, H.P (2068). *Teaching health and environment science.* Kathmandu: Pinnacle Publication.

Dhakal, S. N. (2006). *Environment education and community health.* Kathmandu: Ratna Pustak Bhandar. Unit 1, II, III and VI)

IUCN (2000). *Environment source book.* Kathmandu: IUCN

UNFPA (1991). *Population resources and environment.* USA

Pop. Ed. 547: Public Health

Course No.: Pop. Ed. 547 (Elective)	Nature of Course: Theoretical
Level: M.Ed.	Credit hours: 3
Semester: Fourth	Teaching hours: 48

1. Course Description

This course is designed to give students an overview of public health. It deals with determinants of public health, epidemiology as analytical methods of public health, prevention and control of diseases. It also emphasizes on environmental health and social health issues. It also intends to provide students with an overview of health care systems. Throughout the course, students will be actively engaged in discussion and group work, and analysis of public health issues that promote a greater understanding of public health as system and its interdisciplinary connection to other fields.

2. General Objectives

General objectives of this course are as follows:

- To provide the students with the understanding of determinants, function and historical evolution of public health.
- To enable the students to apply epidemiologic tools and methods in analysing the public health problems.
- To develop basic understandings of control and prevention of communicable and non-communicable diseases among the students.
- To familiarize the students with environmental health problems and their management
- To give the students an overview of social health issues such as alcoholism, drug addiction, consumer health and social exclusion.

3. Specific Objectives and Contents

Specific Objectives	Contents
• Clarify the concept of health and public health. • Explain key determinants of public health. • Illustrate core functions of public health.	**Unit I. Introduction to Public Health (5)** 1.1 Concept of health and public health 1.2 Determinants of public health 1.2.1 Biological status 1.2.2 Social and cultural environment 1.2.3 Built and natural environment 1.2.4 Political environment 1.3 Core functions of public health 1.3.1 Assessment 1.3.2 Policy development 1.3.3Assurance
• Clarify concept of epidemiology • Calculate incidence, prevalence, case fatality and mortality rates/ratio • Apply epidemiological study methods in analysing the public health problems • Explain epidemiological study methods	**Unit II: Epidemiology as an Analytical Tools and Methods of Public Health (8)** 2.1 Concept of epidemiology 2.2 Measurement of morbidity 2.2.1 Incidence and prevalence rate 2.2.2 Case-fatality rate

• Illustrate key issues and tools of global burden of diseases and quality of life • Discuss factors contributing to health and epidemiologic transition	2.2.3 mortality rate/ratio 2.3 Epidemiological study methods 2.3.1 Descriptive study 2.3.2 Case-control study 2.3.3 Cohort study 2.3.4 Randomized controlled trial (RCT) study 2.4 Issues and tools of global burden of disease and quality of life 2.5 Factors contributing to health and epidemiologic transition
• Classify communicable disease by modes of transmission. • Illustrate host-agent-environment triads with suitable examples. • List down vaccine preventable diseases and immunization coverage in Nepal. • Explain prevention and control methods of vector borne diseases such as malaria and dengue. • Discuss methods of controlling and preventing water/faecal borne diseases. • Delineate methods of controlling and preventing ARI and TB. • Define chronic and hereditary diseases • Illustrate risk factors of non-communicable diseases. • Identify methods and techniques of controlling and preventing cancer, diabetes and blood pressure.	**Unit III. Control and Prevention of Disease (10)** 3.1 Concept of communicable diseases 3.2 Classification of communicable diseases by major modes of transmission 3.3 Host-Agent-Environment triads 3.4Vaccine preventable diseases immunization coverage in Nepal 3.5 Control and prevention of vector borne diseases Malaria Dengue 3.6 Control and prevention of water borne diseases: Diarrhoea, Dysentery and Typhoid 3.7 Control and prevention of ARI, swine flu and TB 3.8 Non-communicable diseases 3.8.1 Concept of non-communicable, chronic and hereditary diseases 3.8.2 Risk factors of non-communicable diseases 3.8.3 Prevention and control of cancer, diabetes, blood pressure
• Explain the concept environment health and sanitation • Explain biological, chemical and physical hazards of environmental population • Discuss the prevention of air and water pollution for public health • Identify natural disaster in Nepal and their impacts on public health • State methods required for prevention of air and water pollution • Describe concept of climate change and its impact on human health • Outline principles and practices of	**Unit IV. Environmental Health (10)** 4.1 Concept of environment health and sanitation 4.2 Health hazards of environmental pollution 4.2.1 Biological hazards 4.2.2 Chemical hazards 4.2.3 Physical hazard 4.3 Prevention of air and water pollution 4.4 Natural disaster and their impacts on public health 4.5 Climate change and its impact on human health 4.5 Principles and practices of solid waste management in urban area

