

Programme Handbook

**Bachelor of Arts**

**in**

**Development Economics**

Offered by



In affiliation with



Royal University of Bhutan

Effective July 2022

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**This programme handbook should be read in conjunction with the RTC Student Handbook.**

**Acknowledgements:**

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# **1 Programme Specification**

## **1.1 Basic Information on the Programme**

Name of the home base college of the programme: Royal Thimphu College  
Title of Award: Bachelor of Arts in Development Economics  
Duration and mode of study: Four years, full-time  
Award granting body: Royal University of Bhutan  
Date of Initial Approval: 15<sup>th</sup>-16<sup>th</sup> February 2016, 35<sup>th</sup> AB (Validated)  
Date of last review: ##th-##th ### 2022, 48th AB.

## **1.2 Aims and Learning Outcomes of the Programme**

### **1.2.1 Aims of the Programme**

The programme deals with the principal issues of economic development, with the objective of preparing students for employment in the development sectors of the country and for further study and research in this subject area. It also aims to promote the overall personal development and well-being of the students by imparting a relevant and good quality education in the core and general education modules offered in the programme, thereby enabling the graduates to contribute to the economic and social development of Bhutan and possibly in the global arena. The programme emphasizes learning at the current frontier of knowledge in the subject of Economics. It places an emphasis on the understanding of basic economic principles at a level of rigor generally appropriate to an undergraduate experience. The programme is designed to provide a firm grounding in modern economic theory with special emphasis on the issues pertaining to economic development, and instil a capacity amongst students for independent thought about economic policies and problems. The programme aims to produce economists who are socio-politically engaged, quantitatively adept, historically informed and philosophically grounded.

This programme provides specialised focus on issues related to the development patterns, challenges, policy framework, and choices. The first two years of the programme provide training in core theoretical modules, while the last two years of the programme mainly focus on modules that provide in depth study of development issues, and new approaches to address development challenges. The programme provides a standardised approach to study critical development issues. Unlike a general programme in economics, this programme incorporates a holistic approach to study socioeconomic development- philosophical underpinning, institutional building, sectoral perspective, financing of development, and global experience.

The programme will aim to intellectually stimulate the students to apply the subject knowledge to a range of development problems by encouraging critical, evaluative, and strategic thinking. The programme will aim to foster skills that would be essential to prepare students for the emerging part of 21<sup>st</sup> century- creative, adaptive and critical thinking, new media literacy, collaboration, effective communication, multidisciplinary, and social intelligence. These skills will enable the students to effectively navigate in a rapidly shifting landscape of organisational forms and skills requirements. Broadly, the programme aims to produce productive citizens who can contribute to the nation building processes.

### **1.2.2 Learning Outcomes of the Programme**

Graduates of this programme are expected to acquire not only a grounding within the field of Development Economics (subject-specific skills) but will also gain competency in the following

skill areas: critical-thinking skills, application skills and transferable skills. Specific learning outcomes based on these four different skill sets are the foundation of this programme, along with appropriately aligned teaching, learning and assessment approaches.

### **Subject-Specific Skills (SS):**

- KU1. Explain the fundamental principles of economics, including microeconomics and macroeconomics.
- KU2. Evaluate the application of economic reasoning to the study of relevant problems and policies in economics.
- KU3. Make graphical and statistical representations of economic ideas using appropriate techniques.
- KU4. Analyse economic issues at a level of depth expected from undertaking research appropriate to an undergraduate Development Economics degree.
- KU5. Apply relevant quantitative and qualitative techniques to common economic analyses.
- KU6. Analyse the functioning of state, market and institutions in context of economic issues.
- KU7. Relate economics to the wider socio-political contexts.

### **Critical Thinking Skills (CS):**

- CS1. Identify relevant patterns from given information.
- CS2. Synthesize and interpret information from a range of sources.
- CS3. Solve complex problems within the given constraints.
- CS4. Effectively participate in the public discourse related to relevant socio-economic issues.
- CS5. Apply ethical reasoning for making right choices.

### **Application Skills (AS):**

- AS1. Gather and organize data for analysis, presentation and decision-making purposes.
- AS2. Effectively use statistical software for data analysis.
- AS3. Simplify complex problems to improve decision-making processes.
- AS4. Use techniques for planning and scheduling work/projects.
- AS5. Adopt and apply new technology at workplace.

### **Transferable Skills (TS):**

- TS1. Function effectively as a reflective and independent learner.
- TS2. Effectively present and communicate concepts, ideas and opinions both by writing and speaking.
- TS3. Undertake self-evaluation and preparation for employment.
- TS4. Develop and apply strategies for managing personal and organisational resources.
- TS5. Take initiative and responsibility to lead others.
- TS6. Relate to, and collaborate effectively with mutual self-respect for colleagues.

## **1.3 Career-related Opportunities**

The programme will expand the range of career choices available to graduates. Upon successful completion of this programme, graduates will have adequate training to pursue entry-level careers as development practitioners, policy analysts, consultants, researchers, entrepreneurs, bankers, social leaders, political leaders, and teachers. The programme will also help graduates to develop adequate generic skills to remain employable in an increasingly unpredictable and volatile job market.

## 1.4 Programme structure

Yr	Sem	Modules				
I	I	<b>CET101</b> Introductory Microeconomics	<b>CET102</b> Introductory Macroeconomics	<b>MTE101</b> Mathematics for Economics	<b>EAP101</b> Intermediate English for Academic Purposes  [English comm. Gen. Ed.]	<b>IPS101</b> IT and Basic Problem Solving  [IT Skills Gen. Ed]
	II	<b>CET103</b> Intermediate Microeconomics	<b>STT101</b> Descriptive Statistics for Economics	<b>EAP102</b> Upper- Intermediate English for Academic Purposes  [English comm. Gen. Ed.]	<b>GSE101</b> Analytical Skills  [Analytical Skills Gen. Ed.]	[Science and Technology Gen. Ed. Elective]
II	I	<b>ETH203</b> Ethics in Economics	<b>STT202</b> Inferential Statistics for Economics	<b>CET204</b> Intermediate Macroeconomics	<b>DZG101</b> Dzongkha Communication	[Enhanced English writing skills Gen. Ed. Elective]
	II	<b>QME201</b> Introductory Econometrics	<b>CET205</b> Monetary Economics	<b>DEV202</b> Bhutanese Economy	[Open Gen. Ed. Elective]	<b>DEV203</b> Environmental Economics
III	I	<b>CET306</b> Public Economics	<b>DEV304</b> Development Problems and Policies	<b>DEV305</b> Agricultural Economics	[Humanities Perspective Gen. Ed. Elective]	<b>UGR301</b> Research Methodology
	II	<b>DEV307</b> Contemporary Literature in Economics	<b>CET307</b> International Economics	<b>QME302</b> Intermediate Econometrics	<b>DEV306</b> Sustainable Rural Development Approaches	[Open Gen. Ed. Elective]
IV	I	<b>DEV408</b> Health Economics	<b>DEV409</b> Development Process and Institutions	<b>DEV410</b> Behavioural Economics	<b>DEV411</b> Urban Economics	<b>UGR404</b> Undergraduate Research Project
	II	<b>ENM305</b> Ecotourism	<b>DEV412</b> Emerging Economies	<b>DEV413</b> Industrial economics	[Business / Financial Literacy Gen. Ed. Elective]	

All the modules, except for UGR404 are 12-credit modules, cumulating to 480 credits achieved over four years of full-time study. Each semester requires approximately 15-16 weeks of teaching-learning incorporating 40 hrs of student effort per week, and approximately 2 weeks of examinations. UGR404 spreads over two semesters and add up to 24 credit points.

The programme structure is designed to facilitate systematic and sequential learning that leads to specialisation in the field of development economics. The first year of the programme

focuses on three major aspects: foundation-building on fundamental theoretical modules in Economics, building basic quantitative skills, and strengthening basic communication and IT skills. The second year of the programme mainly aims to develop the theoretical skills that are necessary to review macroeconomic management and further strengthen quantitative skills necessary for research, forecasting and policy analysis. An introduction to ethics in economics at this stage will enable students to be aware of and apply ethical issues in their academic work. Study of the Bhutanese economy will provide an opportunity to review the economic development process in Bhutan. Simultaneously, a focus on communication skills and multi-disciplinary skills will also be retained. The third year brings in an exclusive focus on the development issues and challenges by incorporating modules on higher levels of theoretical frameworks and philosophical approaches. Students will be formally introduced to research in economics and apply higher orders of quantitative skills to analyse development issues. The fourth year completely focuses on the modules which review a range of relevant development policies and also promote quantitative research in the field of development economics.

Classification/breakdown of curriculum into broad component categories

Category	Modules	% of Curriculum
Core Economics Theory (CET) Modules	CET101, CET102, CET103, CET204, CET205, CET306, CET307	7/40 = 17.5
Undergraduate Research (UGR) Modules	UGR301, UGR404 (x2)	3/40 = 7.5
Development Economics (DEV) Modules	ETH203, DEV202, DEV203, DEV304, DEV305, DEV306, DEV307, DEV408, DEV409, ENM305, DEV410, DEV411, DEV412, DEV413	14/40 = 35
Quantitative Methods for Economics (QME), Statistics (STT), and Mathematical Methods (MTE)	QME201, QME302, STT101, STT202, MTE101	5/40 = 12.5
General Education Modules	EAP101, EAP102, IPS101, DZG101, GSE101, other General Education Electives x6	11/40 = 27.5
	<b>Total</b>	<b>40/40 = 100%</b>
Borrowed modules	ENM305, EAP101, EAP102, General Education Electives from other programmes	

General Education fixed modules or elective options by category

Note:

*Required:* The indicated module(s) are fixed by the programme structure and students must take these modules only.

*Fulfilled:* The programme structure with indicated core/major modules already includes modules that fulfil the given general education category. But other modules in the given category of General Education offered at the college the broader portfolio could still be opted from as an Open General Education Elective.

*Elective:* Students may select from among specified options to fulfil the given general education category. Students can opt for more than one module from the given category as an Open General Education Elective if desired.

**a. English communication (24 credits)**

*Required:* EAP101 Intermediate English for Academic Purposes, EAP102 Upper-intermediate English for Academic Purposes.

**b. Dzongkha communication (12 credits)**

*Required:* DZG101 Dzongkha Communication.

**c. Enhanced Writing skills (12 credits)**

*Electives:* LAN303 Prose Writing, LAN405 Journalistic Writing (borrowed from BA in English Studies).

**d. Humanities perspective (12 credits)**

*Electives:* CMS101 Introduction to Communication Arts and Technology (borrowed from BA in Mass Communication), LIT101 Folk Literature, LIT205 Contemporary Bhutanese Writings in English (borrowed from BA English Studies).

**e. IT Skills (12 credits)**

*Required:* IPS101 IT and Basic Problem Solving. If students have demonstrated IT skills already fulfilling the learning outcomes of IPS101, students can opt for other IT modules currently under development, such as *Introductory Python* or *Digital Media*.

**f. Science and Technology (12 credits)**

*Electives:* SRE101 Scientific Reasoning, ENV101 Introduction to the Environment, ENV102 Population, Development, and Environment (borrowed from BSc in Environmental Management).

**g. Numeracy (12 credits)**

*Fulfilled* by several modules: STT101 Descriptive Statistics for Economics, MTE101 Mathematics for Economics, STT202 Inferential Statistics for Economics, QME201 introductory Econometrics, QME302 Intermediate Econometrics.

**h. Business/Financial Literacy (12 credits)**

*Electives:* EDP101 Entrepreneurship, MGT101 Introduction to the Business Environment (borrowed from BBA/BCom).

**i. Bhutan Studies (12 credits)**

*Fulfilled* by DEV202 Bhutanese Economy.

**j. Social & behavioural sciences (12 credits)**

*Fulfilled* by several DEV and CET modules including DEV410 Behavioural Economics.

**k. Analytical Skills (12 credits)**

*Required:* GSE101 Analytical Skills.

**l. Global Affairs/Civics (12 credits)**

*Fulfilled* by: DEV412 Emerging Economies.

**m. Ethics/ Values Orientation (12 credits)**

*Electives:* ETH101 Introductory Ethics; PER102 སྤྱི་གཞི་ལམ་ལུགས།, PHY201 བཀའ་ཡིན་དང་ཤེས་བཞིན་གྱི་མཐོ་སྤྱོད། (borrowed from BEd in Primary Dzongkha). To be developed: *Introduction to World Religions and Belief Systems*.

**n. Open General Education Electives (24 credits)**



*Electives:* Choice from among the aforementioned modules (not already taken by the student), plus additional options: DEV414 Human Development (BA in Development Economics); PRD201 Public Speaking, CMS102 Photography and Visuals Lab (borrowed from BA in Mass Communication); ACT101 Financial Accounting (borrowed from BBA/BCom, for students with Class XII Maths); WHS101 Social Formations and Cultural Patterns of the World, AHS101 Growth and Spread of Buddhism in Asia (borrowed from BA in History and Dzongkha); AFD101 Introduction to Anthropology (borrowed from BA in Anthropology).

### Module descriptors for electives

For all modules indicated in the aforementioned list as Electives, the modules descriptors are to be referred from the respective definitive programme documents and corresponding programme handbooks of the home-base programmes of the modules, and are not reproduced herein. For RTC programmes, the full programme handbooks including the modules used as electives herein are available online; for elective modules borrowed from programmes at other colleges, the module descriptors are extracted and compiled, also available online:

(<https://my.rtc.bt/academics/programme-handbooks>)

### General education elective modules home-based in this programme

Two modules, FLT101 Financial Literacy, and DEV414 Human Development will be offered by the BA in Development Economics as general education electives: FLT101 for other programmes, and DEV414 for this and other programmes. This programme will be responsible for their health, standards, and effective delivery.

### Guidelines for General Education Modules and Electives Selection (approved by the 65th PQC)

- All slots in a programme structure indicated as 'elective' slots are subject to:
  - being fulfilled through validated modules actually offered by the College, as announced at least six months in advance (e.g., fixing by the end of one Spring semester what modules will be offered the following Spring semester);
  - verification by the programme committee as to what modules fulfil the requirement of the competency/breadth categories indicated, ensuring distinctness without overlap with other modules in the programme;
  - student choice, depending on the above two points and the student meeting any prerequisite requirements.
- The programme committee will maintain a pool of elective modules considered eligible for enrolment by the programme's students, updated every six months, and coordinate registration of student preferences for module selection six months in advance of the start of the semester that the modules will be taken. The module pool may include some borrowed from the University's programmes at other colleges, which provide added value
- In conjunction, all PLs will coordinate on this process twice a year to verify: what the current module offerings are from their own programmes; what their own programmes are capably resourced to offer as service modules to other programmes; what maximum additional student numbers can be accommodated in select modules offered to their own students in the upcoming semesters.

- The College shall endeavour to meet reasonable student demand for their preferred electives as capacity allows, e.g., offering multiple sections of more in-demand electives (min enrolment of 20, max section size of 40). The widest possible pool of elective offerings as confirmed by the programmes will be offered for preliminary selection by students, then narrowed down in a second round after eliminating offerings of the least popular options. Where not all students can be offered their first-choice electives, registration will be done on a merit basis.
- Electives can and should be scheduled in common time slots across weekly programme timetables so that students from different programmes are enrolled into sections together, for a better mingling of perspectives. The College will facilitate this centrally by declaring certain scheduled hours (8 per week) to be used for cross-programme elective module offerings if any.
- Open Elective slots: To fulfil these credits, students may choose any validated module being offered as an elective in programmes in the College, including from other defined General Education categories, subject to any aforementioned constraints and criteria. It is estimated and desirable that the portfolio of elective modules from across the various defined General Education categories and additional modules from the existing range of validated modules offered currently at the College, would generally be built by around 2-3 module offerings each from the different programmes at the College into the wider pool (and a select few from other programmes across the University that add value).

## **1.5 Learning and Teaching Approach**

1. The programme will focus on promoting creative and adaptive thinking, problem solving, collaborative learning, and it will use contact hours in the form of lectures and tutorials. In the upper years, most modules devote 2 hours per week of tutorials.
2. The programme will also use a wider range of teaching and learning methods including laboratory work, group learning, self-directed student-led inquiry and, tutorials. A combination of methods provides the main platform for student learning that enables them to achieve the intended learning outcomes of the programme in which a dialogic approach is emphasized.
3. In addition, the programme will use teaching learning approaches that uses new technology and media literacy- such as use of social media, blogs, podcasts, and statistical software.
4. The tutorials will be shaped as follows: Tutor + all students: students will work individually or in a group, but the class will be attended by all students; they will spend time on a focused task provided by the tutor and will generate an output-blogs, case studies, panel discussions, debates, report etc. Tutor + half students: In some discussion sections, the tutor will meet half the students at a time: students will work in groups, and will undertake interactive, teacher guided, collaborative study and present outputs. Each week, both the halves will attend the tutorials.
5. A major aim of this programme, with its associated award, is to achieve the stated learning outcomes of the programme and hence enable students to think like economists. In order to achieve this, the learning and teaching strategies of this programme will be based on building the basic principles of economics at stage one, with a particular focus on threshold concepts. These concepts lead to a transformed way of understanding economics, and may open up a new and previously inaccessible method of thinking about real-world economic issues. Intermediate analysis and rigour are developed in the stage two modules, whilst more specialist, advanced, evaluative and critical thinking is enhanced in the modules at the final stage of the programme.

6. Teaching methods will be used to encourage a more cooperative learning environment. For example, a learning community will be developed during the induction week viz. an 'Economics Society' for the first-year students, wherein economic games and experiments will be used with the aid of senior students. Other activities involve students working in small groups on both formative and summative assessments and innovative-use assessment in order to overcome potential free-riding problems that might occur. Co-operative learning will be encouraged both inside and outside the classroom with the use of assessed group work, inquiry-based learning and problem-based learning.
7. Inquiry-led learning is a major theme of the programme, which will increase incrementally from year 1 to year 3. It is introduced in year 1, particularly in introductory modules, where students start developing the inquiry-led skills. A greater degree of independence is will be encouraged in year 2 through the intermediate modules, and at years 3 and 4, students are expected to fully engage in inquiry-led learning, principally through the project work leading to an undergraduate research project report.
8. Regular, immediate and dialogic feedback will be a major element of the programme's teaching and learning strategy. Feedback will be offered at both module level and programme level through interactive workshops and lectures, office hours, personal tutorial sessions, and on-line. Formative feedback on summative continuous assessments will also stress on the feed forward for later assessments.
9. A student-led 'Rational Expectations Economics Society' facilitates interaction between students at different levels of the programme, staff-student interaction through academic and social events, student/staff seminars, field trips and visiting speakers. Additionally, greater opportunity for interaction with students from similar programmes from other universities in South Asia will be provided under the umbrella of the South Asian Economics Students Meet (SAESM).

## **1.6 Placements / Work-based Learning**

N/A

## **1.7 Assessment approach**

1. The assessment process is designed to ensure that it impartially measures student learning and achievement authentically throughout the programme. A range of different assessment approaches will be used across each of the module both to support the development of a variety of skills and knowledge, and to take into account the different learning styles of the students. In the assessments of group work and presentations, guidance will be given both on working as a group and on presentation skills before the assessment.
2. Detailed work plans prepared by tutors will ensure that the assessment workload is consistent with the assessment strategy for each module. A range of formative and summative assessment methods will be applied to address the issues of varying learning styles of students.
3. Deadlines for continuous assessment components are communicated well in advance and are included in the module work plan provided at the beginning of the module.
4. Assessment will be based on the standard Bloom's Taxonomy requirements so as to cover all the vital elements of learning. For each assessment, a rubric will be developed and be shared with the students.
5. An appreciation of the vital role that high-quality feedback plays in the learning process underpins the design of assessment activities. Early formative and summative assessments will be used particularly on stage one of the programme in order to ensure early (timely) feedback and guidance for students who are in transition. Focus will be given to immediate verbal feedback and more detailed written feedback within two weeks of

submission. Thus, regular immediate and dialogic feedback will be a major element of the teaching and learning strategy.

6. Students will be encouraged to use feedbacks to further improve their work.
7. The assessment method will also be used to develop the ability of the students to self-evaluate their own work and that of their peers. In order to achieve this, it is crucial that there is a shared understanding between the tutor and students of the standard of high-quality work – this will be established early in the programme.
8. This active-learning environment aims to also encourage students to gain a better understanding of the assessment criteria for their own work.
9. There will be an innovative and integrative assessment that provides unique training in research methods and techniques for economics undergraduates. Students are required to prepare and write an in-depth written report, present, and defend their research in front of their tutor and peers. This provides an opportunity for students to synthesize material from a range of modules in the programme. In addition, students write a critique of a fellow student's research, which requires them to have developed the ability during the programme to understand what is required of good research work.
10. Academic dishonesty should be addressed as per the provisions of section D4 of The Wheel of Academic Law. In particular, marks for plagiarized work should reflect gravity and extent of the plagiarism involved. In cases of substantially plagiarized work where no adequate attempt has been made to acknowledge sources, the work should be awarded zero.

## **1.8 Regulations**

### **1.8.1 Entry Requirements**

<b>Students' Background:</b>	<b>Min. Entrance Requirements / Eligibility Criteria</b>
Bhutanese Students	<ul style="list-style-type: none"> <li>● BHSEC Class XII pass (or equivalent for Bhutanese studying outside Bhutan)</li> <li>● 50% aggregate in best 4 subjects</li> <li>● 45% marks in Mathematics/Business Mathematics or Economics</li> <li>● Pass in Dzongkha*</li> </ul>
Non-Bhutanese**	<ul style="list-style-type: none"> <li>● Passing score on ISCE/BHSEC, or equivalent secondary education certificate</li> <li>● 45% marks in Mathematics/Business Mathematics or Economics</li> </ul>

\* Bhutanese students who have completed their class X & XII outside Bhutan, and who have not studied and passed Dzongkha at either level, will be required to sit for a Dzongkha Proficiency Test, designed & conducted by the Registrar's Office at Office of the Vice Chancellor, RUB. Such students will be offered admission only on successfully passing this competency test.

\*\* Note: DZG101: Dzongkha Communication will be substituted with a module from a collection of approved alternative modules for foreign students.

### **1.8.2 Assessment and Progression Requirements**

The criteria for progression from one semester to the next and final award criteria are as per the guidelines given under section D1 in The Wheel of Academic Law, RUB (latest version available at <http://www.rub.edu.bt/>), subject to any amendment or revision as made by the Academic Board of the University. Briefly:

Students must pass all modules in a RUB programme in order to graduate with a degree. To progress to the next semester, students must not fail more than two modules in a semester (i.e., students must pass at least three modules in a semester), or they are considered

semester failures, in which case they may repeat the failed semester, if they wish to, in the following year with the junior cohort. To pass a module, students must obtain a minimum mark of 50% overall and at least 40% in both the Total Continuous Assessment (CA) and Semester-End (SE) Examination components.

Any module failure must be cleared through reassessment or module repeat as set out in Section D1 of the Wheel of Academic Law of the RUB. A student may not register for more than two repeat modules in addition to the modules prescribed for the semester. An appropriate assessment will be tasked by the Programme Board of Examiners (PBoE) to the student upon failing a module, to be completed prior to the start of the next semester. Upon passing a failed module by reassessment, a student will be awarded a pass mark of 50%. A student may repeat a failed module any number of times within the normal registration period for completing an award, wherein he/she must meet all assessment requirements of the module, both CA and SE; the marks earned in a successful repeat are retained and not capped at 50%.

Overall marks (given as percentages) are aggregated in proportion to the module credit weight within a particular year. The final percentage mark over all four years of the programme is a weighted average of aggregate marks in each year in the ratio of 10:20:30:40 (1<sup>st</sup> year: 2<sup>nd</sup> year: 3<sup>rd</sup> year: 4<sup>th</sup> year).

The Programme Board of Examiners (PBoE) is responsible for the overall assessment of students, for making a decision on the progression of students at each stage of the programme, and for making a decision on the award to be granted to the students on completion of the programme (see below, section on “Programme Management”).

## **2 Module Descriptors**

**Module Code and Title:** CET101 Introductory Microeconomics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** This module aims to provide basic theoretical foundation in microeconomics, and enable students to analyse rational choices made by the households and firms operating under different market structures.

**Learning outcomes – On completion of the module, students will be able to:**

1. Examine the rationale of implicit and explicit assumptions in microeconomic models.
2. Apply graphical methods to find the solutions of basic microeconomic problems.
3. Analyse the role of market mechanism in allocation of resources.
4. Apply the indifference curve approach to study consumer’s preferences.
5. Examine the efficiency cost of government interventions in the market.
6. Describe the price decomposition effects for normal, inferior and Giffen goods.
7. Differentiate between law of variable proportion and returns to scale
8. Calculate various types of costs of production facing a firm.
9. Analyse the optimizing behaviour of firms under different market structures.
10. Determine the wages and rent under different types of commodity and factor markets.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	60
	Tutorials	0.5	

	Classroom workshops	0.5	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

### Assessment Approach:

#### A. Assignment: 15 Marks

Students will submit an individual assignment, before midterm, to evaluate any theoretical model covered in units I, II, III. The assignment should have a maximum limit of 600-750 words.

- 3 Identification of the key assumptions, both explicit and implicit
- 6 Logical analysis of the relevance of each assumption
- 5 Explain the limitations of the model
- 1 Appropriate use of technical terms

#### B. Class Tests: 15 Marks

Two written tests will be conducted (worth 7.5 marks each) that will comprise 30 min duration and cover units I and II, before midterm, and, units III and IV, after midterm. The tests will have a maximum of 5 questions (two questions on conceptual aspects and three questions on problem-solving).

#### C. Classroom Experiment: 15 Marks

In groups of 4, students will complete an applied task related to utility maximizing behaviour by individuals, or profit maximizing behaviour of firms.

- 1 Identification of data needed
- 5 Analytical Methods (Mathematical or Graphical, whatever applicable)
- 3 Identification of assumptions
- 6 Result analysis

#### D. Midterm Examination: 15 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### E. Semester-End Examination: 40 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Marks
A. Assignment	1	15
B. Class Tests	2	15 (7.5 each)
C. Classroom experiment	1	15
D. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>60</b>
<b>Semester-End Examination (SE)</b>		<b>40</b>

**Pre-requisites:** None

**Subject matter:**

Focus should only be towards graphical approaches/simple mathematical approaches for solution generation, avoiding the use of calculus.

### **Unit I: Exploring the core subject matter of Economics**

- 1.1. The scope and method of economics; scarcity and choice
- 1.2. Questions of what, how and for whom to produce
- 1.3. The basic competitive model; prices, property rights and profits
- 1.4. Incentives and information, role of information in market economy
- 1.5. Rationing; opportunity sets; economic systems: Capitalist, Socialist and Mixed Economies
- 1.6. Reading and working with graphs: Understanding the axes, interrelationship between two variables.

### **Unit II: Theory of Demand and Supply**

- 2.1. Theory of Demand: Law, Determinants, Demand Schedule and Demand Curve, Individual and Market Demand Curves, Change in Quantity Demanded and Change in Demand
- 2.2. The elasticity of Demand: Concept of elasticity- price, income, cross and elasticity of substitution and their applications
- 2.3. Theory of Supply: Law, Determinants, Supply Schedule and Supply Curves, Individual and Market Supply Curves, Change in Quantity Supplied and Change in Supply
- 2.4. How Markets Work: Market equilibrium, Consumers and Producers' Surplus
- 2.5. Government Interventions, and Other Market Distortions and Efficiency Cost
- 2.6. Role of Prices in Resource Allocation

### **Unit III: Household decisions**

- 3.1. Preference Ordering, Utility Functions and Their Representation with Indifference Curves, Marginal Rate of Substitution
- 3.2. Budget constraint, Budget Line, Pivot and Shift in the Budget Line
- 3.3. Consumer's Equilibrium" Interior Optimum Equilibrium, Boundary Solution
- 3.4. Impacts of the Changes in Consumer's Budget Constraint: Income and Price Effects.
- 3.5. Decomposition of Price Effect using Hicks and Slutsky approaches, Compensating Variation in Income and Equivalent Variation in Income
- 3.6. The optimum choice between income and leisure

### **Unit IV: Behaviour of Firms**

- 4.1. Production: Short Run and the Law of Variable Proportions, Relationship between Total, Average and Marginal Product, long run and Returns to Scale, Concept of Isoquants
- 4.2. Types of costs: short-run and long-run costs: Total Cost, Average Cost, Average Variable Cost, Average Fixed Cost and Marginal Cost
- 4.3. Overview of Market Classification: Perfect Competition and Imperfect Competition
- 4.4. Perfect Competition: Structure, features, and derivation of Total Revenue, Marginal Revenue and Average Revenues curves of a competitive firm
- 4.5. Profit Maximising Conditions for a Competitive Firm in the Short and Long Run (graphical solution)
- 4.6. Breakeven and Shutdown Points for a competitive firm
- 4.7. Derivation of Short Run Supply Curve of a Competitive Firm

### **Unit V: Imperfect Market Structure**

- 5.1. Monopoly: Features, Characteristics, derivation of Total Revenue, Marginal Revenue and Average Revenue curves
- 5.2. Profit Maximising condition for a monopolist (use graphical approach only)
- 5.3. Other forms of Imperfect competition: monopolistic competition, oligopoly and duopoly (the main features of these markets)

### **Unit VI: Market for Inputs**

- 6.1. Capital, Labour and Land Markets, the response of the entrepreneurs

- 6.2. Concept of Derived Demand
- 6.3. Input productivity, Value of Marginal Productivity, And Marginal Revenue Product, And Input Demand Curves
- 6.4. Theory of Rent: Ricardian Theory, Scarcity Rent, Differential Rent and Modern Theory of Rent

**Reading List:**

**Essential Reading**

Case, K.E., Fair, R.C. and Oster, A. C. (2017). *Principles of Economics*. (12<sup>th</sup> Edition). India: Pearson Education.

Koutsoyiannis, A. (2003). *Modern Microeconomics*. U.K. Palgrave Macmillan

Mankiw, N.G. (2020). *Principles of Microeconomics*. India: Cengage Learning India Private Limited.

Pindyck, R., and Rubinfeld D. (2018). *Microeconomics*. (8<sup>th</sup> Ed). India: Pearson.

**Additional Reading**

Krugman, P, R., and Wells R (2010), *Microeconomics: (2<sup>nd</sup> Edition.)* U.S.A: Worth Publishers.

Maddala, G.S and Miller, E (2017). *Microeconomics: Theory and Applications*. India. Mc-Graw Hill Education

Stiglitz, J.E. & Walsh C.E. (2007). *Economics*. (4<sup>th</sup> Edition) New York: W.W. Norton & Company, Inc.

**Date:** June 2022

**Module Code and Title:** CET102 Introductory Macroeconomics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** The principal objective of this module is to help students learn basic macroeconomic principles, concepts, and apply them to a variety of economic questions and issues. It provides integrated insights on classical, Keynesian and monetarist approaches.

**Learning outcomes – On completion of the module, students will be able to:**

1. Apply a macroeconomic model to a given situation.
2. Employ the basics of comparative statics analysis to describe changes on endogenous variable.
3. Apply various measures to estimate national income of a country.
4. Apply the conceptual framework of multiplier under various assumptions.
5. Analyse alternative inflationary situations.
6. Make effective arguments on the debates pertaining to monetarism and structuralism
7. Debate Keynesian and Classical approaches.
8. Apply IS-LM model to judge policy efficacy.
9. Analyse the effects of macroeconomic policies.
10. Relate the IS-LM analysis to the AD framework.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	60
	Tutorials and group work	1	
	Written assignments	1	60



Independent study	Reading and review of class materials, VLE discussions	3	
Total			120

### Assessment Approach:

#### A. Assignments: 20 Marks.

Each student will write two assignments requiring application/analysis of an existing macroeconomic variable/model/policy, based on any real/hypothetical macroeconomic situation, with or without use of data. Each assignment, worth 10 marks, should have a maximum limit of 750-900 words.

- 1 Statement of a problem
- 2 Analytical frameworks
- 5 Critical reviews
- 2 Conclusion

#### B. Classroom Experiment: 10 Marks.

In groups of 4 students will examine/compare the effects of different government policies using an IS-LM framework.

- 1 Identification of data needed
- 2 Identify the underlying assumptions
- 3 Comparative static analysis using proper tool
- 4 Logical explanations of the findings

#### C. Class Test: 10 Marks.

A written test of 45 minutes duration will be conducted covering III and IV. The tests will contain 5 problem solving questions.

#### D. Midterm Examination: 20 Marks.

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### E. Semester-End Examination: 40 Marks.

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Marks
A. Assignments	2	20
B. Classroom experiment	1	10
C. Class test	1	10
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>60</b>
<b>Semester-End Examination (SE)</b>		<b>40</b>

**Pre-requisites:** None

**Subject matter:**

#### Unit I: Introduction to Macroeconomics

- 1.1. Building basic macroeconomic models- describe implicit and explicit assumptions.
- 1.2. Concept of production boundary, exclusion and inclusion from NI estimates, circular flow of income

- 1.3. Concepts of stocks and flows and their interrelationships; statics and comparative statics
- 1.4. Measurement of the gross domestic product; Income Method, Expenditure Method, and Value-Added Method; real versus nominal GDP; price indices and GDP deflator
- 1.5. Concepts of Gross National Product (GNP) and Gross Domestic Product (GDP) at market prices and factor costs, Net National Product (NNP) and Net Domestic Product (NDP) at market prices and factor costs, private income, personal income, and personal disposable income, per-capita income
- 1.6. Labour market dynamics: employment cycle and natural rate of unemployment, job search and frictional unemployment, wage rigidity and structural unemployment, wait unemployment
- 1.7. Minimum wage, collective bargaining, efficiency wage, patterns of unemployment
- 1.8. Describe and make simple empirical investigation on Okun's law

### **Unit II: Business Cycles and Inflation**

- 2.1. Understanding business cycles- Inflation, Boom, Disinflation, recession, depression, recovery
- 2.2. Deflation and liquidity trap
- 2.3. Types of inflation: cost-push inflation, demand-pull inflation, hyperinflation
- 2.4. Inflation in the developing nations: Structuralist vs Monetarist view
- 2.5. Inflation and Interest-rate, Fischer Effect.
- 2.6. Costs of inflation; cost of expected and unexpected inflation
- 2.7. Anti-inflationary policies, disinflation and the sacrifice ratio
- 2.8. Concepts of business cycle: upswing, peak, downturn, recession, trough and recovery, long run growth path of an economy
- 2.9. The cyclical behaviour of economic variables: classification of variables according to direction and timing- pro-cyclical and counter cyclical variables, leading, concurrent and lagging variables
- 2.10. Great depression, American Business Cycle Facts- An overview
- 2.11. Leading indicators of Economic Fluctuations

### **Unit III: Keynesian Model of Income determination**

- 3.1. Determination of equilibrium level of income and employment in classical theory, Neutrality of Money and classical dichotomy, Classical theory of interest Rate
- 3.2. Keynesian theory of consumption, concepts of MPC and APC, their relationship
- 3.3. Keynesian Consumption Function and Kuznets puzzle, explanation of the puzzle
- 3.4. Role of aggregate demand, Keynesian Model of equilibrium Income determination, Saving-Investment Identity, Paradox of Thrift
- 3.5. Role of the multiplier, multiplier process in Keynesian Model
- 3.6. Introduction of the expansionary fiscal policies and derivation of multipliers- public expenditure multiplier, tax multiplier (including both lump sum and proportional tax), and balanced budget multiplier
- 3.7. Keynesian model of open economy, marginal propensity to invest and foreign trade multiplier
- 3.8. Limitation of the multiplier process

### **Unit IV: IS-LM Framework**

- 4.1. Commodity market equilibrium and derivation of IS curve, properties of IS curve.
- 4.2. Money market equilibrium and derivation of LM curve, properties of LM curve
- 4.3. Simultaneous equilibrium in commodity and money markets, zones of disequilibrium, Hicks-Hansen Analysis of stability, monetary transmission mechanism
- 4.4. Fiscal and monetary policies: multipliers (government expenditure multiplier, tax multiplier, balanced-budget multiplier and money multiplier) - effects on income and interest rate, crowding out effect

- 4.5. Factors that affect the effectiveness of fiscal and monetary policies
- 4.6. Liquidity trap and policy effectiveness
- 4.7. Monetary accommodation and policy mix
- 4.8. Derivation of the AD curve from IS-LM model, properties of aggregate demand curve

### Reading List:

#### Essential Reading

- Blanchard, O. (2017). *Macroeconomics* (6<sup>th</sup> ed.). India. Pearson Education.
- Dornbusch, R., Fischer, S. & Startz, R. (2018). *Macroeconomics*, (12<sup>th</sup> ed). India. McGraw Hill.
- Froyen, R.T. (2013). *Macroeconomics: Theories and Policies*. (10<sup>th</sup> ed.). India. Pearson Education.
- Mankiw, N.G., and Taylor, M.P. (2017). *Macroeconomics*. (4<sup>th</sup> ed.) India. Cengage Learning India Pvt. Ltd.
- Abel, A.B., Bernanke, B.S. and Croushore, D (2020). *Macroeconomics*, (10<sup>th</sup> ed). United Kingdom Pearson.

#### Additional Reading

- D'Souza, E. (2009). *Macroeconomics*. Pearson Education.
- IMF (2009). *System of National Income Accounts*. IMF Publication.
- Krugman, P., Obstfeld, M. & Melitz, M. (2012). *International Economics*. India. Pearson Education.
- Minhas, B S (2002). *National Income Accounts and Data System*. Oxford University Press.

Date: June 2022

**Module Code and Title:** MTE101 Mathematics for Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Tshering Lhamo Dukpa

**General objective:** The module aims to provide the knowledge of basic mathematics that enables the study of economic theory, and its application in core theoretical modules such as microeconomics, and macroeconomics. In this module, the students will learn and apply mathematical tools such as functions, differential equations, integration, optimisation and matrices.

#### Learning outcomes – On completion of the module, students will be able to:

1. Apply the concepts of functions, continuity and limit.
2. Interpret slope of the curves
3. Model economic scenario as a mathematical problem
4. Calculate the derivatives of a function and extreme point.
5. Solve unconstrained optimization problems involving functions of a single or multiple variables.
6. Apply the notions of a partial derivative of a function of several variables.
7. Solve matrix operations and systems of linear equations.
8. Apply the Leontief input-output model to solve real-world problems.

#### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60

	Tutorials and group work	2	
Independent study	Written assignments	1	60
	Problem solving	3	
Total			120

### Assessment Approach:

#### A. Assignment: 15 Marks

Each student will submit an assignment before the midterm examination. It will test problem-solving skills, ability to identify a problem, and decide why and how a particular mathematical device can be applied to find solution for economic problems. The assignment will have maximum limit of 200-300 words.

- 3 Ability to understand a problem
- 3 Identify appropriate mathematical device to solve the problem
- 6 Finding solution
- 3 Interpretation of the findings

#### B. Class Tests: 20 Marks

Two written tests will be conducted (each worth 10 marks), that will comprise 45 minutes duration and cover units II and IV. The tests will contain 4 questions- 2 on the conceptual understanding, and 2 on problem solving.

#### C. Group Work: 10 Marks

Group size: 4-6 students. Audio-Video presentations on the task to test conceptual understanding of given mathematical concept, and identify economic situations in which they can be applied. The group members will work on one component of the problem, and provide a consolidated work. The assignment should have a maximum limit of 400-500 words.