solid waste management in urban areas • Describe the challenges and problems of occupational health and its management • State the measures to be applied for protecting the health of the workers	4.6 Occupational health 4.6.1 Occupational diseases 4.6.2 Health hazards of agriculture workers 4.6.3 Health problems due to the pesticides and lead poisoning 4.6.4 Measures for heath protection of workers
• Discuss factors contributing alcoholism and drug addictions • Analyse current policy and strategies of the government for the prevention of alcohol and drug abuse • Outline situation of food security and malnutrition in Nepal • Suggest ways for preventing malnutrition. • Delineate the concept of consumer's health and role to promote consumers' health. • Discuss roles of consumer protection law and consumer rights in the health of consumers • Describe strategies adopted by government and international community to reduce social disparity and social exclusion in health	**Unit V: Public Health Approaches to Social Health Problems (10)** 5.1 Factors contributing alcoholism and drug addiction 5.2 Policy and strategies for prevention of alcohol and drug abuse 5.3 Problem of food security and malnutrition in Nepal 5.4 Prevention of malnutrition 5.5 Concept of consumerism, consumer health and protection 5.6 Concept of social exclusion in health 5.7 Strategies for reducing social disparity and social exclusion in health
• State the concept of health care systems • Explain the types of health care system in Nepal • Illustrate organizational structure of health services in Nepal • Mention principles of primary health care • Discuss situation of primary health care services in Nepal	**Public VI. Health and Health Care Service (5)** 6.1 Concept of health care systems 6.2 Types of Health care system in Nepal 6.3 Organizational structure of health services in Nepal (Federal, Provincial and Local) 6.4 Principles of primary health care 6.5 Primary health care services in Nepal

Note: The figures in the parentheses indicate the approximate 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 specific units.

4.1 General Instructional Techniques

- Lecture
- Document review
- Discussion

- Collaborative works/learning
- Brainstorming
- Presentation
- Guest speech
- Project work
- Collaborative learning
- Interaction
- Research based learning activities

4.2 Specific Instructional Techniques

Unit	Activities and Instructional Techniques
I	• Teacher and students discuss the concept of public health using mate cards. • The teacher distributes meta-card and marker to each student and assigns them write factors affecting health and diseases within 10 minutes. After completion the teacher sticks major determinants of public health like biological, social, cultural environment, natural and political environment on different places of board. Then the students are asked to stick their points under the related major determinants. • The teacher discusses with factors affecting health and diseases on the bases of students work.
II	• Students are asked to consult material related to epidemiology and measurement of morbidity and mortality. • Students present the concept of epidemiology and calculate morbidity and mortality on the board with the help of formula.
III	• Students are given home assignment in different titles like the classification of communicable diseases by principal modes of transmissions, Host-Agent-Environment Triads, prevention of communicable diseases and hazards of non communicable diseases and their prevention. • They present in class followed by discussion.
IV	• Students review about health hazards due to environmental pollutions, measures to control water and air pollution. • A guest lecture is organized on impacts of natural disaster and climate change and their management. • They present in the class followed by discussion • Students visit any industrial estate and fill up of a form based on observation and enquiry about occupational hazards and their measures for preventions. • Students discuss based on their report.
V	• Organize an essay competition on public health approaches to social health problems in different titles based on the contents of unit. • A discussion will be held after competition and comments will be provided to improve the quality of essay based on the coverage of contents.
VI	• Students visit Health Post or hospital and fill up form health services using survey based on enquiry and observation. • They present the report in class followed by discussion. • Teacher discusses about types of health service and primary health care based on the students report.

5. Evaluation

5.1 Internal Evaluation 40%

Internal evaluation will be conducted by the subject teachers based on the following aspects:

S.N	Particular	Marks
1	Attendance	5
2	Participation in learning activities	5
3	First assessment: Article review/ book review/ open book test/ unit test, etc.	10
4	Second assessment: Midterm test	10
5	Third assessment: Project work/case study/field study/survey/seminar/workshop	10
Total		**40**

5.2 External Examination (Final Examination) 60%

Examination Section, Office of the Dean, Faculty of Education will conduct final examination at the end of semester.