- 1 Group work plan
- 3 Individual work
- 2 Review of individual work by team members
- 4 Synthesis of individual work in a joint report

#### D. Midterm Examination: 15 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### E. Semester-End Examination: 40 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Marks
Assignment	1	15
Class Tests	2	20 (10 each)
Group Work	1	10
Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>60</b>
<b>Semester-End Examination (SE)</b>		<b>40</b>

**Pre-requisites:** None

## **Subject matter:**

### **Unit I: Functions of one real variable**

(Apply the concepts of demand and supply functions, consumption function and growth rates)

- 1.1. Review of graphs of common functions
- 1.2. Elementary types of functions: linear, quadratic, polynomial, power, exponential, logarithmic
- 1.3. Continuous functions: characterizations, properties with respect to various operations and applications
- 1.4. Differentiable functions: characterizations, properties with respect to various operations and applications; second and higher order derivatives: properties and applications

### **Unit II: Single variable differentiation**

(Apply cost, revenue and profit functions)

- 2.1. Review of slope calculation and interpretation: slope of tangent and derivatives, rate of change and their economic significance
- 2.2. Simple rules for differentiation of sums, products and quotients
- 2.3. Second and higher order differentiation: generalised power rule, Chain rule, polynomial approximations, elasticity
- 2.4. Limit, continuity, continuity and differentiation

### **Unit III: Difference equations**

(Apply concepts of growth models and market equilibrium)

- 3.1. First order difference equations: existence and uniqueness theorem, with constant coefficient
- 3.2. Compound interest, present discounted values, mortgage repayments
- 3.3. Linear equations with variable coefficient
- 3.4. Second order equations, with constant coefficients, stability

### **Unit IV: Optimization**

(Apply the concepts of consumer and producer behaviour)

- 5.1. Single variable Optimisation: geometric properties of functions, first derivative test, convex functions, their characterizations and applications
- 5.2. Multivariable optimisation: local and global optima: value theorem, geometric characterizations (concave/convex functions, conditions for concavity /convexity, quasi concave/convex functions)

### **Unit V: Integration of functions**

(Apply the concept of income distribution)

- 6.1. Areas under curves, case when  $f(x)$  has a negative value
- 6.2. Indefinite integrals
- 6.3. The definite integral, integration by parts, Integration by substitution, economic applications of integrals

### **Unit VI: Matrix**

(Apply IS-LM model)

- 7.1. Linear transformations: properties, matrix representations and elementary operations
- 7.2. Systems of linear equations: properties of their solution sets; determinants: characterization, properties and applications
- 7.3. Leontief Input-output model

## **Reading List:**

### **Essential Reading**

- Chiang, A.C. (2017). *Fundamental Methods of Mathematical Economics*. New York: McGraw Hill.
- Hoy, M; Livernois, J; McKenna, C; Rees, R and Stengos, T (2011). *Mathematics for Economics*. MIT press
- Simon, K.P. & Blume, L. (1994). *Mathematics for Economists*. W.W. Norton, New York. London.
- Sydsaeter, K., & Hammond, P. (2018). *Mathematics for Economic Analysis*. Delhi: Pearson Educational Asia.

### **Additional Reading**

- Allen, R.G.D. (1974). *Mathematical methods for Economics*. McGraw Hill.
- Rosser, M. (1993). *Basic Mathematics for Economists* (1st ed.). Routledge.
- Warner, S. & Costenoble, S.R. (2010). *Finite Mathematics and Applied Calculus*. Thomson, Brooks/Cole.

**Date:** June 2022

<b>Module Code and Title:</b>	<b>EAP101 Intermediate English for Academic Purposes</b>
<b>Programme:</b>	BA in English Studies (borrowed)
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Dechen Pelden (Coordinator), Sangay C. Wangchuk, Mohan Rai, Palden Wangmo and Ruma Tamang.

**General objective:** EAP101 is the first part of a two-semester series that aims to develop abilities in reading, writing, listening, and speaking in an academic context to support students' learning through their degree studies. This module includes topics that are relevant to students' specific subject areas, which will help students apply the skills learned in context of their respective fields of study.

### **Learning outcomes – On completion of the module, students will be able to:**

#### Reading Skills

1. Closely read key terms and guess meanings in context, key information, ideas and concepts.
2. Skim and scan relevant sources for essays.
3. Analyse information in more complex texts.
4. Parse essay questions to give answers.

#### Writing Skills

1. Outline an essay.
2. Organize ideas by using linkers, and signposts.
3. Draft and build arguments.
4. Paraphrase written texts.
5. Create a bibliography.

#### Listening and Speaking Skills

1. Listen for gist and details through scan listening and interactive listening.
2. Interview subjects to write short reports.
3. Express one's point of view in a discussion.
4. Describe the process narrated in a pre-recorded audio clip.
5. Participate in a panel discussion.

#### Grammar and Vocabulary

1. Explain targeted grammatical structures in both spoken and written forms.
2. Apply targeted grammatical structures appropriately in both written and oral production.

3. Self-correct while using targeted grammatical structures.

**Learning and Teaching Approach:**

Type	Approach	Hours per Week	Total Credit Hours
Contact	Lecture, discussions, and practice (2 x 2 hr). In-class time in each block is used in a workshop style with a review of prior topics and introduction to a new topic, at least one hour on practice, and debrief / reflection / assessment time at the end. Each major unit includes some assessment involving approximately 30 min of in-class time per week on average. Students are expected to use a significant portion of the total in-class time on practice with selected exercises.	4	60
Independent study	Writing assignments and Learning Journal VLE discussions	4	60
	Reading and review of class materials		
Total			120

**Assessment Approach:**

A. Note-Taking Exercise 5%

Each student has to maintain class notes containing series of exercises from both within and outside the class. It will be assessed before the mid-semester.

'Note-Taking Exercise' will be assessed using the following rubric:

Relevance and Completeness: 10 marks

Coherence and Organisation: 10 marks

Language and clarity: 10 marks

B. VLE Discussion 10%

Students will participate in two VLE discussions on topics assigned by the tutor. It will be conducted one before mid-semester and one after mid semester.

Each task will be assessed on 5%, and will be based on the following rubric:

Quality of Discussion: 12 marks

Interaction with peers: 4 marks

Language and Grammar: 4 marks

C. Learning Journal: 20%

Students will have to maintain a journal incorporating two entries of 250-350 words each related to discipline-specific topics. Each of the two entries will be submitted as first and final drafts. The first will be assessed for a total weightage of 7%, and the second 13%.

The entries will be assessed as per the Learning Journal rubric based on the following rubric:

Critical Thinking: 10 marks

Personal Reflection: 10 marks

Language and Grammar: 10 marks

D. Panel Discussion: 20%

Each student will speak for 5-7 minutes in a panel discussion. Students will be assigned topics related to their discipline, or an evidence-based subject of their interest. This assessment will be divided into two components: one pre-discussion meeting and the final panel discussion. In the pre-discussion meeting, students will

meet the tutor to update on the progress, confer on the direction of the presentation, and set goals if applicable.

The pre-discussion meeting will be evaluated on 3% and the final panel discussion will on 17%.

The pre-discussion rubric will be based on the following rubric:

Completion of task: 5 marks

Planning and preparedness: 10 marks

The final panel discussion will be based on the following rubric:

Relevance of argument: 30 marks

Coherence and logical flow of ideas: 30 marks

Language and grammar: 30 marks

Respect for the other panellists' views: 10 marks

**E. Written assignment: 20%**

The student will write a 750 – 1000-word reflective academic essay on the topics assigned by the tutor. This is not expected to be an extensively researched essay. The assignment will be written in two drafts: the first draft will be worth 5%; and the final draft will be worth 10% with 5% on the improvement on the first draft.

Both drafts will be evaluated using the following criteria:

Depth of reflection: 35 marks

Critical thinking: 25 marks

Use of sources: 20 marks

Language and grammar: 20 marks

Improvement on feedback will be evaluated using the following rubric:

Marginal improvement: 0 – 49 marks

Satisfactory improvement: 50 – 59 marks

Significant and appropriate improvement: 60 – 74 marks

Significant improvement beyond feedback given: 75 – 100 marks

**F. Class Tests: 25%**

Three class tests (5%+10%+10%) of 60 minutes will be held within class hours, each covering approximately 3-4 weeks of subject matter. These tests should be based on the four skills.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Weighting
A. Note-Taking Exercise	1	5%
B. VLE Discussion	2	10%
C. Learning journal	2	20%
D. Presentation	1	20%
E. Written assignment	1	20%
F. Class tests	3	25%
<b>Total Continuous Assessment (CA)</b>		<b>100%</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Academic orientation**

- 1.1. Setting study goals in academic English
- 1.2. Focusing on academic study
- 1.3. Reading and writing in academic English
- 1.4. Attending lectures



- 1.5. Studying independently on an academic English course
- 1.6. Thinking about the role of language in academic English
- 1.7. Plagiarism and how to avoid it

**Unit II: Topic/context: Problems in the natural world**

- 2.1. Reading: Understanding essay questions; Identifying the relevance of the text; Grammar in context: noun phrases
- 2.2. Listening and speaking: Making sure you have understood
- 2.3. Writing: Paragraph building; Grammar in context: present perfect
- 2.4. Grammar and vocabulary practice: Word families; Quantifying expressions; Noun phrases; Clause structure; Present perfect and past simple

**Unit III: Lecture Skills I**

**(Lecture Skills A and B)**

- 3.1. Preparing for lectures: Talking about products; Vocabulary for the context
- 3.2. Preparing for lectures: Chemical elements; predicting information from visuals; vocabulary for the context.
- 3.3. Listening: Listening for gist and detail
- 3.4. Language focus: If structures 1; Vocabulary: key expressions; Pronunciation: emphasising words
- 3.5. Follow-up: Organising notes; Further listening

**Unit IV: Topic/context: Indications and trends**

- 4.1. Reading: Deciding what to read for an essay; Approaches to note-taking 1; Grammar in context: past perfect
- 4.2. Listening and speaking: Giving advice; Asking for help
- 4.3. Writing: Planning the main paragraphs of an essay; Writing a short report; Vocabulary in context: language for describing trends
- 4.4. Grammar and vocabulary practice: Corpus language; Past simple; Past perfect; Language to describe statistics; Words for economic graphs

**Unit V: Topic/context: The information age**

- 5.1. Reading: Interactive reading Grammar in context: phrases of frequency Reading for the main ideas in a text; Grammar in context: prepositional phrases
- 5.2. Listening and speaking: Outlining issues and putting forward your point of view
- 5.3. Writing: Drafting and building arguments
- 5.4. Grammar and vocabulary practice: Word building; Noun phrases; Phrases of frequency; Vocabulary families; Prepositional phrases; Reporting verbs

**Unit VI: Topic/context: On budget**

- 6.1. Reading: Reading for key information and concepts; Grammar in context: expressing different levels of certainty; Vocabulary in context: language to define terms
- 6.2. Listening and speaking: Describing a process in a seminar presentation; Giving a presentation: describing a process
- 6.3. Writing: Drafting and revising content
- 6.4. Grammar and vocabulary practice: Words associated with planning; Language of possibility; Definitions; Language of presentations; Word families from the Academic Word List

**Unit VII: Topic/context: Being objective**

- 7.1. Reading: Close reading for key ideas; Analysing information in more complex texts; Grammar in context: modal expressions; Grammar in context: relative clauses
- 7.2. Listening and speaking: Agreeing and disagreeing
- 7.3. Writing: Paraphrasing information for essays; Avoiding plagiarism; Linking words 2

- 7.4. Grammar and vocabulary practice: Verb and noun collocations; Language of agreement; Modal expressions; Relative clauses; Linking words and phrases

#### **Unit VIII: Topic/context: Sensing and understanding**

- 8.1. Reading: Text organisation 1; Grammar in context: passive constructions; Vocabulary in context: word building
- 8.2. Listening and speaking: Signposting in seminar presentations; Giving a presentation
- 8.3. Writing: Linking words 3; Grammar in context: using the passive to manage information in texts
- 8.4. Grammar and vocabulary practice: Art and design vocabulary; Passive forms; Perceive word family; Signposting in seminar presentations; Linking words

#### **Unit IX: IT issues**

- 9.1. Reading: Text organisation 2; Grammar in context: hedging language
- 9.2. Listening and speaking: Problem–solution patterns and repair strategies
- 9.3. Writing: Generating ideas; Grammar in context: cohesive devices; In-text referencing (particular focus on APA)
- 9.4. Grammar and vocabulary practice: Subordination; Crime vocabulary; Hedging language; Cohesion

#### **Unit X: Topic/context: Culture shock**

- 10.1. Reading: Text organisation 3; Grammar in context: reduced relative clauses
- 10.2. Listening and speaking: Concluding a presentation
- 10.3. Writing: Planning the overall shape of an essay; Reading for relevant information; Writing the conclusion; Creating a bibliography (APA style references list – basic rules and format for end-text references for different types of sources)
- 10.4. Grammar and vocabulary practice: Word building; Reduced relative clauses; Participle clauses; Compound words

#### **Unit XI Lecture Skills II**

##### **(Lecture Skills C)**

- 11.1. Preparing for lectures: Thinking about the purposes of lectures
- 11.2. Listening: Understanding evaluations; Understanding lists
- 11.3. Language focus: Noticing differences in the language of lectures and academic writing; Noticing prominent words
- 11.4. Follow-up: Taking notes: annotating; Reconstructing your notes

##### **(Lecture Skills D)**

- 11.5. Preparing for lectures: Building basic information
- 11.6. Listening: Understanding the relationship between parts of the lecture; Understanding descriptions of processes
- 11.7. Language focus: Understanding vague language
- 11.8. Follow-up: Listening for a lecture summary; Comparing notes

##### **(Lecture Skills E)**

- 11.9. Preparing for lectures: Overcoming problems in listening to lectures
- 11.10. Listening: Understanding specialised terms; Understanding reasons
- 11.11. Language focus: Understanding signals of incomplete information; Understanding forward and backward reference
- 11.12. Follow-up: Listening and annotating slides; Writing up your notes; Overcoming problems

#### **Reading List:**

##### **Essential reading**

Paterson, K. & Wedge, R. (2013). *Oxford grammar for EAP*. Oxford University Press.  
 Thaine, C. & McCarthy, M. (2014). *Cambridge academic English – An integrated skills course for EAP: B1+ (Intermediate) student's book*. Cambridge University Press.

### Additional reading

Hacker, D. (2021). *Writer's reference* (10th ed.). Bedford/St. Martin's.  
 Hyland, K. (2006). *English for academic purposes*. Routledge.

**Date:** June 2022

**Module Code and Title:** IPS101 IT and Basic Problem Solving  
**Programme:** BSc in Environmental Management (borrowed)  
**Credit:** 12  
**Module Tutor:** Suchibrota Dutta

**General objective:** This module aims to develop a working facility with Office productivity tools (e.g., Microsoft Word, Excel, and Power Point) including online tools such as Google suite and Google docs. The module will also develop skill in basic structuring of problems, applying common sense logic and reasoning to problem solving, using appropriate tools to solve problems, and presenting findings in a clear and concise manner.

### Learning outcomes – On completion of the module, students will be able to:

1. Create typed documents using word processing software with proper formatting, style, spacing, pagination.
2. Create slide presentations that include text, graphics, and transitions applying good design practices
3. Effectively present information through slide shows.
4. Organize tabular data in spreadsheet software.
5. Generate basic charts (line graphs, bar graphs, pie charts, scatter plots) appropriate for different kinds of data in spreadsheet software.
6. Find data relevant to a problem.
7. Assess the quality and reliability of data.
8. Structure common mathematical problems.
9. Solve common mathematical problems on spreadsheet software using formulas.
10. Approximate quantitative answers.
11. Judge reasonableness for computed answers.
12. Structure more complex problems, including asking the relevant questions, gathering appropriate data, analysing that data, and presenting findings.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Combined lecture and lab sessions	4	60
Independent study	Practical assignments and practice	3	60
	Reading and review of class materials	1	
Total			120

### Assessment Approach:

- A. Written class test (theory): 10%

Students will take a written class test of 50 min duration covering approximately 2 weeks of subject matter on basic aspects of computer usage and internet usage for accessing information.

3% Introduction to computers (types of computers, types of digital communications, input and output devices, memory and storage, etc.)

4% Introduction to Windows (Launching software; Navigating, managing, and creating files and folders, shortcut keys), and basic internet concepts

3% Basic online tools - Google sheets, google docs, google drive, etc.

**B. Practical class tests: 40%**

Students will undertake 4 x 1 hr in-class practical tests incorporating small elements of Units I-III (e.g., data searches, re-write letter, short Excel problems, presenting findings), each worth 10% and focusing on different tools (1 test with Word, 2 tests with Excel, 1 test with Powerpoint).

**C. Practical assignments: 20%**

Students will do 1 word processing (10%) and 1 spreadsheet (10%) assignment achieving interrelated tasks throughout Units I-III.

Written report using Word (500 words) – 10%

1% Cover Page

2% Content: Reliability, effectiveness, and accuracy of the content

6% Document guidelines incorporation: Instructions for completing the assignment are followed along with incorporating all required elements, such as formatting, style, spacing, etc.

1% Conclusion and References

Preparation of a calculation spreadsheet using Excel – 10%

1% Data Entry

5% Identifying and solving the problem using appropriate formulas. Summarizing the data and exploring more complex data with Pivot Tables/charts, etc.

3% Using functions for decision-making and validating data, and visually presenting the output

1% Organization/ Formatting

**D. Midterm examination: 15%**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Project: 15%**

Each student will identify a more complex problem he/she wants to analyse, and then follow a standard workflow: Identify the issues to be addressed; Structure questions to highlight these issues and draw conclusions; Determine the process and limitations for obtaining survey answers (if relevant); Compile data while ensuring accuracy; Structure the data analysis in Excel; Interpret quantitative results and draw conclusions; Assess the reliability and limitations of results.

Students will then prepare a written report in Word/Google docs (400-600 words) incorporating spreadsheet tables and charts, and presentation of 10 min duration using Powerpoint or Google slides (~10 slides).

6% Documentation Format

Cover Page and Introduction – 1%

Problem analysis – 2%

Structure of document and formatting – 3%

- 4% Presentation  
Slides include text, graphics, and transitions applying good design practices - 2%  
Effective delivery of content – 2%
- 5% Spreadsheet work  
Solution – An appropriate response to a challenge or a problem - 2%  
Computation and Execution – Aspects of the student's solution are accurate without logical errors – 2%  
Techniques – Student selects a variety of appropriate techniques and tools to analyze and generalize the problem, using formulas, graphs, data validation, grouping, etc. - 1%

#### Overview of assessment approaches and marks

Areas of assignments	Quantity	Marks
A. Written class test (theory)	1	10%
B. Practical class tests	4	40%
C. Practical assignments	2	20%
D. Midterm examination	1	15%
E. Final project	1	15%
<b>Total Continuous Assessment (CA)</b>		<b>100%</b>

**Pre-requisites:** None

**Subject matter:**

#### Unit I: Basics of IT for communication and information

- 1.1. Computer basics: types of computers, types of digital communications, input and output devices, memory and storage
- 1.2. Introduction to the Windows operating system environment: launching software; navigating, managing, and creating files and folders, common shortcut keys
- 1.3. Computer tools for written communications
  - 1.3.1. Basics of word processing (Word and Google docs)
  - 1.3.2. Basics of Internet
  - 1.3.3. File folders; search
  - 1.3.4. Basics of using online tools and applications for productivity, e.g., Google suite (using e-mail, storing files, google docs)
- 1.4. Finding and assessing information: Internet search (e.g., Google); Sifting through / assessing quality of information; quality of the source; Categories of information/issues with each
  - 1.4.1. Facts: Reliability of the source; crosschecking different sources
  - 1.4.2. Data: Varies with the question being asked; different perspectives
  - 1.4.3. Opinion: No single answer; varies with source and perspective; different uses in different contexts
- 1.5. Presenting findings
  - 1.5.1. Written reports using Word or Google docs (introduction, key issues, analysis, conclusions, actions)
  - 1.5.2. Presentation using Powerpoint or similar online tools: Powerpoint basics (clear concise slides; text indicating major points only, effective use of graphics)

#### Unit II: Organizing data and solving problems using spreadsheets

- 2.1. Introduction to Excel: types of basic problems that can be solved
  - 2.1.1. Calculation of a specific answer to a narrow problem (e.g., average and weighted averages, Min/Max, Count, Present value, IRR)
  - 2.1.2. Statistical overview of a dataset

- 2.2. Basic workflow for problem solving: Identifying different types of problems; setting up problem/data on Excel; Assessing the correctness of results
  - 2.2.1. Sample types of problems that can be solved with basic math of general relevance
    - 2.2.1.1. Budgeting and basic finance (money and consumer math): Account balances, savings and loan repayment calculations based on simple interest; estimating returns on investment, doubling time
    - 2.2.1.2. Percentages: % increases, decreases, commissions, discounts
    - 2.2.1.3. Weighted averages, e.g., marks calculation
    - 2.2.1.4. Quantitative trends over time
    - 2.2.1.5. Basic probability
  - 2.2.2. Assessing the correctness of the answer (i.e., comparing quick estimations with calculated answers as a way of finding mistakes and approximating answers)
    - 2.2.2.1. Basic “reasonableness”: identifying answers which are clearly out of the possible range of answers
    - 2.2.2.2. Doing rough calculations to get approximate answers
    - 2.2.2.3. Relating calculated values to the type of possible answers (e.g., for an average, checking that the answer is within the range of numbers in the data).

### **Unit III: More complex problem-solving**

- 3.1. Introduction to structuring a complex problem, asking the right questions, analysing the data, drawing conclusions. Examples in various subject areas:
  - 3.1.1. Business: Market/Customer data regarding demand for competing products
  - 3.1.2. Economics: Price vs. Demand
  - 3.1.3. Environment: Correlation of an environmental hazard with a health issue
  - 3.1.4. Social sciences: Types of people for/against a particular issue

### **List of practical work:**

- a. Basics of computing in the digital age:
  - i. Brief demonstration of key elements of desktop computers; Navigating the Windows operating system environment
  - ii. Browsing the internet; use of internet office productivity tools and e-mail
- b. Word Processing:
  - i. Document/File Formatting: Table of Content, Table of Figure, Page No., Cover Page, Referencing/Citation, and Table of reference
  - ii. Mail Merge: Create letters for multiple recipients with the same content of file
  - iii. Organogram: using Smart art feature
- c. Spreadsheets:
  - i. Simple Bill Creation: Fill series, introduction of formula, currency conversation, and graph/chart
  - ii. Salary calculation and payslip generation (using mail merge): concept of allowances and deduction, individual TA and Leave calculation
  - iii. Result/Mark sheet (using mail merge) Preparation: total marks, % of marks, weightage wise calculation, Pass/Fail determination by If formula, conditional formatting to highlight data
  - iv. Attendance Calculation: introduction of count, counta, countif formula, calculate attend class, missed class, % of attendance and Allowed/ Debarred by using IF formula
  - v. Count/Sum product: sumif/sumifs countif/countifs

- vi. Data Validation: Restrict user to enter wrong data.
- vii. Lookup, Vlookup, Hlookup
- viii. Pivot Table, Pivot Chart, Slicer, Filter
- ix. Consolidated data from different sheet and file
- d. Presentation software:
  - i. Basics of placing elements on slides.
  - ii. Explore some creative and less standard ways of creating an interactive presentation.
  - iii. Slide transition, Text Animation
  - iv. Action Button, Smart art, Custom animation, Handout
  - v. Slide masters

**Reading List:**

**Essential Reading**

Frye, C. (2019). *Microsoft Excel 2013 Step by Step*. Microsoft Press.

Training resources on Microsoft Office, available at <http://office.microsoft.com/en-us/training/>

Training resources on Google G Suite, available at <https://gsuite.google.com/training/>

**Additional Reading**

Swinford, E., Melton, B., & Dodge, M. (2013). *Microsoft Office Professional 2013 step by step*. Sebastapol, CA: Microsoft Press.

Weverka, P. (2016). *Microsoft Office 2013: All-in-one for dummies*. Delhi: Wiley India.

**Date:** January 2021

**Module Code and Title:** CET103 Intermediate Microeconomics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Tshering Lhamo Dukpa

**General objective:** This builds upon Introductory Microeconomics (CET101) and prepare students to apply advanced analytical tools to model agents' behaviour in partial and general equilibrium frameworks. It trains the students to evaluate the impact of distortions in the market structures, and explores the ways to correct market failure.

**Learning outcomes – On completion of the module, students will be able to:**

1. Explain economic agents' behaviours using mathematical tools.
2. Differentiate between the choices made by economic agents under various risk scenarios.
3. Describe the determinants of consumer choices, including inter-temporal choices.
4. Examine the results of, and methods used in, expected utility theory.
5. Describe the pattern of interaction between various microeconomic decisions.
6. Apply economic theory to diverse real-world situations.
7. Differentiate between partial and general equilibrium
8. Outline the problems related to the more common economic assumptions (rationality, equilibrium reasoning, and optimisation).
9. Examine general equilibrium framework and Pareto efficiency conditions.
10. Analyse welfare loss resulting from market distortions.
11. Apply microeconomic models to design solutions to practical economic issues

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
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Contact	Lectures	3	60
	Tutorials and class discussion	1	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

### Assessment Approach:

#### A. Assignment: 10 Marks

Each Student will be given a task related to problem solving in terms of decision making for consumers and firms. The assignment should have a maximum limit of 750-850 words.

- 1 Identification of a problem
- 1 Solution framework/methods
- 1 Use of appropriate tools
- 5 Solution to the stated problem
- 2 Explanation

#### B. Class Tests: 10 Marks

Two written tests will be conducted that will comprise 45 minutes duration, 5 marks each, from Unit I before the mid-term and from Unit V after mid-term.

#### C. Quizzes: 10 Marks

Two online quizzes (5 marks each) from Unit II before midterm, and from Unit VI after the mid-term.

#### D. Case Study: 10 Marks

In groups of 4-6 students will be tasked with applying the theoretical concepts used in units II, III and VI in the form of a case study. Report word limit: 750-900 words.

- 1 Situation analysis
- 1 Methodology of group work
- 5 Discussion on findings in the joint report
- 3 Peer review of individual reports

#### E. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### F. Semester-End Examination: 40 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and marks

Areas of assignments	Quantity	Marks
A. Assignment	1	10
B. Class Test	2	10
C. Quiz	2	10
D. Group Work	1	10
E. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>60</b>
<b>Semester-End Examination (SE)</b>		<b>40</b>



**Pre-requisites:** CET101 Introductory Microeconomics

**Subject matter:**

**Unit I: Consumer Theory**

- 1.1. Preferences, utility, utility functions and indifference curves
- 1.2. Budget constraint and consumer's choice (apply optimisation approach for problem solving)
- 1.3. Derivation of the demand curve
- 1.4. Revealed preference-WARP and SARP
- 1.5. Income offer curves and Engel curve
- 1.6. Slutsky equation, compensated demand curve, net and gross demand, offer curve
- 1.7. Choice under uncertainty; expected utility function
- 1.8. Risk and inter-temporal choice; risk aversion; asymmetrical information
- 1.9. Consumer's surplus; compensating and equivalent variation; producer's surplus

**Unit II: Market**

- 2.1. Construction of market demand
- 2.2. Inverse demand function
- 2.3. Elasticity of demand; constant elasticity demand; relation between AR, MR and price elasticity
- 2.4. Supply; inverse supply function
- 2.5. Comparative statics
- 2.6. Deadweight loss

**Unit III: Producers Theory**

- 3.1. Technology and isoquants
- 3.2. Cobb Douglas production function
- 3.3. Production with one and more variable inputs
- 3.4. Returns to scale

**Unit IV: General Equilibrium**

- 4.1. Edgeworth box and Pareto Efficiency
- 4.2. Algebra of equilibrium; Walras' law, Existence of equilibrium
- 4.3. Equilibrium and efficiency; algebra of efficiency
- 4.4. Efficiency and welfare Equilibrium
- 4.5. Efficiency under pure exchange and production
- 4.6. Overall efficiency and welfare economics

**Unit V: Market Structure and Game Theory**

- 5.1. Monopoly; pricing with market power
- 5.2. Price discrimination; peak-load pricing; two-part tariff
- 5.3. Profit maximising decisions under monopolistic competition and oligopoly
- 5.4. Game theory: dominant game, Nash equilibrium and competitive strategy

**Unit VI: Externalities and Market Failure**

- 6.1. Production and consumption externalities
- 6.2. Quasilinear preferences and Coase theorem
- 6.3. Three interpretations of externalities
- 6.4. Describe Tragedy of commons, and solutions
- 6.5. Networking externalities and their implications
- 6.6. Public goods, private provision of public goods, different levels of public goods
- 6.7. Free riding, voting, demand revelation, Clarke tax
- 6.8. Market for lemons, adverse selection, Moral hazard
- 6.9. Signalling and incentives

**Reading List:**

**Essential Reading**

Bernheim, B.D. & Whinston, M.D. (2016). *Microeconomics*. Tata McGraw-Hill (India).  
 Perloff, J.M. (2015). *Microeconomics*. Pearson.  
 Pindyck, R., Rubinfeld, D. & Mehta P. (2018). *Microeconomics*. 7th Ed. Pearson.  
 Varian, H.R. (2014). *Intermediate Microeconomics: A Modern Approach*.  
 W.W. Norton and Company/Affiliated East-West Press (India). The workbook by  
 Varian and Bergstrom may be used for problems.

### Additional Reading

Snyder, C. & Nicholson, W. (2010). *Fundamentals of Microeconomics*. Cengage Learning (India).  
 Espinola-Arredondo, A., & Munoz-Garcia, F. (2020). *Intermediate Microeconomic Theory: Tools and Step-by-Step Examples*. The MIT Press.

**Date:** June 2022

**Module Code and Title:** STT101 Descriptive Statistics for Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sonal Mehta

**General objective:** The module introduces some basic concepts and terminology that are fundamental to descriptive statistical analysis and relevant to the study of economics. The main intent is to enable students to develop skills to apply statistical procedures and summarize the information. They will also know how to construct indices.

### Learning outcomes – On completion of the module, students will be able to:

1. Identify the sources of biases associated with data collection and reasoning process.
2. Identify the variables
3. Differentiate between among various data types.
4. Set up sample data for a simple statistical analysis using sampling strategy.
5. Construct frequency table from the raw data.
6. Use spreadsheets to create bar and pie charts.
7. Discuss the significance of common statistical measures.
8. Use spreadsheet to describe the data.
9. Construct histogram, ogives and box and whisker plots using spreadsheets.
10. Present and interpret statistics.
11. Construct and interpret price index.
12. Evaluate the strength and weakness of each price index.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials and Laboratory work	2	
Independent study	Written assignments	1	60
	Review of class materials, and work with data and software	3	
Total			120

### Assessment Approach:

A. Assignment: 10 Marks

The assignment will assess the ability of students to individually plan to collect economics related data using appropriate sampling techniques. Students will write a

report on the sampling strategy, its justification, and possible drawbacks. The assignment should have a maximum limit of 500-700 words.

- 2 Identification of the variables, their types and subjects
- 3 Clearly explain the sampling plan
- 3 Justification of sampling strategy
- 2 Limitations

**B. Class Tests: 20 Marks**

Two written tests will be conducted (10 marks each), one before midterm, covering Unit I, and one after midterm, covering Unit V. Each test will be of 45 minutes duration, and will contain 5 questions (3 on the conceptual understanding and 2 on problem solving).

**C. Practical Exercise: 15 Marks**

The task is for individual student to clean and arrange the given raw data, and provide a descriptive and graphical analysis covering Unit III and IV. The tutor will provide raw data for the work. Students should use spreadsheets for this work.

- 2 Data cleaning
- 3 Arrangement of raw data for analysis
- 6 Clearly communicate the analysis of results- descriptive statistics
- 4 Construction of appropriate graphs to represent the analysis

**D. Midterm Examination: 15 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: - 40 marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignment	1	10
B. Class Tests	2	20
C. Practical Exercise	1	15
D. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>60</b>
<b>Semester-End Examination (SE)</b>		<b>40</b>

**Pre-requisites:** None

**Subject matter:**

For units II to IV use spreadsheets to create outputs and emphasise on data interpretation.

**Unit I: Introduction**

- 1.1. Nature and use of statistics
- 1.2. Statistical challenges: imperfect data, practical constraints, ethical standards
- 1.3. Statistical pitfalls: biases, conclusions from small samples, making generalization about individuals from groups, poor survey methods, giving importance to rare observations and assuming a causal link

**Unit II: Data Collection:**

- 2.1. Definitions: subjects, variables, and data sets

- 2.2. Types of data: qualitative and quantitative
- 2.3. Level of measurement: nominal, ordinal, interval and ratio
- 2.4. Time-series data and cross-sectional data
- 2.5. Sampling concept:
  - 2.5.1 Definitions of primary data, secondary data, population, sample and sample frame
  - 2.5.2 Determination of sample size
  - 2.5.3 Probability sampling: simple random sample, systematic sampling, stratified sampling, cluster sampling
  - 2.5.4 Non probability sampling: convenience sampling and judgement sampling
  - 2.5.5 Sampling and non-sampling error

### **Unit III: Nominal and Ordinal Level Data Analysis**

- 3.1. Descriptive statistics: frequency distribution tables, binary and Likert scale analysis
- 3.2. Visual Displays: bar chart, pie chart

### **Unit IV: Scale Level Data Analysis**

- 4.1. Descriptive statistics:
  - 4.1.1 Measures of central tendency: mean, median and mode
  - 4.1.2 Variation: range, standard deviation both absolute and relative measures
  - 4.1.3 Shape: skewness and kurtosis
- 4.2. Positional averages: quartiles, deciles, quintiles and percentiles
- 4.3. Visual Displays: histograms, frequency polygons, ogives, box and whisker plot
- 4.4. Standardising data: Chebyshev theorem, Empirical rule, unusual observations and outliers
- 4.5. Time series analysis: Trend analysis with line chart
- 4.6. Weighted mean, Arithmetic Mean and Geometric Mean and the relationship between them

### **Unit V: Index Number**

- 5.1. Definition of Index number: price, quantity and value
- 5.2. Uses of Index Numbers
- 5.3. Problems in construction of index numbers
- 5.4. Construction of unweight index numbers: simple average of price relatives
- 5.5. Construction of weighted index numbers: Laspeyres, Paasche and Fishers
- 5.6. Cost of living index
- 5.7. Strength and weakness of each index number
- 5.8. Test of consistency: unit test, time reversal and factor reversal
- 5.9. Indices: chain indices, deflating prices and incomes, base shifting, splicing

### **Reading List:**

#### **Essential Reading**

- Doane, D. & Seward, L. (2019). *Applied Statistics in Business and Economics*. McGraw-Hills/Irwin.
- Newbold, P., Carlson, W. & Thorne, B. (2019). *Statistics for Business and Economics*. Pearson Education.
- Spiegel M.L. & Stephens, L. J. (2007). *Statistics, Schaum Outline Series*. McGraw Hills.
- Thukral, J.K. (18 December, 2012). *Business Statistics*. Taxmann Publications Private Limited.

#### **Additional Reading**

- Larsen, R.J. & Marx, M.L. (2011). *An Introduction to Mathematical Statistics and its Applications*. Prentice Hall.
- Levin, R. R., Rubin, S. D., Siddiqui, H. M., & Rastogi, S. (2021). *Statistics for Management*. Pearson.

Date: June, 2022

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**Module Code and Title:** EAP102 Upper-Intermediate English for Academic Purposes  
**Programme:** BA in English Studies (borrowed)  
**Credit Value:** 12  
**Module Tutor:** Dechen Pelden (coordinator), Sangay C. Wangchuk, Palden Wangmo, Mohan Rai and Ruma Tamang

**General objective:** EAP102 is the second part of a two-semester series that aims to develop abilities in reading, writing, listening, and speaking in an academic context to support students' learning through their degree studies. The second part builds on the skills learned in EAP101 and focuses on further helping students to improve their proficiency in English Language and communication.

**Learning outcomes – On completion of the module, students will be able to:**

Reading skills

1. Research texts for essays and apply skimming and scanning while doing so.
2. Identify the progression of ideas in a text.
3. Predict the content of a text and infer the meanings of words.
4. Read for detail, collect information for an essay and take notes for essay-writing and summarise what they have read.
5. Recognize and verify the detection of plagiarized text.

Writing skills

1. Write using discipline-specific language.
2. Defend claims by using evidence, paraphrase information and use quotations in their writing.
3. Identify language for academic writing.
4. Examine the structure and content of reports.
5. Take a stance and express disagreement.
6. Write text using and citing sources appropriately, incorporating summarization, paraphrasing, quotation, and synthesis as appropriate.

Listening and Speaking skills

1. Make and respond to suggestions in a group work.
2. Collaborate with peers to generate ideas.
3. Participate in tutorials and discussions to ask for and give information.
4. Deliver a well-structured formal oral presentation.

Grammar and Vocabulary

1. Explain targeted grammatical structures in both spoken and written forms.
2. Apply targeted grammatical structures appropriately in both written and oral production.
3. Self-correct while using targeted grammatical structures.

**Learning and Teaching Approach:**

Type	Approach	Hours per Week	Total Credit Hours
Contact	Lecture, discussions, and practice (2 x 2 hr). In-class time in each block is used in a workshop style with a review of prior topics and introduction to a new topic, at least one hour on practice, and debrief / reflection /	4	60

	assessment time at the end. Each major unit includes some assessment involving approximately 30 min of in-class time per week on average. Students are expected to use a significant portion of the total in-class time on practice with selected exercises.		
Independent study	Writing assignments, Learning journal, VLE discussions	2	30
	Reading and review of class materials	2	30
Total			120

### Assessment Approach:

#### A. Note-Taking Exercise 5%

Each student has to maintain class notes containing series of exercises from both within and outside the class. It will be assessed before the mid-semester.

'Note-Taking Exercise' will be assessed using the following rubric:

Relevance and Completeness: 10 marks

Coherence and Organisation: 10 marks

Language and clarity: 10 marks

#### B. VLE Discussion 10%

Students will participate in two VLE discussions (5%+5%) on topics assigned by the tutor. It will be conducted one before mid-semester and one after mid semester for 5% each.

The task will be assessed based on the following rubric:

Quality of Discussion: 12 marks

Interaction with peers: 4 marks

Language and Grammar: 4 marks

#### C. Essay Writing Portfolio: 20%

Students will write a persuasive essay and an argumentative essay of 350-500 words each. These essays will be on discipline-specific topics, each submitted as first and final drafts. The two first drafts will be assessed out of 3% each and the final submission will be out of 7% each.

The first draft of the persuasive essay will be assessed on the following rubric:

Quality of persuasion: 60 marks

Organisation and Structure: 20 marks

Language and Grammar: 20 marks

The first draft of the argumentative essay will be assessed on the following rubric:

Quality of arguments: 60 marks

Organisation and Structure: 20 marks

Language and Grammar: 20 marks

The final drafts for both the (persuasive & argumentative) essays will be assessed on the following rubric:

Quality of persuasion/ arguments: 50 marks

Organisation and Structure: 15 marks

Language and Grammar: 20 marks

Improvement made on the first draft: 15 marks

#### D. Presentation: 20%

Each student will make a 7–10-minute presentation. with clear, systematically developed, detailed descriptions on a subject of their interest, expanding and supporting ideas with subsidiary points and relevant examples, and rounding off with

an appropriate conclusion The student can choose one presentation topic of their interest.

The presentations will be assessed based on the following criteria:

Content: 15 marks

Structure: 25 marks

Use of sources and citation: 10 marks

Use of visual aids: 5 marks

Language: 15 marks

Delivery: 25 marks

Time Management: 5 marks

E. Written assignment: 25%

Students will write a 1000-1250 word researched assignment in an academic style, incorporating at least 3 reference sources. The assignment will consist of an outline with an annotated bibliography, followed by the first and final drafts of the essay. The annotated bibliography will be worth 5%. The first draft will be worth 5%; improvement on the first draft will be 5%; and the final draft will be worth 10%.

The annotated bibliography will be assessed based on the following rubric:

Quality and reliability of sources: 15 marks

Quality of summary and evaluation: 20 marks

Citation: 5 marks

Language: 10 marks

The first and final drafts of the essay will be assessed using the following criteria:

Depth of reflection: 25 marks

Critical thinking: 25 marks

Use of sources: 20 marks

Language and Grammar: 20 marks

Use of annotated bibliography: 10 marks

Improvement on feedback will be evaluated using the following rubric:

Marginal improvement: 0 – 49 marks

Satisfactory improvement: 50 – 59 marks

Significant and appropriate improvement: 60 – 74 marks

Significant improvement beyond feedback given: 75 – 100 marks

F. Class Tests: 20%

Two class tests (10%+10%) of 45-50 minutes will be held within class hours, each covering approximately 3-4 weeks of subject matter. These tests should be based on the four skills. These will be marked out of 10 each.