S.N	Types of question	Marks
1	Objective type questions (Multiple choice questions 10x1 mark)	10
2	Short answer questions (6 questions with 2 OR questions x 5 marks)	30
3	Long answer questions (2 questions with one OR questions x 10 marks)	20
Total		**60**

6. Recommended books and references

6.1 Recommended Books

McKenzie, J.F., Pinger, R.R. & Kotecki, J.E (2005). *An introduction to community health (5th edition*) Boston: Allyn and Bacon. (For unit I and IV)

Schneider, M. (2011). *Introduction to public health*. New Delhi: Jones & Bartlett India Pvt. Ltd. (For Unit I and II)

Tulchinsky, T.H, & Varavikova, E. A. (2009). *The new public health* (Second Edition). San Diago, California: Elsevier Academic Press. (For unit I, II, III and IV)

Park, K. (2012). *Park's Textbook of Preventive and Social Medicine.* Jabalpur, India: M/S Banarsidas Bhanot (For Unit II, III, IV and V)

6.2 Reference Materials

Budhathoki, C.B. and Wagle, B.P. (2069 BS). *Community health and organisation* (Nepali). Kathmandu: Pinnacle Publication 2011*). Sanitation and hygiene master plan, Nepal*

Castello, J. & Haggart, M. (2003). *Public Health and Society*. New York: Palgrave MacMillan

DoHS (2013). Annual report of health services. Ministry of Health and Population, Department of Health Services. GoN (. (For Unit II)

Healey, B.J., & Walker, K.T. (2009). *Introduction to occupational health in public health practice*. San Francisco: Jossey-Bass

Lopez, A.D. et al. (2006). *Global burden of disease and risk factors*. New York: World Bank

Susman, S., & Ames, S.L. (2008). *Drug abuse, concept and cessation*. New York: Cambridge University Press. (For Unit IV)

Tchobanglous, G., & Kreith, F. (2002). *Handbook of solid waste management*. New York: McGrahill Companies.

WHO (2013). *Community based Dengue vector control*. ADB and WHO

DoHS/MoHP (2079). *Annual Report*. Department of Health Services 2077/78 (2020/21)

SN. Ed. 546: Multiple Intelligence Approach to Teaching Children with Special Needs

Course No: SN. Ed. 546 Nature of course: Theoretical
Level: M. Ed. Credit Hours: 3
Semester: Fourth Teaching Hours: 48

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1. Course Description

This course provides a general understanding of Multiple Intelligence (MI)) approach to the development of instructional planning for children with diverse needs. The main purpose of this course is to enhance the teaching skills of learners today with the use of multiple intelligence theory in teaching. It acknowledges different people's strengths and abilities for the development of curriculum /instructional planning. Further, it explores children's various intelligences in areas previously ignored in the traditional classroom.

2. General Objectives

The general objectives are stated below-

- To provide learners with a deeper understanding/knowledge of MI theory and its components.
- To enable learners to apply the key principles of MI theory in designing lesson plans for diverse learners.
- To develop students' skills in strengthening particular area(s) of intelligence for students with exceptionality.

3. Specific Objectives and Content

Specific Objectives	**Contents**
• Clarify the foundational concept of MI and IEP approaches • Discuss the types of MI based on Gardner's insights • Highlight the major components of MI • Explain the Relationship of MI Theory to Other Intelligence Theories • Ascertain key issues of Multiple Intelligence	**UNIT I: Multiple Intelligence Approach (10)** 1.1 Foundation of Multiple Intelligence Approach 1.2 Theoretical Basis for MI Theory 1.3 Types of Intelligences: Gardner 1.4 Components of Multiple Intelligences 1.5 Relationship of MI Theory to Other Intelligence Theories 1.6 Issues of Multiple Intelligence
• Describe various intelligences in children. List the key components of MI theory. • Discuss the application of MI theory with references to the identification, tapping, and development of	NIT II: MI Theory & Personal Development (10) 2.1. Describing Intelligence in Children 2.2. Components of MI Theory 2.3. Application of MI Theory

intelligence in children. • Mention activators and deactivators of	• Identifying Multiple Intelligences • Tapping MI Resources • Developing Multiple Intelligences 2.4. Activators and Deactivators of Intelligences
• Illustrate the concept of multimodal teaching. • Explain the role of MI teachers in developing instructional strategies for children with special needs. • Identify key materials and methods used in teaching MI. • Explain the ways to prepare lesson plans by using the MI approach. • State the role of MI theory in the development of IEP • Describe the major areas of MI and thematic instruction	**UNIT III: MI and Curriculum Development (10)** 3.1. Concept of Multimodal Teaching 3.2. The MI Teacher 3.3. Key Materials and Methods of Teaching MI 3.4. Preparing Lesson Plans by Using the MI Approach 3.5. MI Theory in the Development of IEPs 3.6. MI and Thematic Instruction
• Explain the ways to grasp students' attention • List out the areas of students' transition Discuss classroom rules for proper conduct through a multiple intelligence approach • Describe the strategies to manage challenging behaviors • Explain the efforts towards building a model MI school	**UNIT IV: MI Approach and Classroom Management (8)** 4.1. Gaining Students' Attention 4.2. Preparing for Transitions 4.3. Communicating Class Rules 4.4. Managing Individual Behaviors 4.5. A Model MI School: The Key Learning Community
• Discuss MI theory as a growth paradigm. Identify the leading individuals with disabilities as role models. • Draw the implications of MI theory for special needs education. • Differentiate Standardized Testing and Authentic Assessment • Highlight the critical notes about MI theory	**UNIT V: MI Theory and Special Needs Education (10)** 5.1 MI Theory as a Growth Paradigm 5.2 Individuals with a Disability as Role Models 5.3 Implications of MI Theory for Special Needs Education 5.4 Standardized Testing and Authentic Assessment 5.5 MI Theory and Its Critics