**Overview of assessment approaches and weighting**

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Weighting</b>
A. Note-Taking Exercise	1	5%
B. VLE Discussion	2	10%
C. Essay Writing	2	20%
D. Written assignment	1	25%
E. Presentation	1	20%
F. Class tests	2	20%
<b>Total Continuous Assessment (CA)</b>		<b>100%</b>

**Pre-requisites:** EAP101 Intermediate English for Academic Purposes

**Subject matter:**

**Unit I: Academic orientation**

- 1.1. Assessing one's academic skills
- 1.2. Thinking about academic culture
- 1.3. Thinking critically
- 1.4. Avoiding plagiarism
- 1.5. Recognising variation across academic subjects
- 1.6. Focusing on academic vocabulary

### **Unit II: Topic/context: Choices and implications**

- 2.1. Reading: Researching texts for essays; Skimming and scanning; Identifying the sequence of ideas; Understanding implicit meanings; Inferring the meaning of words; Vocabulary building: adjectives
- 2.2. Listening and speaking: Introducing your presentation; Clarifying key terms
- 2.3. Writing: Understanding how essay types are organised; Drafting the introduction to an essay; Language for writing: common knowledge
- 2.4. Grammar and vocabulary practice: Avoiding repetition: that (of) and those (of); Word families: linking parts of texts; Verb-noun collocations

### **Unit III: Topic/context: Language and communication**

- 3.1. Reading: Predicting the content of a text; Reading for detail; Scanning for information; Understanding implicit meanings; Vocabulary building: adjectives; Thinking about ways of taking notes
- 3.2. Listening and speaking: Making suggestions in group work; Pronunciation: stress in adjectives ending in -ic and -ical
- 3.3. Writing: Referring to other people's work; Using in-text references (particular focus on APA style); Language for writing: reporting verbs
- 3.4. Grammar and vocabulary practice: Impersonal it-clauses: saying that something is important, interesting, etc.; Word families; Nouns with related adjectives ending in -ic and -ical; Reporting verbs

### **Unit IV: Lecture Skills I**

#### **(Lecture Skills A)**

- 4.1. Preparing for lectures: Lecturing styles; Revising basic information
- 4.2. Listening: Understanding lecture aims; Understanding outlines; Identifying main and secondary points; Taking notes: annotating slides 1
- 4.3. Language focus: Repetition and rephrasing
- 4.4. Follow-up: Taking notes: annotating slides 2; Reviewing your notes

#### **(Lecture Skills B)**

- 4.5. Preparing for lectures: Using preparation strategies; Making predictions before a lecture starts
- 4.6. Listening: Making predictions during a lecture; Identifying topic change; Following an argument
- 4.7. Taking notes: using symbols and abbreviation in notes
- 4.8. Language focus: Organising questions and topic changes
- 4.9. Follow-up: Expanding your vocabulary

### **Unit V: Topic/context: Difference and diversity**

- 5.1. Reading: Thinking about what you already know; Reading in detail; Taking notes; Vocabulary building 1: word families; Vocabulary building 2: adjective-noun collocations; Collecting information for an essay; Taking notes for essay writing
- 5.2. Listening and speaking: Working with colleagues: generating ideas and reporting; Pronunciation: dividing speech into units
- 5.3. Writing: Language for writing 1: the grammar of reporting verbs; Language for writing 2: comparing and contrasting; Reporting from a reading



- 5.4. Grammar and vocabulary practice: Linking parts of a text: conjunctions and sentence connectors; Single-word verbs and multi-word verbs; Word families

#### **Unit VI: Topic/context: The world we live in**

- 6.1. Reading: Recognising plagiarism; Getting started; Identifying the main ideas in a text; Summarising what you have read; Vocabulary building: single-word verbs and multi-word verbs; Vocabulary in context: hedging adverbs
- 6.2. Listening and speaking: Reaching a consensus in group work; Pronunciation: contrasts
- 6.3. Writing: Using paraphrases; Including quotations in writing
- 6.4. Grammar and vocabulary practice: Articles: zero article and the; Complex prepositions; Person, people, peoples

#### **Unit VII: Topic/context: Bringing about change**

- 7.1. Reading: Reading critically; Finding information and taking notes; Vocabulary in context 1: inferring the meaning of words; Vocabulary in context 2: hedges; Retelling what you have read
- 7.2. Listening and speaking: Concluding your presentation; Pronunciation: linking words in speech units
- 7.3. Writing: Using an academic style
- 7.4. Grammar and vocabulary practice: Adding information about nouns: relative clauses; It-clauses: expressing personal opinions impersonally; Abstract nouns + of + -ing/to-infinitive

#### **Unit VIII: Topic/context: Work and equality**

- 8.1. Reading: Understanding figures and tables; Scanning for information; Taking notes; Understanding the significance of references; Vocabulary in context: avoiding repetition
- 8.2. Listening and speaking: Taking part in tutorials and joining in discussions; Pronunciation: stress in compound nouns 1
- 8.3. Writing: Looking at the structure and content of reports; Language for writing 1: describing events in a time sequence; Language for writing 2: cause and effect
- 8.4. Grammar and vocabulary practice: Passive voice; Past perfect; -ing nouns

#### **Unit IX: Topic/context: Controversies**

- 9.1. Reading: Understanding the writer's opinion; Identifying main ideas and supporting information; Recognising general nouns; Understanding hedges; Vocabulary building 1: formal and informal verbs; Vocabulary building 2: opposites
- 9.2. Listening and speaking: Tutorials: asking for and giving more information; Pronunciation: intonation in wh-clefts
- 9.3. Writing: Describing information in figures and tables; Language for writing 1: referring to figures and tables; Language for writing 2: referring backwards and forwards; Writing practice
- 9.4. Grammar and vocabulary practice: Verbs followed by a noun phrase or that-clause; Non-finite relative clauses; Adverbials used to comment

#### **Unit X: Topic/context: Health**

- 10.1. Reading: Reading for evidence; Thinking about what you already know; Preparing for essay writing; Vocabulary in context: inferring the meaning of words; Understanding connections in texts: this/these; Developing hedging skills
- 10.2. Listening and speaking: Summarising what has been said; Evaluating visual aids; Pronunciation: stress in compound nouns 2
- 10.3. Writing: Contrasting information; Taking a stance: expressing disagreement; Writing practice

- 10.4. Grammar and vocabulary practice: Referring to quantities; Evaluative adjectives and adverbs; Phrases connecting sentences: this/these; Non-finite relative clauses

#### **Unit XI: Lecture Skills II**

##### **(Lecture Skills C)**

- 11.1. Preparing for lectures: Thinking about the purposes of lectures  
11.2. Listening: Understanding evaluations; Understanding lists  
11.3. Language focus: Noticing differences in the language of lectures and academic writing; Noticing prominent words  
11.4. Follow-up: Taking notes: annotating; Reconstructing your notes

##### **(Lecture Skills D)**

- 11.5. Preparing for lectures: Building basic information  
11.6. Listening: Understanding the relationship between parts of the lecture; Understanding descriptions of processes  
11.7. Language focus: Understanding vague language  
11.8. Follow-up: Listening for a lecture summary; Comparing notes

##### **(Lecture Skills E)**

- 11.9. Preparing for lectures: Overcoming problems in listening to lectures  
11.10. Listening: Understanding specialised terms; Understanding reasons  
11.11. Language focus: Understanding signals of incomplete information; Understanding forward and backward reference  
11.12. Follow-up: Listening and annotating slides; Writing up your notes; Overcoming problems

#### **Reading List:**

##### **Essential reading**

Hewings, M. and McCarthy, M. (2014). *Cambridge academic English – An integrated skills course for EAP: B2 (Upper Intermediate) Student's Book*. Cambridge University Press.

Paterson, K. and Wedge, R. (2013). *Oxford grammar for EAP*. Oxford University Press.

##### **Additional reading**

Hacker, D. (2021). *A writer's reference* (10th ed.). Bedford/St. Martin's.

Hyland, K. (2006). *English for academic purposes*. Routledge.

**Date:** June 2022

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<b>Module Code and Title:</b>	<b>GSE101 Analytical Skills</b>
<b>Programme:</b>	University-wide module
<b>Credit:</b>	12
<b>Module Tutor(s):</b>	Dechen Pelden (Coordinator), Mohan Rai, Sunil Kumar

**General objective:** This module aims at developing critical and analytical thinking skills of students to enhance their creativity and ability to think laterally that will aid problem solving and decision-making abilities. With these essential analytical thinking and problem -solving skills students gain an edge in a competitive world.

#### **Learning outcomes – On completion of the module, students will be able to:**

1. Articulate thinking paradigms;
2. Explain creativity and barriers to creative thinking;

3. Apply creative thinking skills to spot unnoticed opportunities;
4. Describe problem solving process;
5. Apply appropriate problem-solving tools to a given issue;
6. Evaluate issues to make informed decisions;
7. Generate creative solutions by using appropriate methods.

**Learning and teaching approaches:**

Approach	Hours per week	Total Credit Hours
Lectures	1	15
Group and Panel Discussions, Presentations, Case Study	1	15
Role Plays/Demonstrations, Mock sessions, Audio visuals	2	30
Independent Study, Reflection, Written Assignments, Project Work, Individual Reading	4	60
<b>Total</b>		<b>120</b>

**Assessment approach:**

**A. Written Assignment: Portion of final Marks - 20%**

Students will be required to complete one written assignment on the contemporary issue of a subject. The required data and contextual information will be provided to students. Students will be required to read, analyse and interpret the data and contextual information, and communicate the result to the intended audience. Wherever there is a need, students should substantiate the existing data with their own data collection. The length of the assignment should be anywhere between 1000 and 1500 words.

**Criteria:**

- 4% - Originality and creativity
- 2% - Clarity of the points and opinions
- 4% - Reliability of data and accuracy of data interpretation
- 8% - Analysis of the issue
- 2% - Overall effectiveness of writing style

**B. Class Participation: Portion of the final Marks - 10%**

Students will participate in class discussions, contributing their ideas and opinions about the methods and tools being taught in the module.

**Criteria:**

- 2% - frequency of participation in class
- 3% - quality of comments –involving critical thinking and analysis of information and reasoning
- 5% - contribution in a group discussion in class –understanding of group dynamics and processes

**C. Case Analysis and Presentation: Portion of Final Marks - 30%**

Students will solve one case study in a group which will be assessed in two components. The case can be related to any field of knowledge such as engineering, climate change, biotechnology, sustainable development, procurement, production, marketing, strategic management, human resource and current economic and social development.

## 1. Written

### Criteria:

- 5% identifying the problem
- 10% choosing the right approach for the analysis and solving the problem
- 5% drawing the correct conclusion with a recommendation

## 2. Presentation

### Criteria:

- 2% Creativity in delivery of the presentations;
- 2% Visual appeal
- 2% Confidence
- 4% Content analysis

## D. Panel Discussion: Portion of Final Mark - 20%

A group of students will be required to discuss a topical issue such as climate change, green procurement, disruptive innovation, and big data moderated by a peer.

### Criteria:

- 5% - Preparedness on the topic
- 5% - Relevance of the argument
- 5% - Respect for other panelists' views
- 5% - Coherent and logical flow of ideas

## E. Debate: Portion of the Final Mark - 20%

Students in groups of four or five will debate on a given topic against another group.

### Criteria:

- 5% - Language Proficiency
- 5% - Intelligence, ability and competence
- 5% - Logical thinking and reasoning
- 5% - Ability to use appropriate information

### Overview of the assessment approaches and marks

Areas of Assignment	Quantity	Marks
A. Written Assignment	1	20%
B. Class Participation	NA (non-definite/should participate in the class discussion at least 5 times)	10%
C. Case Analysis & Presentation	1 + 1	30%
D. Panel Discussion	1	20%
E. Debate	1	20%
<b>TOTAL</b>		<b>100%</b>

**Pre-requisite:** None

### Subject matter

#### UNIT I: Thinking process & Reflection

- 1.1. Introduction to the Thinking Process & Reflection
- 1.2. Concept of mind mapping
- 1.3. Metacognition and thinking about thinking
- 1.4. Thinking Paradigms: Lateral and Vertical thinking
  - 1.4.1. Whole brain (system 1 and system 2)
  - 1.4.2. Analytical

- 1.4.3. Critical
- 1.4.4. Creative
- 1.4.5. Logical
- 1.4.6. Scientific
- 1.4.7. Statistical
- 1.4.8. Systems
- 1.4.9. Visual
- 1.4.10. Ethical

## **UNIT II: Overview of analytical thinking skills**

- 2.1. Concept of analytical skills
- 2.2. Competencies of analytical thinking
- 2.3. Benefits of analytical thinking
- 2.4. Analytical thinking process
- 2.5. Tools and techniques for analytical skills
- 2.6. Application of analytical thinking
- 2.7. Validity and strength in arguments

## **UNIT III: Creative Thinking**

- 3.1. Definition of creativity
- 3.2. Creative thinking – Self-Assessment
- 3.3. Characteristics of a creative person
- 3.4. Barriers to creativity and overcoming the barriers
- 3.5. Ways to enhance creative thinking (e.g. brain storming)
- 3.6. Methods of creativity

## **UNIT IV: Problem solving process**

- 4.1. Understanding problem analysis
- 4.2. Conventional problem solving process
  - 4.2.1. Present the problems
  - 4.2.2. Ask solutions
  - 4.2.3. Shoot down ideas
  - 4.2.4. Make consensus
- 4.3. Creative problem solving process
  - 4.3.1. Problem definition
  - 4.3.2. Problem analysis
  - 4.3.3. Generating possible solutions
    - 4.3.3.1. Brain storming process and rules
    - 4.3.3.2. Fishbone Analysis
    - 4.3.3.3. Mind mapping
  - 4.3.4. Analysing the solutions
  - 4.3.5. Selecting the best solution
  - 4.3.6. Implementing the best solution
  - 4.3.7. Planning the next course of action
- 4.4. Questioning techniques

## **UNIT V: Decision making process**

- 5.1. Introduction to Decision making process
- 5.2. Six Thinking Hats
- 5.3. SWOT Analysis
- 5.4. Decision Tree analysis/what-if analysis
- 5.5. Pareto chart
- 5.6. Logical Framework Analysis

## **Reading List**

### **Essential Reading**

- Bono, E. d. (2000). *Six Thinking Hats* (2nd ed.). New Delhi, India: Penguin India.
- Michalko, M. (2006). *Thinkertoys: A handbook of creative-thinking techniques* (2nd ed.). Ten Speed Press.
- Puccio, G.J., Mance, M. & Switalski, L.B. (2017). *Creativity Rising Creative Thinking and Creative Problem Solving in the 21st Century*. ICSC Press, International Center for Creativity, US
- Treffinger, D. J. (2006). *Creative Problem Solving: An introduction* (4th ed.). Prufrock.

### Additional Reading

- Bono, E. d. (2008). *Creativity workout: 62 exercises to unlock your most creative ideas*. Ulysses Press.
- Bono, E. d. (2009). *Lateral Thinking*. e-Penguin.
- Bono, E. d. (2005). *Thinking course (Revised Edition)*.
- Chopra, R. (n.d.). *Logical Critical Analytical Reasoning*. Galgoba Publications Pvt Ltd.
- Eiffert, S. D. (1999). *Cross-train your brain: a mental fitness program for maximizing creativity and achieving success*. Amacom.
- Kahneman, D. (2015). *Thinking fast and slow*. New York: Farrar, Straus and Giroux.
- Scott, J. W. (2016). *Critical Thinking: Proven strategies for improving your decision-making skills, retaining information longer and analyzing situations with simple logic ---- Logical thinking and critical thinking skills*. New Familiar Publishing.

**Date:** January 2018

**Module Code and Title:** ETH203 Ethics in Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sanjeev Mehta

**General objective:** This module aims to strengthen critical thinking about ethical issues that arise in economic analysis and public policies. It will facilitate the students to explain moral foundations in economics, apply moral philosophy to human choices and economic policy. Students will develop skills that are necessary to evaluate economic behaviour and policies on ethical concepts.

### Learning outcomes – On completion of the module, students will be able to:

1. Apply ethical framework on a moral position.
2. Provide an economic perspective to an ethical question.
3. Examine conflict between public and private morality.
4. Examine the role of incentives and rewards in setting ethical behaviour.
5. Evaluate the moral status of profit in the context of sector specific needs.
6. Explain the role of self-organisation in promoting ethical behaviour.
7. Distinguish between virtue and care ethics
8. Establish link between markets virtues and Happiness
9. Describe the limits to market ethics.
10. Examine ethical applications in labour market.
11. Describe the role of social responsibility in the provision of financial services.
12. Evaluate risks related to the decision making for others.
13. Examine the moral responsibilities of economists.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials	1	

	Film, Case Studies and writing blogs	1	
Independent study	Written assignments	1	60
	Reading and review of class materials/ other related tasks	2.5	
	VLE discussions	0.5	
Total			120

### Assessment Approach:

#### A. Assignment: 10 Marks

Each student will submit an assignment before the mid-semester examination, entailing evaluation of an issue from a given ethical framework, should have a maximum limit of 800-1000 words.

- 1 Identification of the ethical issue (s) involved
- 2 Defining the embedded ethical concept
- 3 Justification for the use of an ethical framework
- 4 Analysis and findings

#### B. Critical Essays: 20 Marks

Each student will write two essays (10 marks each), one each before and after mid semester examination, on any ethical economic issue from Unit II and Unit V respectively. Word limit: 800-1000 words each essay.

- 1 Logical flow of thoughts
- 3 Ability to comprehend relevant issues in the debate
- 3 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion
- 1 Structure of the essay

#### C. Case Study: 15 Marks

Each student will write and post a blog on a given case (a film/ public policy/ private decisions) from the issues covered in Unit III and IV. The blog should have a maximum limit of 500-750 words.

- 6 Identification of the issues of ethical conflict
- 2 Link the conflicts to an ethical framework
- 4 Assessment of the impact of ethical conflict
- 3 Justification of the ethical stand

#### D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### E. Semester-End Examination: 35 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and marks

Areas of assignments	Quantity	Marks
A. Assignment	1	10
B. Critical Essays	2	20 (10 each)

C. Case Study	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Moral Foundation**

- 1.1. Why Ethics Matters: Definition of Morality, Ethical Framework- Consequentialism, Deontology, and Virtue-Based
- 1.2. Classical Utilitarianism and Rule Utilitarianism
- 1.3. Link between Ethics and Economics, Positive and Normative Economics
- 1.4. Ethics and Markets, Roles of Rights, Duties, Rules and Virtues
- 1.5. Perfect and Imperfect Duties, Judgment and Willpower, Rights, Wrongs, and Externalities.
- 1.6. Limits to Benevolence, Potential for Corruption, Moral Development

**Unit II: Sources of Morality in Economics (Economic Judgment and Moral Philosophy)**

- 2.1. Economic Man, Rationality and Bounded Rationality, Economics without Economic Man, Role of Incentives and Rewards, Moral Status of Profit, especially in context of sector specific needs
- 2.2. Utility and Wellbeing, Rights and Freedom,
- 2.3. Group Size and Economic Behaviour, Self-Organisation and Return of Invisible Hand
- 2.4. Incentives and Cost of Lying, Self-Image, Moral Balancing
- 2.5. Public and Private Personas and Morality, Moral Suasion, Social Identity

**Unit III: Market, Virtues and Happiness**

- 3.1. Virtue Ethics and Care Ethics, Conflict between Virtue and Care Ethics, Redressing the Balance
- 3.2. Link between Market Virtues and Happiness,
- 3.3. Moral Limits of the Market: Commodification, Commercialisation, Privatisation, Involuntary Exchange, Plurality and Commensurability

**Unit IV: Commerce and Markets**

- 4.1. Humane markets, Humane Political Economy, Dehumanising Market,
- 4.2. Ethics of Money and Finance, Money as the Root of Evil, Fairness in Financial Market, Social responsibility of Finance
- 4.3. Ethics in Labour Market, Labour Market and Rise of Gig Economy,

**Unit V: Welfare, Risk and Policy**

- 5.1. Ethics of making Risky Decisions for Others, Four Dilemmas, Distributional Sensitiveness
- 5.2. Economic Harm and Responsibilities of Economists, Sources of Econogenic Harm, Harm Centric Approach to Economic Assessment
- 5.3. Ecological Justice

**Reading List:**

**Essential Reading**

- Hausman, D (2018). *Economic Analysis, Moral Philosophy and Public Policy*.  
 Sen, Amartya (1998). *On Ethics and Economics*. Blackwell Publishing.  
 White, D M (2019). *The Oxford Handbook of Ethics and Economics*. OUP.  
 Wight, Jonathan B (2016). *Ethics and Economics: An Introduction to Moral Framework*.  
 Stanford University Press.



## Additional Reading

- Sandel, M J (2012). *What Money Can't Buy: The Moral Limits of Markets*. Farrar, Straus and Giroux.
- Wempe, B., Frooman, J. (2018). *Reframing the Moral Limits of the Market Debate: Social Domains, Values and Allocation Methods*. *Journal of Business Ethics* 153, PP1-15.
- Gaarfland, J.J. (2010). *Do Markets Crowd out Virtues? An Aristotelian Framework*. *Journal of Business Ethics*, Vol 9 (1). PP1-19.
- Jarecki, N. (2012). *Arbitrage*. Greenroom Films, Treehouse Pictures, Artina Films

**Date:** June 2022

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**Module Code and Title:** STT202 Inferential Statistics for Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sonal Mehta

**General objective:** The module introduces concepts for drawing inferences. This module will help students to use and apply appropriate inferential statistical tests to test theories, and make decisions.

### Learning outcomes – On completion of the module, students will be able to:

1. Use spreadsheets to solve problems related to probability distribution.
2. Apply probability distribution for decision making.
3. Distinguish between parameters and statistic.
4. Apply standard error to determine appropriate sample size.
5. Use an appropriate inferential statistics test.
6. Differentiate between point and interval estimates.
7. Formulate null and alternative hypotheses.
8. Perform the tests using spreadsheet.
9. Distinguish between type I and type II errors.
10. Make decisions based on tests.
11. Apply inferential statistics for analysing secondary data for making predictions.
12. Apply the inferential tools for conducting research.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials and Laboratory work	2	
Independent study	Written assignments	1	60
	Reading and review of class materials, and problem solving	3	
Total			120

### Assessment Approach:

#### A. Practical Exercise: 10 Marks

The task is for each student to answer the questions on probability distributions using spreadsheets and interpret them

- 2 Identification of the probability distribution.
- 4 Output based on the formula
- 4 Clearly communicate the analysis of results

#### B. Class Tests: 20 Marks

Two written tests will be conducted (worth 10 marks each), comprise 45 min duration and covering Unit II for one test and Unit III for another. The tests will contain 5 questions (3 on the conceptual understanding and 2 on problem solving).

**C. Assignment: 15 Marks**

The assignment will be based on two sample hypothesis testing and regression. It will assess the ability of students to individually use the data, to identify the test related to the variables picked, arrange the data on spreadsheet, create outputs and provide an in-depth analysis. The assignment should use at least three types of tests.

- 4 Choice of variables and the tests
- 4 Outputs
- 7 Analysis (Include the hypothesis, testing, decision and recommendation)

**D. Midterm Examination: 20 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: 35 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Marks</b>
A. Practical Exercise	1	10
B. Class Tests	2	20
C. Assignment	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** STT101 Descriptive Statistics for Economics

**Subject matter:**

Use spreadsheets to create outputs and emphasise on data interpretation.

**Unit I: Probability Distribution (outputs, diagrams and interpretations)**

- 1.1. Characteristics, finding probabilities using spreadsheets, diagrams and application
- 1.2. Discrete random variables
  - 1.2.1. Binomial distribution
  - 1.2.2. Poisson distribution
- 1.3. Continuous random variables: normal and standard normal distribution

**Unit II: Sampling Distribution of means and proportions**

- 2.1. Sample and parameter
- 2.2. Unbiased and efficient estimators
- 2.3. Central Limit theorem of means and proportions
- 2.4. Sample size and standard error: definitions and the relationship between sample size and standard error
- 2.5. Point and interval estimates
- 2.6. Confidence interval, choosing a confidence level

**Unit III: Statistical Decision Theory**

- 3.1. Statistical hypothesis formulation: null hypothesis and alternative hypothesis

- 3.2. Type I and type II errors: meaning, implications and methods of reducing type I error
- 3.3. Level of significance: .01, .05 and .1
- 3.4. Two-tailed and one-tailed tests: graphical presentation
- 3.5. P value for hypothesis test: meaning, computer output
- 3.6. Decision rule- test of hypothesis
- 3.7. One sample and two sample hypothesis testing for proportions

#### **Unit IV: Two sample hypothesis testing**

- 4.1. Hypothesis formulation, choosing the level of significance, arranging data and creating an output on spreadsheet, decision making and recommendation.
- 4.2. T test: independent and paired samples (nominal and ratio level data)
- 4.3. ANOVA: One factor and two factor (nominal and ratio level data)
- 4.4. Chi Square Test of Independence (both nominal level data)

#### **Unit V: Regression**

- 5.1. Correlation: correlation and causation
- 5.2. Scatter plot diagram
- 5.3. Pearson coefficient of correlation (ratio level data)
- 5.4. Probable error
- 5.5. Rank correlation (ordinal level data)
- 5.6. Coefficient of determination
- 5.7. Simple - regression: priori, hypothesis testing, reporting outputs, regression equation and interpretations of the non-standardised beta coefficients (both ratio level data)

#### **Reading List:**

##### **Essential Reading**

- Doane, D. & Seward, L. (2020). *Applied Statistics in Business and Economics*. McGraw-Hills/Irwin.
- Newbold, P., Carlson, W. & Thorne, B. (2019). *Statistics for Business and Economics*. Pearson Education.
- Larsen, R.J. & Marx, M.L. (2011). *An Introduction to Mathematical Statistics and its Applications*. Prentice Hall.
- Spiegel M.L. & Stephens, L. J. (2007). *Statistics, Schaum Outline Series*. McGraw Hills.

##### **Additional Reading**

- Thukral, J.K. (2012). *Business Statistics*. Taxmann Publications Private Limited.
- Levin, R. R., Rubin, S. D., Siddiqui, H. M., & Rastogi, S. (2021). *Statistics for Management*. Pearson.

**Date:** June, 2022

**Module Code and Title:** CET204 Intermediate Macroeconomics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sanjeev Mehta

**General objective:** This module introduces formal and more advanced macroeconomics with analytical tools. It aims to equip students with the basic tools of macroeconomic analysis, under autarchy and open economy frameworks. It fosters greater understanding of the processes and systems that shape macroeconomic policies.

**Learning outcomes – On completion of the module, students will be able to:**

1. Delineate the channels of transmission of monetary and fiscal policies.
2. Review policy effectiveness with the use of macroeconomic models.
3. Compare the impact of macroeconomic policies in the short and long run.
4. Analyse the relevance of each assumption in a macroeconomic model.
5. Identify major policy trade-offs.
6. Determine the size of current account balance using national account estimates.
7. Make effective arguments for and against exchange rate systems.
8. Describe micro foundations of macroeconomic models.
9. Examine major lags in macroeconomic policies.
10. Apply macroeconomic theories to a local perspective.
11. Apply a data set for problem solving.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	60
	Tutorials	1	
Independent study	Assignments	1	60
	Reading and review of class materials, keeping abreast with current macroeconomic events, VLE discussions	3	
Total			120

**Assessment Approach:**

A. Assignment: 10 Marks

Each student will submit an assignment based on analysis and comparison of macroeconomic and its relation to the Bhutanese economy. Assignment should have a limit of 750-850 words.

- 3 Identification explicit and implicit assumptions
- 5 Make clear distinction between different macroeconomic policies
- 2 Analytical discussion

B. Class Experiment: 10 Marks

Based on the use of a data set (on five key macroeconomic variables) supplied by the tutor, each student will analyse the status of a macro economy, covering topics in the Unit III.

- 3 Relevance of analytical methods used
- 5 Effective analysis
- 2 Presentation of main findings through appropriate graphs

C. Class Test: 10 Marks

Students will take problem solving test on the topics covered in Unit I and IV, answering four questions- two on problem solving skills, one defining a model or its specific property, and one on graphical presentation of a situation. Time: 45 minutes.

D. Assessment of Annual Budget: 15 Marks

In group of 4-6, students will provide an analytical macroeconomic analysis of the current year's annual budget. The analysis should be within 1000-1200 words.

- 3 Identify and justify budget highlights
- 8 Analysis of the possible macroeconomic impact of the budget
- 2 Use of two appropriate graphs to support analysis
- 2 A subtle conclusion

E. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

F. Semester-End Examination: 35 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignment	1	10
B. Class experiment	1	10
C. Class test	1	10
D. Assessment of annual budget	1	15
E. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** CET102 Introductory Macroeconomics

**Subject matter:**

**Unit I: Aggregate Demand and Aggregate Supply Curves**

- 1.1. Derivation of aggregate demand (AD) and aggregate supply curves (AS), Slope of AD curve, and shift in the AD curve
- 1.2. Keynesian and Classical versions of AS
- 1.3. Three models of AS- wage rigidity (integrated with the workers' misconception model), imperfect information, price rigidity
- 1.4. Interaction between AD and with short and long run AS, automatic adjustment mechanism, policy intervention
- 1.5. Measuring crowding out using AD and AS framework

**Unit II: Policy ineffectiveness debate**

- 2.1. Relation between Inflation and unemployment
- 2.2. Short and long run Philip curve, explanation for vertical Phillips curve
- 2.3. Expectations Augmented Phillips curve, NAIRU, slope of AS curve and shifts in the AS curve
- 2.4. Inflationary expectations: adaptive and rational expectations, Lucas' critique
- 2.5. Derivation of dynamic aggregate supply curve from Phillips curve, Dynamic aggregate demand curve, dynamic stochastic general equilibrium
- 2.6. Classical dichotomy, stationary state equilibrium, and neutrality of money

**Unit III: Open Economy Models**

- 3.1. Short-run open economy models: Deriving current account deficit using national account
- 3.2. Exchange rate determination: Spot and forward rates, spread, flexible and fixed exchange rate systems, exchange market interventions, clean and dirty floating, managed pegs, sterilising and non-sterilising interventions, depreciation and devaluation, Marshall-Learner condition, J curve effect, purchasing power parity, currency board system
- 3.3. Impossible trinity: Mundell-Fleming model only under perfect mobility of capital, with fixed and flexible exchange rate systems
- 3.4. Purchasing power parity
- 3.5. Asset market approach

- 3.6. Dornbusch's overshooting model
- 3.7. Monetary approach to balance of payments

**Unit IV: Micro Foundations**

- 4.1. Keynesian consumption function, trends in APC, Kuznets' puzzle
- 4.2. Fisher's theory of optimal inter-temporal choice of consumption
- 4.3. Life-cycle theory and permanent income hypotheses,
- 4.4. Rational expectations and random-walk of consumption expenditure
- 4.5. Fixed business investment- capital hiring decision of the firms, gap between desired and actual stock of capital, simple and dynamic accelerator models, discounted cash flow approach, Tobin's Q theory
- 4.6. Determinants of residential investment and Inventory investment

**Unit V: Policy Analysis**

- 5.1. Fiscal Policy and Monetary Policy
- 5.2. Expectations and policy, politics and policy
- 5.3. Active or passive approaches to policy making, role of automatic stabilisers, lag effects in policy,
- 5.4. Rules versus discretion and time consistency, Taylor's rule
- 5.5. Monetary policy- instruments, objectives and targets, policy implementation
- 5.6. Government budget constraint
- 5.7. Government debt, arithmetic of deficit and debt, evolution of debt to GDP ratio
- 5.8. Ricardian equivalence

**Reading List:**

**Essential Reading**

Abel, A.B. & Bernanke, B.S. (2019). *Macroeconomics*. Pearson Education, Inc  
 Blanchard, O. (2021). *Macroeconomics*. Pearson Education, Inc.  
 Dornbusch, R., Fischer, S. & Startz, R. (2018). *Macroeconomics*, 12<sup>th</sup> Ed. McGraw Hill.  
 Mankiw, N.G. (2019). *Macroeconomics*. Worth Publishers.

**Additional Reading**

Sheffrin, S.M. (1996). *Rational Expectations*. Cambridge University Press.  
 Taylor, J.B. (2012). *Monetary Policy Rule Works and Discretion Doesn't: A Tale of Two Eras*. *Journal of Money, Credit and Banking*, 44(6). Pp 1017-1032.  
 RGoB (recent years). *National Budget Report*. Ministry of Finance  
 RMA (2021). *Monetary Policy Statement*. Royal Monetary Authority.  
 RMA (Latest). *Annual Report*. Royal Monetary Authority.

**Date:** June 2022

སྤྱི་ཚན་གྱི་མིང་དང་སྤྱི་ཚན་ཨང་

**DZG101** རྫོང་ཁ་བཟོ་དོན་སྤྱོད་ལེན།

ལས་རིམ་

གཙུག་ལག་སློབ་སྡེ་ཡོངས་ཁྱབ།

སྤྱི་འབྲུས་

༡༥

སྤྱི་ཚན་སློབ་སྦྱོར་པ།

རྫོང་ཁའི་ལེགས་བཤད་པ།

སྤྱི་ཚན་འགོ་འདྲེན་པ།

སྤྱི་བཏང་ལས་དོན།

སྲོང་ཚན་འདི་གི་དམིགས་ཡུལ་གཙོ་བོ་ར་ སྲོབ་སྲོང་པ་རྒྱ་གིས་ རང་གི་མི་ཚེ་ནང་ ལཱ་གཡོག་དང་འབྲེལ་བའི་གནད་དོན་ ག་ཅིའི་ཐད་ལས་འབད་རུང་ རྫོང་ཁའི་ཐོག་ལུ་ བད་དོན་སྲོད་ལེན་ ཚུལ་དང་མཐུན་ཏོག་ཏོ་སྟེ་ འབད་ཚུགས་ནིའི་དོན་ལུ་ ཨིན། དེ་མ་ཚད་ སྲོང་ཚན་འདི་གིས་ རྫོང་ཁའི་ཐོག་ལུ་ ཤེས་ཡོན་འབྲི་རྩལ་གྱི་ལམ་ལུགས་དང་འབྲེལ་ཏེ་ བྱི་ཚུགས་ བྱི་ལུ་ཡང་ དམིགས་གཏད་བསྐྱེད་པ་ཨིན།

**སྲོབ་སྲོང་གྲུབ་འབྲས།**

སྲོང་ཚན་འདི་མཚུགས་བསྟུན་ད་ སྲོབ་ཕྱག་རྒྱ་གིས་

- ༡ རྫོང་ཁའི་རྒྱུད་ཡིག་གི་འབྲུང་རབས་དང་ རྫོང་ཁ་ལྟུབ་དགོ་པའི་ཁྲུངས་དང་དགོས་པ་ སྲབ་ཚུགས།
- ༢ སྲོག་རིག་ནང་ལུ་ རྫོང་ཁའི་མཚུབ་སྲོན་ རྒྱབ་ཚུགས།
- ༣ འབྲེལ་སྐྱོད་དང་བྱེད་སྐྱོད་ ལྷག་བཅས་ ཚིག་གྲོགས་ འབྲེལ་ཚིག་ ཚག་ཤད་རྒྱ་ དབྱེ་དབྱེད་འབད་དེ་ མ་འཛོལ་ བར་ ལག་ལེན་འབབ་ཚུགས།
- ༤ ཡུལ་ རུས་ གནས་སྤངས་དང་བསྐྱེད་ཏེ་ རྫོང་ཁའི་ཐོག་ལུ་ ཉན་སྲབ་འབད་ཚུགས།
- ༥ རྫོང་ཁའི་ཐོག་ལུ་བྱིས་ཏེ་ཡོད་མི་རྒྱ་ ངག་གཤིས་དང་མཐུན་མ་སྟེ་ལྷག་ཚུགས།
- ༦ གནས་སྤངས་དང་འབྲེལ་བའི་དབྱེ་གཏམ་ ལག་ལེན་འབབ་ཚུགས།
- ༧ རྫོང་ཚིག་དང་དོན་མཚམས་ ཚུལ་མཐུན་སྟེ་བྱི་ཚུགས།
- ༨ གཞུང་སྐྱེར་གྱི་ཡིག་རིགས་བྱི་ཚུགས།
- ༩ རྫོང་ཁའི་ནང་ཡོད་པའི་འབྲི་ཤོག་གི་རིགས་ག་ཅི་ར་ཨིན་རུང་ བཀའ་ཚུགས།
- ༡༠ ཡིག་རིགས་རྒྱ་ ལུགས་མཐུན་དང་ལུགས་ཡངས་གཉིས་ཆ་རའི་ཐོག་ལུ་བྱི་ཚུགས།
- ༡༡ ལུང་འབྲེན་དང་རྒྱབ་རྟེན་གྱི་ཐོ་ འོས་འབབ་ལྷན་ཏོག་ཏོ་སྟེ་ ལག་ལེན་འབབ་ཚུགས།

**སྲོབ་སྲོན་ཐབས་ལམ།**

དབྱེ་བ།	ཐབས་ལམ།	བདུན་ཕྱག་གཅིག་ནང་རྒྱ་ཚོད།	སྲོང་འབྲས་རྒྱ་ཚོད།
དངོས་འབྲེལ།	གསལ་བཤད།	༡	༤༠
	སྲོང་ལྷ།	༡	
	སྲོན་ལྷ།	༡	
རང་སྲོང་།	ལས་འགུལ་བྱི་ནི།	༡	༤༠
	དཔེ་མཛོད། ལྷག་དེབ་ལྷག་ནི།	༡	
སྲོང་ཚན་འདི་གི་དོན་ལུ་ ཡོངས་བསྟོན་མཁས་ རྒྱ་ཚོད་			༡༢༠

**དབྱེ་ཞིབ་ཐབས་ལམ།**

སྒྲིབ་ཚན་འདི་གི་དོན་ལུ་ དུས་རྒྱུན་དབྱེ་ཞིབ་དང་སྤྲོད་སྤྲོད་སྤྲོད་ཞིབ་ གཉིས་ཚ་རིམ་གྲོག་ལས་ དབྱེ་ཞིབ་འབད་དགོ་པ་  
ཨིན།

ཀ ལས་འགྲུལ་དང་པ། ཉན་ཞིའི་རིག་ཅུལ་དབྱེ་ཞིབ། (སྐྱུགས་ ༡༠%)

སྒྲོབ་སྒྲོན་པ་གིས་འོས་འབབ་ལྡན་པའི་དོན་ཚན་ (སྐྱེ་བ་བྱུང་ཡོད་མི་ཅིག་) གདམ་ཁ་རྒྱབ་སྟེ་ རང་རྒྱུད་གི་ཐོག་ལས་  
ལུ་སིམ་སིམ་སྟེ་ཉན་བཅུག་ དོ་རུང་ ཚར་ཅིག་ཉན་ཅིག་དང་གཅིག་ཁར་བཟུང་བཟུང་བཅུག་ཞིན་མ་ལས་ ཉན་མི་  
འདི་

ཚོགས་པ་འབད་དེ་ བྲི་བཅུག་ དེ་གི་དམིགས་ལུལ་གཙོ་བོ་ ཉན་ཏེ་ཏེ་གོ་ནི་དང་ ཉན་ཏེ་བྲི་རྒྱུགས་མི་རྒྱུགས་དབྱེ་  
ཞིབ་

འབད་ཞིའི་དོན་ལུ་ཨིན།

སྐྱུགས་ཀྱི་ཚན་གཞི།

- A. གོ་དོན་ལེན་ཏེ་ རང་ཚོགས་ནང་བཤད་པ་རྒྱབ་ཐངས། ༡༠%
- B. ལྟེན་སྦྱོར། ༤%
- i. ཉན་ཏེ་བྲིས་མི་དེ་གི་དབྱེ་དབྱེད་སྟེན་ལུ། ༩%
- ii. རང་གི་ཉན་ཞིའི་རིག་ཅུལ་ཡར་རྒྱས་ཀྱི་གྲོས་འཆར། ༩%

བཅུག་གསོ། དབྱེ་དབྱེད་སྟེན་ལུ་དང་ གྲོས་འཆར་ བསྐྱོམས་ཏེ་ ཤོག་ལེབ་གཅིག་བྲི་དགོ།

ཁ ལས་འགྲུལ་གཉིས་པ། སྐྱེ་བའི་རིག་ཅུལ་དབྱེ་ཞིབ། (སྐྱུགས་ ༡༠%)

སྒྲོབ་སྒྲོན་པ་གིས་ སྤྱིར་བཏང་མི་སྟེའི་ནང་ རྫོང་ཁ་བར་དོན་སྒྲོད་ལེན་ནང་ལུ་ དཀའ་ངལ་ག་ཅི་ར་འབྱུང་དོ་ཡོད་པ་  
ཨིན་ན་གདམ་ཁ་རྒྱབ་ཞིན་མ་ལས་ འཇུག་མི་ ༥ རེ་འབད་མིའི་སྟེ་ཚན་ནང་སྟེ་ སྒྲོབ་ཁང་ནང་ལུ་ སྐར་མ་ ༡༥  
འི་རིང་ལུ་ སྐྱེན་ལུ་འབད་བཅུག་དགོ་ འཇུག་མི་རེ་གིས་ སྐར་མ་ ༩ རེ་གསལ་བཤད་འབད་དགོ། དེ་གི་  
དམིགས་ལུལ་གཙོ་བོ་ སྐྱེ་བའི་རིག་ཅུལ་ཀྱི་དབྱེ་ཞིབ་འབད་ཞིའི་དོན་ལུ་ཨིན།