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

4. Instructional Techniques

Two types of instructional techniques are suggested. The first one contains general instructional techniques applicable to most of the contents. The second consists of specific instructional techniques applicable to specific content.

4.1 General Instructional Techniques

- Introductory multimedia –projector presentation on each topic of the units by the teachers.
- Use of lecture-cum discussion, question-answer, quiz, and brainstorming for the theoretical contents.
- Presentation on each unit by students.
- Case study and project work
- Review of journal articles of each unit.

4.2 Specific Instructional Techniques

For this course, the following instructional techniques are suggestive as specific instructional techniques:

- Classroom presentation by the students
- Case study
- Project works
- Group work activities
- Guided individual study
- Tutorial support on different content

Units	**Specific Instructional Techniques**
Unit I MI Approach	**Classroom Presentation** Students will prepare power point presentation on the MI approach and they will present their PowerPoint text in the classroom followed by discussion and teacher's feedback.
Unit II MI Theory & Personal Development	**Case Study** Students will visit special school/resource room class /inclusive classroom settings to explore students' personal development as applied to meet students' needs, abilities, and interests. The cases will be presented in the class followed by discussion and teacher's feedback.
Unit III MI and Curriculum Development	**Project Work** The groups of students will visit an inclusive classroom setting / special school or community-based rehabilitation (CBR) centers. They will observe and compare the general lesson plan development strategy with MI instructional planning approach. The students will prepare a lesson plan or a plan of action by using the MI approach for children with disabilities or diverse needs. And students will present their report in class followed by a discussion and the teacher's comments

Unit IV	**Presentation by Resource Persons** Invite professionals, Experts, or other related resource persons of MI to boost the knowledge of the students.
Unit V MI Theory and Special Needs Education	**Brainstorming and Group –Work** Activities A brief brainstorming activity on the implication of MI theory for Special Needs Education will be carried out. The students will be asked to work in groups about the implications of MI techniques in preparing instructional strategies for children with special needs. The group will present their activities on MI instructional strategies in preparing IEP as followed by the teacher's feedback and comments.

5. Evaluation

Two types of assessment techniques, namely internal and external, will be carried out to appraise the academic achievement of students in this course. Internal and external assessment procedures will carry 40 and 60 percent weight correspondingly. Detail description of assessment procedures will be as follows:

5.1 Internal Assessment 40%

The concerned teacher will carry out the internal assessment of the students based on the distribution of marks as stated below:

• Attendance	05 marks
• Participation in learning	05 marks
• The first assessment (Literature review and presentation)	10 marks
• Second assessment (School visit and report submission)	10 marks
• Third assessment (Written examination)	10 marks
Total	**40 marks**

5.2 Semester/Final Examination 60%

Examination Division, Dean's Office, Faculty of Education will conduct semester/final examination at the end of each semester. The distribution of marks for the types of questions to be asked in the final examination is as follows:

• Objective type questions (10 Multiple choice items x 1 marks)	10 marks
• Short answer questions (6 questions with 2 "or" questions x 5 marks)	30 marks
• Long answer questions (2 questions with 1 or question x 10 marks)	20 marks
Total	**60 marks**

6. Recommended Books References Materials

6.1 Recommended Books

Barbara, D.B. & Cynthia M. H. (2006). *Writing Measurable IEP Goals and Objectives*. (2nd edition). New York: Attainment Co., Inc. (For units 1 and 2)

Armstrong, T. (2006). *Multiple Intelligences in the Classroom (3rd edition)*. Alexandria: Association for Supervision in the Classroom. (For all units)

6.2 References Materials

Gardner, H. (l993b). *Multiple intelligences: The theory in practice*. New York: Basic Books. (For units 1,2 and 3)

Gardner, H. (1999). Intelligence reframed: *Multiple intelligences for the 21st century*. New York: Basic Books. (For unit 5)

Gardner, H. (2006a). *Multiple intelligences: New horizons in theory and practice*. New York: Basic Books. (For units 3,4 and 5)