སྐྱུགས་ཀྱི་ཚན་གཞི།

- དོན་ཚན་དང་འབྲེལ་བ། ༤%
- སྐད་ཡིག་སྦྱོར་བ། ༩%
- གསལ་བཤད་འབད་ཐངས་
  - ཐོགས་ཆགས་མེད་པ། ༩%
  - རྫོང་སྐྱེད་པ། ༩%



- སྐད་ཀྱི་མེད་པ་ལ། ༡%
- གཞུགས་ཀྱི་རྣམ་འགྲུབ། ༡%
- གློ་སློབ་ས། ༡%
- ཉན་མི་ཚུ་འབྲེལ་གཏོགས་འབད་ཐངས། ༡%

ག ལས་འགུལ་གསུམ་པ། ལྷག་ནི་དང་བྱི་ཞིའི་རིག་ཅུལ་དབྱེ་ཞིབ། (སྐྱགས་ ༣༠%)

ཚོག་འབྲུ་ ༡༥༠༠-༢༠༠༠ གི་བར་ན་ཡོད་པའི་ཚུམ་བྱིས་ཅིག་ སློབ་དཔོན་དང་སློབ་ཕྲུག་མཉམ་རུབ་ཀྱི་ཐོག་ལས་གདམ་ཁ་རྒྱུ་ཞེན་ལས་ རང་རྒྱུ་གི་ཐོག་ལས་ དབྱེ་དཔུད་སྟན་ལུ་བྱི་ནི། དེ་གི་དམིགས་གཏང་འདི་ སློབ་ཕྲུག་ཚུ་ གིས་ ལྷག་སྟེ་གོ་དོན་ལེན་ཏེ་ བཅུད་དོན་ཏེ་གོ་ནི་དང་ དབྱེ་དཔུད་འབད་ཐངས་ཀྱི་རིག་ཅུལ་ཐོབ་སྟེ་ ཡིག་ཐོག་ལུ་ བཀོད་ཚུགས་ནིའི་དོན་ལུ་དང་ ལུང་འབྲེན་དང་རྒྱབ་རྟེན་ལག་ལེན་འཐབ་ཐངས་ཚུ་ དབྱེ་ཞིབ་འབད་ནིའི་ཨིན། སློབ་ ཕྲུག་རེ་གིས་ ཚུམ་བྱིས་ཀྱི་བཅུད་དོན་རེ་དང་ དབྱེ་དཔུད་སྟན་ལུ་རེ་བྱི་དགོཔ་ཨིན། དབྱེ་དཔུད་སྟན་ལུ་འདི་ ཚོག་འབྲུ་ ༢༠༠༠ ཀྱི་ནང་འཁོད་བྱི་དགོཔ་ཨིན།

སྐྱགས་ཀྱི་ཚད་གཞི།

- ཚུམ་བྱིས་ཀྱི་བཅུད་དོན་གཙོ་བོ་ཚུ་ མ་འཇོལ་བར་ བཀོད་ཐངས། ༥%
- དཔུད་པ་གི་ཐོག་ལས་ དབྱེ་དཔུད་འབད་ཐངས། ༦%
- གནད་དོན་ཚུ་གོ་རིམ་སྒྲིག་ཐངས། ༣%
- འོས་འབབ་དང་འབྲེལ་བ་ཡོད་པའི་མིང་ཚོག་ལག་ལེན་འཐབ་ཐངས། ༣%
- ལུགས་མཐུན་དང་འཁྲིལ་ཏེ་འབྲི་ཐངས། ༤%
- སྟེབ་སྦྱར་དག་པ། ༡%
- ཚོག་སྦྱར་ཚུལ་མཐུན་ལག་ལེན་འཐབ་ཐངས། ༡%
- ལུང་འབྲེན་དང་རྒྱབ་རྟེན་ལག་ལེན་འཐབ་ཐངས། ༣%
- འབྲི་བཀོད། ༡%

ང་ སློབ་དུས་ཚོས་རྒྱུགས། (སྐྱགས་ ༣༠%)

ལས་རིམ་འདི་ནང་བཅའ་མར་གཏོགས་མི་ཚུ་གིས་ སློབ་དུས་མཚུགས་བསྟུན་ད་ དུས་ལུན་ཚུ་ཚོད་ ༡ རིང་ ལུ་ སྐྱགས་ ༣༠ འི་འབྲི་རྒྱུགས་ལུ་དགོཔ་ཨིན།

ཅན་གསོ། འབྲི་རྒྱུགས་ཀྱི་སྐྱགས་དང་དུས་ལུན་ཚུ་ཚོད་ཚུ་ རང་སེའི་མཐོ་རིམ་སློབ་གྲུའི་ལམ་ལུགས་དང་ འཁྲིལ་ཏེ་ལེན་ཞེན་ལས་ སྐྱགས་བརྒྱུ་ཚ་ ༣༠ ནང་ལུ་ ཐབ་དགོཔ་ཨིན།

དབུ་ཞིབ་ཐབས་ལམ་དང་མྱེད་ཚད་ཀྱི་བཀོད་རིས།

ཐབས་ལམ།	དབུ་ཞིབ་ཀྱི་དབུ་བ།	གྲངས་ལ།	སྒྲིགས་ཀྱི་བརྒྱ་ཚ།
དུས་རྒྱུན་དབུ་ཞིབ།	ཀ ཉན་ནིའི་རིག་ཅུལ་དབུ་ཞིབ།	༡	༢༠%
	ཁ སྐབ་ནིའི་རིག་ཅུལ་དབུ་ཞིབ།	༡	༢༠%
	ག ལྷག་ནི་བྱི་ནིའི་རིག་ཅུལ་དབུ་ཞིབ།	༡	༣༠%
སློབ་དུས་ཚོས་རྒྱགས།	ང་ འབྲི་རྒྱགས།	༡	༣༠%
<b>སྒྲིགས་བསྡེལས་</b>			<b>༡༠༠</b>

སློབ་ཚད།      མེད།  
 བར་དོན།

ལས་ཚན་དང་པ།    སྐད་ཡིག་གི་རོ་སློབ།

- ༡.༡    རྫོང་ཁའི་སྐད་ཡིག་གི་འབྲུང་རབས།
- ༡.༢    སྦྱར་བཏང་ རྫོང་ཁ་ལྷབ་དགོ་པའི་དགོས་པ།
- ༡.༣    དམིགས་བསལ་ མཐོ་རིམ་སློབ་གྲྭ་ནང་ལུ་ རྫོང་ཁའི་སློབ་ཚན་འདི་ ལྷབ་དགོ་པའི་དགོས་པ།

ལས་ཚན་གཉིས་པ། བར་དོན་འཕུལ་རིག

- ༢.༡    སློབ་རིག་ནང་ རྫོང་ཁ་བརྩམས་ཐངས།
- ༢.༢    སློབ་རིག་ནང་ལུ་ རྫོང་ཁ་འབྲི་ཐངས།

ལས་ཚན་གསུམ་པ། ཡི་གུའི་སློབ་བ།

- ༣.༡    ཚིག་ཐོགས།
- ༣.༢    འབྲེལ་ཚིག་ལག་ལེན་འཐབ་ཐངས།
- ༣.༣    འབྲེལ་སྐྱོ
- ༣.༤    བྱེད་སྐྱོ
- ༣.༥    ལྷག་བཅས།
- ༣.༦    ཚིག་ཤད་ལག་ལེན་འཐབ་ཐངས།

ལས་ཚན་བཞི་པ། རྫོང་ཁའི་རྒྱ་གཞིས་དང་འབྲེལ་ཏེ་སྐབ་ཐངས།

- ༤.༡    ཁ་བཟང།
- ༤.༢    སལ་སྐད་ཞེས།
- ༤.༣    མིང་ཚིག་དང་བྱ་ཚིག་བྱད་ཚིག་ཚུ་འོས་འབབ་ལྡན་མ་སྤེལ་ག་ལེན་འཐབ་ཐངས།

- ༤.༤ དཔྱེག་ཏུ་མཁུ་
- ༤.༥ རྫོང་ཁ་ཉུག་རྒྱུང་གི་མིང་ཚིག་ལག་ལེན་འཐབ་ཐངས།

ལས་ཚན་ལྔ་པ། རྫོང་ཁའི་རག་གཞིས་དང་འཁྲིལ་ཏེ་ལྷག་ཐངས།

- ༥.༡ ཚིག་མཚམས་བཅད་དེ་ལྷག་ཐངས།
- ༥.༢ མགོ་འདོགས་དབྱངས་གསུམ་ཞུགས་པའི་རྫོང་སྐྱ།
- ༥.༣ རྫོང་འཇུག་གི་སྐྱ་མིལ་བུ་བཏོན་དགོས་དང་མ་དགོ་པའི་རིགས་ཚུ་ བྱད་པར་སྤྱེ་སྤྱེ་ ལྷག་ཐངས།
- ༥.༤ རྫོང་འཇུག་མེད་རུང་ཡོད་པ་བཟུམ་ལྷག་ཐངས།
- ༥.༥ མིང་མཐའ་མེད་རུང་ཡོད་པ་བཟུམ་ལྷག་ཐངས།

ལས་ཚན་དྲུག་པ། བྱི་ཞིའི་རིག་རྩལ།

- ༦.༡ རྫོང་ཚིག་འབྲི་ཐངས།
- ༦.༢ དོན་མཚམས་འབྲི་ཐངས།
- ༦.༣ ལྷན་ལུ་འབྲི་ཐངས།
- ༦.༤ འབྲི་ཤོག་གི་རིགས་བཀང་ཐངས།
- ༦.༥ སྐོས་ཚོད་འབྲི་ཐངས།

ལས་ཚན་བདུན་པ། ཡིག་འགྲུལ།

- ༧.༡ ཡིག་རྩུང་འབྲི་ཐངས།
- ༧.༢ མགོན་ལུ་འབྲི་ཐངས།
- ༧.༣ གཏང་ཡིག་འབྲི་ཐངས།
- ༧.༤ ལུ་ཡིག་དང་ལུ་ཚིག་/བཞེར་ཡིག་ འབྲི་ཐངས།
- ༧.༥ གན་ཡིག་འབྲི་ཐངས།
- ༧.༦ ལྷབ་བསྐྱགས་ཀྱི་རིགས་འབྲི་ཐངས།

ལས་ཚན་བརྒྱུད་པ། ཤེས་ཡོན་འབྲི་རྩལ།

- ༨.༡ ལུགས་མཐུན་དང་ལུགས་ཡངས་ཀྱི་འབྲི་ཐངས།
- ༨.༢ ལུང་འབྲེན་ ལག་ལེན་འཐབ་ཐངས།
  - ༨.༢.༡ ཐད་ཀར་ལུང་འབྲེན།
  - ༨.༢.༢ ཚིག་སྐྱར་ལུང་འབྲེན།
- ༨.༣ ལྷབ་རྟེན་ཐོ་བཀོད་འབད་ཐངས།

- ༤.༤.༡ དཔེ་དེབ་ཀྱི་རིགས་ཐོ་བཀོད་འབད་ཐངས།
- ༤.༤.༢ གནས་དེབ་ཀྱི་རིགས་ཐོ་བཀོད་འབད་ཐངས།

**ལྷག་དགོ་པའི་དཔེ་ཐོ།**

**ངེས་པར་དུ་ལྷག་དགོ་པའི་དཔེ་ཐོ།**

ཀུན་བཟང་དོ་མེ། (༢༠༡༢) རྫོང་ཁའི་རྫོང་སྤྱོད་ལཱ་རྒྱུན་དག་པའི་ལུས་ཚུ། ཐིམ་ཕུ། རྫོང་ཁ་གོང་ལྷན་ཚོགས།

ཀུན་བཟང་དོ་མེ། (༢༠༡༥) དཔེ་གཏམ་དོན་གྱི་རྒྱན་ཆ། ཐིམ་ཕུ། རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས།

རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས། (༢༠༡༣) རྫོང་ཁའི་བདེ་གཞུང་སྤྱོད་ལཱ་ལུ་ལོ་མེ། ཐིམ་ཕུ། རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས།

རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས། (༢༠༡༤) འབྲུག་གི་ཡིག་བསྐྱར་རྣམ་གཞག། ཐིམ་ཕུ། རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས།

གཙུག་ལག་སློབ་སླེའི་སློབ་སྦྱོང་ལྟེ་བ། ལུང་འབྲེན་དང་རྒྱབ་རྟེན་འབད་ཐངས། (༢༠༡༧) ཐིམ་ཕུ། འབྲུག་རྒྱལ་འཛིན་གཙུག་ལག་སློབ་སླེ།

**ལ་སྐོང་ལྷག་དགོ་པའི་དཔེ་ཐོ།**

སྐལ་བཟང་དབང་ཕུག། (༢༠༠༢) རྫོང་ཁ་བདེ་དོན་རྒྱུན་འབྲེལ། བསམ་ཕུ།

རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས། (༢༠༡༡) ཕལ་སྐྱད་དང་ཞེ་སའི་རྣམ་གཞག་སྐར་མའི་འོད་ཟེར། ཐིམ་ཕུ། རྫོང་ཁ་གོང་འཕེལ་ལྷན་ཚོགས།

སྤྱི་ཚེས། ༢༢/༡༢/༢༠༡༧ |

**Module Code and Title:** QME201 Introductory Econometrics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sonal Mehta

**General objective:** This module provides an introduction to the basic econometric concepts and techniques. It covers estimation and diagnostic testing of multiple regression models with its various forms. Statistical software SPSS will be used for data analysis.

**Learning outcomes – On completion of the module, students will be able to:**

1. Arrange data in SPSS.
2. Conduct transformation of data in SPSS.
3. Create outputs in SPSS.
4. Design a relevant multiple regression model.
5. Interpret the regression output.
6. Identify the major assumptions of classical linear regression model.
7. Describe the properties of the estimators with the Gauss Markov Theorem.
8. Determine appropriate functional forms of a regression model.
9. Interpret the outputs of various regression model based on different functional forms.
10. Apply caution in the use of dummy variables.

11. Interpret the output of dummy variables.
12. Detect the violation of the major assumptions of classical linear regression functions.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials and laboratory work	2	
Independent study	Written assignments	1	60
	Reading and review of class materials, problem solving, work on the software	3	
Total			120

**Assessment Approach:**

- A. Lab work: 20 Marks
  - a. Students will undertake individual lab work, before mid-term covering Unit I using SPSS for data analysis (10 marks each)
    - 4 Arrangement of data in SPSS
    - 3 Compute and Transform variables
    - 3 Graph
  - b. Students will undertake another individual lab work, after mid-term covering Unit III, using SPSS for data analysis (10 marks)
    - 2 Arrangement of data in SPSS
    - 2 Use of appropriate econometric tool(s)
    - 1 Convert the SPSS output into required (journal) format
    - 5 Interpretation of the results
- B. Class Test: 10 Marks
 

One written test will be conducted of 45 min duration and covering Unit II. The tests will contain 5 questions (3 on the conceptual understanding and 2 on problem solving).
- C. Assignment: 10 marks
 

Students will individually develop a multiple regression model, estimate the parameters and forecast. The assignment should have a maximum limit of 300-500 words.

  - 2 Description of the regression model
  - 2 Identify variables
  - 6 Estimation of the parameters and forecast
- D. Case Analysis: 10 Marks
 

Groups will complete a report based on an activity involving data analysis on regression using dummy variables. Report word limit: 500-750 words.

  - 1 Modelling the regression with dummy variables
  - 2 Transforming the data to carry out the test in SPSS
  - 4 Interpretation of the output
  - 1 Structure of the report (organisation and language)
  - 2 Presentation (individually marked)
- E. Midterm Examination: 15 Marks
 

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.
- F. Semester-End Examination: 35 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and marks

Areas of assignments	Quantity	Marks
A. Lab work	2	20 (10 each)
B. Class Test	1	10
C. Assignment	1	10
D. Case Analysis	1	10
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** STT202 Inferential Statistics for Economics

**Subject matter:**

#### Unit I: Introduction to SPSS

- 1.1. Layout, Menus and Icons
- 1.2. Data – Compute and Transform
- 1.3. Analyse
- 1.4. Graph and Utilities

#### Unit II: Multiple Linear Regression Model

- 2.1. Steps for designing econometric models
- 2.2. Basic concepts- Population regression function (PRF) and sample regression function (SRF), stochastic specification of PRF, significance of stochastic disturbance, coefficient of determination- R square, adjusted R square
- 2.3. Classical Linear Regression Model (CLRM) and its main assumptions
- 2.4. The Gauss-Markov theorem- properties of estimators
- 2.5. Estimation of parameters and its interpretation (standardised and non-standardised beta coefficients)
- 2.6. Reporting the results of regression analysis
- 2.7. Forecasting

#### Unit III: Functional forms

- 3.1. Transforming data into logarithmic forms in SPSS, interpretation of outputs
- 3.2. Log linear model
- 3.3. Semi Log Models: log-lin model, lin-log model
- 3.4. Reciprocal model

#### Unit IV: Dummy variable regression models

- 4.1. Transforming data into dummy variables in SPSS, interpretation of outputs
- 4.2. The nature of dummy variables
- 4.3. Caution in the use of dummy variable
- 4.4. Dummy variable with two qualitative explanatory variables
- 4.5. Mixture of quantitative and qualitative explanatory variables
- 4.6. Interaction effects using dummy variables, structural break analysis

#### Unit V: Violation of CLRM

- 5.1. Use SPSS for detection
- 5.2. Multicollinearity: definition, detection with graph and variance inflation factor, remedies
- 5.3. Heteroscedasticity: definition, detection with graph
- 5.4. Autocorrelation: definition, Durbin Watson Test

## Reading List:

### Essential Reading

- Dougherty, C. (2011). *Introduction to Econometrics*. Oxford University Press, Indian Edition.
- Gujarati, D. (2012). *Econometrics: By Example*. Palgrave Macmillan.
- Gujarati, D.N., Porter, D.C. & Gunasekaran S. (2017). *Basic Econometrics*. Special Indian edition. McGraw Hill Education.
- Kmenta, J. (2008). *Elements of Econometrics*. Indian Reprint, Khosla Publishing House.

### Additional Reading

- Greene, W.H. (2018). *Econometrics Analysis*. Pearson India
- Kennedy, P (2008). *A Guide to Econometrics*. Wiley Blackwell

Date: June, 2022

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<b>Module Code and Title:</b>	<b>CET205 Monetary Economics</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Tshering Lhamo Dukpa

**General objective:** The module aims to examine monetary policy in an economy. It aims to develop greater understanding of the role of money, monetary system, financial structures, and relevant theories and policies.

### Learning outcomes – On completion of the module, students will be able to:

1. Discuss money demand functions, especially with reference to income and interest elasticities.
2. Describe the goals and tools of monetary policy.
3. Explain the effectiveness and limitation of monetary policies.
4. Evaluate the conduct of monetary policies by the central banks.
5. Analyse the role of monetary authorities in controlling the money supply.
6. Examine various financial instruments for inherent risks and returns.
7. Assess the importance of the monetary base in monetary management.
8. Make an economic analysis of financial structures.
9. Trace the channels of monetary transmission.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials and workshops	2	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

### Assessment Approach:

- A. Assignments: 20 Marks

Each student will submit two assignments (10 marks each), one before midterm covering Unit I, and, another after midterm on units IV and V. Each assignment should have a limit of 700-800 words.

- 5 Summary of the article

- 3 Identification of major issues related to the topic
- 2 Key lessons learnt

**B. Class Tests: 20 Marks**

Two written tests (10 marks each) will be conducted for 45 min duration, covering Unit II before the midterm and Unit V after the midterm. The assessment will test students' understanding of the basic concepts of the module.

**C. Case Study: 10 Marks**

Each group consisting of 4-6 students will prepare a report based on a case study on monetary management. Each member of the group will prepare an individual report based on the component assigned. The report will have a maximum limit 700-800 words.

- 1 Identification of the problem addressed in the case study
- 1 Effective group work plan
- 3 Individual reports
- 1 Review of individual work by the group members
- 4 Overall analysis in the joint report

**D. Midterm Examination: 15 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: 35 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Marks
A. Assignments	2	20 (10 each)
B. Class Test	2	20 (10 each)
C. Case study	1	10
D. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction to money and monetary economics**

- 1.1. Nature and functions of money
- 1.2. Types and evolution of money
- 1.3. Introduction to cash in advance (CIA)
- 1.4. Money in the utility (MIU) functions

**Unit II: Money demand and supply**

- 2.1. Microeconomic determinants of the demand for money, demand for money functions
- 2.2. Quantity theory of money- Irving Fischer and Cambridge
- 2.3. Transaction theory of demand for money
- 2.4. Friedman's restatement of quantity theory of money
- 2.5. Monetary aggregates-M1, M2, M3
- 2.6. Velocity of money, and its variability



### **Unit III: The Classical school**

- 3.1. Walras' Law and its implications
- 3.2. Introduction to money in a general equilibrium setting

### **Unit IV: Central Banking and the Conduct of Monetary Policy**

- 4.1. Role of Central Banks
- 4.2. Role of RMA in the monetary management of Bhutan
- 4.3. Central banks in global perspectives, Debate on their autonomy
- 4.4. The Money Supply Process: High powered money, credit creation and money multiplier
- 4.5. The Tools of Monetary Policy: Goals, targets, fractional reserve system, open market operation, bank rates and credit control
- 4.6. The Conduct of Monetary Policy: Strategy and Tactics
- 4.7. Flexible price economies and monetary policy
- 4.8. Lucas supply functions and the effects of monetary policy

### **Unit V: Financial institutions and markets**

- 5.1. Functions of commercial banks and non-banking financial institutions
- 5.2. Money market, instruments of money market- treasury bills, commercial bills, certificates of deposits, call money market, money market derivatives, analysis of bonds
- 5.3. Capital market and its functions

### **Unit VI: Financial instruments**

- 6.1. Definition, Asset Class of Financial Instruments- Debt and Equity Based.
- 6.2. Options and Derivatives, Forward and Future Contracts, OTC, Hedging, Call and Put Options, Spreads and Straddles.
- 6.3. Foreign Exchange: Spot, Forward, and Currency Swaps. Economic Analysis of Financial
- 6.4. Digital Currency: Block Chain Technology

### **Reading List:**

#### **Essential Reading**

- Baye, M.R. & Jansen D.W. (2006). *Money, Banking and Financial Markets*. AITBS.
- Bhole, H.M. (2017). *Financial Institutions and Markets: Structure, Growth and Institutions*. Tata McGraw Hill.
- Kojo, N.C. (2005). *Bhutan: Power Exports and Dutch Disease*. Centre for Bhutan Studies, Thimphu
- Mishkin, F.S. & Eakins, S.G. (2018). *Financial Markets and Institutions*. Pearson Education.

#### **Additional Reading**

- Fabozzi, F.J., Modigliani F., Jones F.J. & Ferri M.G., (2009). *Foundations of Financial Markets and Institutions*. Pearson Education.
- Goodhart, C.A.E. (1989). *Money, Information and Uncertainty*. London: Palgrave Macmillan.
- Handa, J. (2009). *Monetary Economics*. Routledge.
- Lewis, M.K. & Mizen P.D. (2000). *Monetary Economics*. Oxford University Press
- Rashid, H. (2014). "Understanding the Causes of the Rupee Shortfall: A Macroeconomic Policy Challenge for Bhutan and the Way Forward. Unpublished draft retrieved at [www.gnhc.gov.bt/wp-content/uploads/2012/06/Rupee-analysis-by-DESA.pdf](http://www.gnhc.gov.bt/wp-content/uploads/2012/06/Rupee-analysis-by-DESA.pdf)

**Date:** June 2022

**Module Code and Title:** DEV202 Bhutanese Economy  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sanjeev Mehta

**General objective:** This module aims to provide an overview of the overall development philosophy, pattern of economic growth, and broader macroeconomic condition of the Bhutanese economy since 1961. The module will enable students to critically evaluate the macroeconomic policy framework, sector-specific development policies, and achievements during planned economic development in Bhutan.

**Learning outcomes – On completion of the module, students will be able to:**

1. Examine Bhutan’s development policy framework and strategy.
2. Analyse the changing pattern of financing of the development plans in Bhutan.
3. Examine major demographic trends for their influence of economic growth
4. Evaluate the methodological issues in poverty estimation.
5. Analyse the impacts of the patterns of international trade.
6. Examine the regulatory and policy framework governing the Bhutanese economy.
7. Review the sectoral performance and related policies.
8. Describe the role of social and physical infrastructure.
9. Assess major opportunities and challenges for development in Bhutan

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials	2	
Independent study	Written assignments	1	60
	Reading and review of class materials, VLE discussions	3	
Total			120

**Assessment Approach:**

A. Class Tests: 10 Marks

Students will take 2 Class tests (worth 5 marks each) of 30 minutes duration, covering units I and II before the midterm, and units VI and VII after midterm.

B. Debate: 10 Marks

Students will be divided into groups of 4-6 to debate on varied themes covering current issues from units III, IV, and V. Each group is expected to turn in a short-written report (200-300 words) detailing their research preparation (individual write ups should be attached as appendix) for the debate a week before their debate is scheduled.

Marks on the report

- 2 Adequate coverage of the report on debate preparation (Group mark)
- 2 Organization and clarity of the report (Group mark)

Marks on the debate

- 3 Quality of arguments (Including examples provided; Individual mark)
- 2 Rebuttal (Group mark)
- 1 Presentation Style (Individual mark)

C. Policy Analysis: 15 marks

Each student will analyse an existing economic policy (1000-1200 words).

- 1 Introduction
- 3 Problem statement
- 5 Identify the strategies for the policy
- 4 Recommendations
- 1 Language and grammar
- 1 References and style

D. Critical Essay: 10 Marks

Each student will write an essay on any relevant topic from units VIII, IX and X. Each essay should have a limit of 1000-1200 words.

- 1 Logical flow of thoughts
- 5 Ability to comprehend relevant issues in the debate
- 2 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion

E. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

F. Semester-End Examination: 35 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Class Tests	2	10
B. Debate	1	10
C. Policy Analysis	1	15
D. Critical essay	1	10
E. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>65</b>
<b>Semester-End Examination (SE)</b>		<b>35</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Planned development**

- 1.1. Overview of the Bhutanese economy, comparison of the Bhutanese economy before and after 2008, conceptual underpinning of GNH
- 1.2. Operationalizing GNH
- 1.3. Review of the five-year plans, with major focus on the current five-year plan

**Unit II: Financing of plans**

- 1.4. Changes in the pattern of financing of the five-year plans
- 1.5. Role of internal and external resources
- 1.6. Rates and composition of saving and investment
- 1.7. Role of international aid and assistance

**Unit III: Demographic changes**

- 1.8. Major demographic trends, review of draft population policy 2016
- 1.9. Major issues and progress pertaining to quality of life of the population: health, education and malnutrition; rural urban migration

#### **Unit IV: Poverty, inequality and unemployment**

- 1.10. Measurement of poverty: income and multi-dimensional poverty
- 1.11. Trends in inequality, poverty and unemployment in Bhutan
- 1.12. Poverty alleviation and employment generation strategy
- 1.13. Vulnerability and social protection practices
- 1.14. Emerging role of civil society in addressing poverty and employment generation

#### **Unit V: International Trade**

- 1.15. Composition and direction of international trade
- 1.16. Balance of trade and balance of payment- intertemporal analysis, impact assessment
- 1.17. Trade challenges and issues
- 1.18. External debt- size, growth and composition, sustainability
- 1.19. FDI policy 2008, 2019, analysis of FDI inflows to Bhutan

#### **Unit VI: Agriculture**

- 1.20. Agricultural growth and productivity since 1991, cropping pattern, yield gaps in major food crops, changes in the structure of agriculture sector
- 1.21. Agricultural finance and capital formation: pattern of public investment, share in bank loans, and MFIs
- 1.22. Infrastructure: RNR centres, rural electrification, irrigation, farm roads
- 1.23. Agricultural marketing- role of FCB, middleman, cooperatives

#### **Unit VII: Industry**

- 1.24. Review of industrial policy framework- EDP 2008, 2016, 2019
- 1.25. Problems and prospects of industrialization- spatial distribution, industrial health and supply chains.
- 1.26. Industrial estate: Importance and impact, scope for SEZs
- 1.27. Roles of public and private sector, Public Private Partnership
- 1.28. Cottage and small-scale industry- CSMI policy, growth of CSMI sector, and challenges

#### **Unit VIII: Social and physical Infrastructure**

- 1.29. Health and education: infrastructure, budget and institutions
- 1.30. Roads and Transportation
- 1.31. Energy Sector: Role of hydroelectric sector, scope of alternative sources

#### **Unit IX: Key Services**

- 1.32. Tourism: Tourism policy, contribution to the economy
- 1.33. Telecommunication and ICT: Growth, market structure, and digitalisation of the economy

#### **Unit X: Way Forward**

- 1.34. Major opportunities for development
- 1.35. Major challenges for development
- 1.36. Economic roadmap for the 21<sup>st</sup> century

#### **Reading List:**

##### **Essential Reading**

- IMF (2019). Bhutan: Country Report.
- Mehta, S. (2022). *The Dragon Economy: An Experiment with Happiness*. Kuensel Corp. Ltd. Thimphu.
- Mehta, S. (2009). *Nature and Structure of Bhutanese Economy*. Thimphu: KMT Press.
- RGoB. *Mid-Term Review of 11<sup>th</sup> or 12<sup>th</sup> Five-Year Plan*. GNHC.
- UNICEF (2018). Bhutan Common Country Programme Document 2019-2023.

##### **Additional Reading**

RGoB. Five Year Plan documents. GNHC.  
 RGoB (1999). *Bhutan 2020: vision for peace prosperity and happiness*. Ministry of Planning.  
 RGoB (Latest). *Annual Report*. Royal Monetary Authority.  
 RGoB (Latest). *Poverty Analysis Report*. National Statistical Bureau.  
 RGoB (2000). *National Account Statistics 1980-2000*. CSO, Planning Commission  
 RGoB (2001). *Household Income and Expenditure Survey 2000(Pilot): Report on Income and Expenditure, Poverty Measurement, and Socioeconomic Profile of the Households*. CSO, Planning Commission, Thimphu.  
 RGoB (2010). *Bhutan Population and Development Situation Analysis*. GNHC.  
 RGoB (2018). *Draft National Population Policy*. GNHC.  
 RGoB (2013). *Draft Social Protection Policy for Workers in Bhutan*. MoLHR.  
 RGoB (2016). *Draft Population Policy of Bhutan*.  
 RGoB (2014). *Technical Evaluation Report: Rural Economy Advancement Programme Phase 1*. GNHC.  
 World Bank (1996). *Bhutan country economic memorandum, report no. 16113- BHU*.  
 GNHC (2011). *Turning Vision into Reality: The Development Challenges Confronting Bhutan*.  
 Ura, K., Alkaire, S., Zangmo, T., Wangdi, K. (2012). *A Short Guide to Gross National Happiness Index*. CBS.

**Date:** June 2022

**Module Code and Title:**      **DEV203 Environmental Economics**  
**Programme:**                      BA in Development Economics  
**Credit Value:**                    12  
**Module Tutor:**                    Tshering Lhamo Dukpa

**General objective:** This module focuses on economic causes of environmental problems. It examines the role of various economic institutions, incentives, instruments and policies on environment. It aims to develop necessary skills for the valuation of environmental quality, quantification of environmental damages and evaluation of environmental projects.

**Learning outcomes – On completion of the module, students will be able to:**

1. Explain the nature of relationship between environment and economics.
2. Analyse the market for environment.
3. Explain the factors leading to market failure.
4. Evaluate the environmental decisions made by economic agents.
5. Analyse the impact of risk and uncertainty on environmental decisions.
6. Apply basic tools of environment accounting.
7. Evaluate the regulatory framework for environmental issues.
8. Analyse the policy response to various environmental issues.
9. Identify the channels of impact on trade and environment.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials, group work and case studies	2	
Independent study	Written assignments	1	60
	Reading and review of class materials, VLE discussions	3	

Total	120
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**Assessment Approach:**

A. Assignments: 20 Marks

Each student will complete two assignments (10 marks each), one before midterm, covering Unit II, and one after midterm, covering Unit IV. Each assignment should have a maximum limit of 750-850 words.

- 2 Adequacy of references used
- 4 Defining the concepts
- 3 Use of appropriate analytical tools
- 8 Analysis and findings
- 3 Conclusion

B. Group Work: 15 Marks

A group of 4-6 students will analyse data on locally relevant environment issues. The analysis will be presented for a duration 20 minutes and 5 min Q&A.

- 1 Situation analysis
- 2 Methodology of group work
- 6 Discussion on findings in the joint report
- 4 Peer review of individual reports
- 2 Presentation (individually marked)

C. Critical Essay: 15 Marks

Students will complete individual essays on any of the recent issues covered in units V and VI. Word limit: 1000-1200 words.

- 1 Logical flow of thoughts
- 7 Ability to comprehend relevant issues in the debate
- 3 Evidence based arguments
- 2 Language skills (use of technical terminology and grammatically correct)
- 1 Subtleness of conclusion
- 1 Structure of the Essay

D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

E. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Marks
A. Assignments	2	20 (10 each)
B. Group Work	1	15
C. Critical Essay	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

### **Unit I: Introduction**

- 1.1. The Environment and Economics, Environmental and Ecological Economics
- 1.2. Normative and Positive Economic Analysis, Basic Optimist Model
- 1.3. Quality of Environment: Air and Water Pollution, Toxic Chemicals, Environmental Regulation, Cost of Environmental Protection, Changing perspectives on environment
- 1.4. Resource, environment and economic development

### **Unit II: Market for Environment**

- 2.1. Social Choice for Environmental Protection: Individual Preferences for Environmental Protection, Social Choice from Individual Values: Utility functions and Voting, Social Welfare Function
- 2.2. Efficiency and Markets: Pareto Efficiency, Efficiency in Exchange and Production, Efficiency With and Without Market, and Exchange, Two Welfare Theorem, Consumer and Producer Surplus
- 2.3. Market Failure: Open Access, Externalities, Efficient Provision of Public Goods and Bad, Market Provision for Public Goods, Pricing of Public Goods
- 2.4. Making Decisions about Environmental Programs: Cost and Benefit Analysis, Role of Secondary Markets, Multiple Time Periods, Cost and Effectiveness Analysis, Multi Criteria Analysis
- 2.5. Valuing The Environment: Intentions of Valuing the environment, Externalities and Valuation, Methods of Valuation: Total Economic Value, Contingent Valuation, Surrogate Techniques
- 2.6. Demand for Environmental Goods: Willingness to Pay and Accept, Marginal Willingness to Pay and Accept, Types of Environmental Goods, Revealed Preferences and Restricted Demand
- 2.7. Hedonic Price Methods: Pollution and Land Price, Rents and Wages, Hedonistic Price Theory
- 2.8. Household Production and constructed Markets

### **Unit III: Ecological Economics and Environmental Accounting**

- 3.1. Basic concepts of Ecological Economics, Green Economy, Principles of Green Economy
- 3.2. National Income and Environment Accounting: Objectives, Managing Environmental Information, Framework of Environmental Accounting; Green Accounting: Objectives, Forms of Green Accounting, Green GDP

### **Unit IV: Regulation**

- 4.1. Regulating Pollution; Rationale, Political Economy of Regulation, Prescriptive Regulations and Economic Incentives, Spatial and Temporal Complications, Property Rights
- 4.2. Regulating Polluters with Unknown Costs, Audits, Enforcement and Moral Hazard, Voluntary Actions and Agreements

### **Unit V: Policy response**

- 5.1. Global Framework on Sustainable Development: SDGs, Rio +20
- 5.2. Climate Change Policy: UN Climate Action, Montreal and Kyoto Protocols
- 5.3. Trade and Environment: FTAs and Environment, Trans-boundary Pollution,

### **Unit VI: Environmental Risks, Uncertainty, and Transboundary Issues**

- 6.1. Risk and Uncertainty: Difference between Environment Risk and Uncertainty, Subjective and Objective Assessments of Risks, Choices under Risk, Value of Risk Reduction, Insurability of Risk, Role of Liabilities
- 6.2. International and Interregional Competition
- 6.3. Environment, Growth and Development

### **Reading List:**

## Essential Reading

- Callan, S. J. & Thomas, J. M. (2013). *Environment Economics and Management: Theory, Policy and Applications*. South-western Cengage Learning
- Harris, J. & Roach, B. (2018). *Environmental and Natural Resource Economics: A Contemporary Approach*. Routledge.
- Kolstad, C. (2011). *Intermediate Environmental Economics*. Oxford University Press.
- Stavins, R. N., ed. (2012). *Economics of the Environment: Selected Reading List*. W.W. Norton.

## Additional Reading

- Perman, R., James, Y. M., McGilvray & Common, M. (2012). *Natural Resource and Environmental Economics*. Pearson Education.
- Amazon. *The Inconvenient Truth* (Video). <https://www.amazon.com/Inconvenient-Truth-Al-Gore/dp/B000ICL3KG>

**Date:** June 2022

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**Module Code and Title:** CET306 Public Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** This module aims to introduce the students to the role of state in managing economy through fiscal policy instruments, such as, taxes, public expenditure, public debt, and State-Owned Enterprises. It focuses on provision of public goods, and prepare framework for the analysis of social choices.

### Learning outcomes – On completion of the module, students will be able to:

1. Explain the impacts of government interventions on the income-leisure choice of individuals.
2. Identify the needs for public interventions in an economy.
3. Analyse the trade-offs among the objectives of different functions of the government.
4. Examine the principal forms of market failures and their respective solutions, and the role of government.
5. Examine the problems related to the provision of public goods and the remedial measures.
6. Examine and interpret the difficulties in aggregating heterogeneous public choices.
7. Examine the viability of a public project using cost-benefit analysis.
8. Analyse the tax incidences, and tax inefficiencies to frame appropriate tax system.
9. Examine the importance of tax reforms.
10. Assess various arguments in fiscal policy debates by examining the impacts of various fiscal policies of different regimes.
11. Examine the effects of budget deficit on an economy.
12. Explain public debt management.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials and group work	2	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120



## Assessment Approach:

### A. Assignment: 10 Marks.

Each student will submit an assignment covering topics related to Unit I. The assignment should have a maximum limit of 750-850 words.

- 1 Adequacy of references used
- 2 Defining the concepts
- 1 Use of effective analytical tools
- 5 Finding the solution
- 1 Concluding remarks

### B. Project Report: 10 Marks.

Each student will examine the trend of public expenditure on health/ education/social security net/infrastructure in any developing nation. Word limit: 750-850

- 1 Situation analysis
- 3 Usage of appropriate statistical/econometric method
- 5 Discussion on findings
- 1 Conclusion and recommendation

### C. Class test: 10 Marks

A class test of time duration 45 minutes, covering Unit-III and IV would be conducted. The test will comprise structured questions like MCQ, fill-in the blanks, matching, definitions, analytical, and open-ended questions.

### D. Case Study: 10 Marks.

Each student to prepare a report on the social cost and benefit analysis of a public sector project (using real/hypothetical data). Word limit: 800-1000

- 1 Structure of report
- 2 Identification of appropriate social costs and benefits of the project
- 1 Justification of methodology used.
- 3 Discussion of findings
- 1 Presentation of findings
- 2 Defence of the work in Q&A

### E. Discussion:15 Marks

A panel of 4-6 students will discuss any relevant issue related to Bhutan's (or any other developing country) public expenditure/public debt /taxation policy. Each student in a panel will be given 3 minutes to speak, and 2 minutes Q&A

- 3 Critical thinking
- 3 Effective communication (Subtle summary of views, use of technical terms)
- 5 Theoretically embedded arguments
- 2 Evidences to support theoretical arguments
- 2 Effective/convincing responses to the questions

### F. Midterm Examination:15 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### G. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matters covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Marks
A. Assignment	1	10
B. Project Report	1	10
C. Class test	1	10
D. Case study	1	10
E. Discussion	1	15
F. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** CET103 Intermediate Microeconomics

**Subject matter:**

#### **Unit I: Theoretical Tools of Public Finance**

- 1.1. Constrained utility maximization
- 1.2. Putting the tools to work
- 1.3. Market equilibrium and social welfare
- 1.4. Need for state interventions, price and quantity controls
- 1.5. Impacts of state interventions on individual decisions

#### **Unit II: Public Economic Theory**

- 2.1. Public expenditure, definition, classifications, and importance, views on growth of public expenditure: Wagner's Law, Wiseman-Peacock hypothesis
- 2.2. Financing of public expenditure: types of public revenue, public borrowing
- 2.3. Fiscal functions: allocative, distributive and stabilisation, role of public expenditure and public debt
- 2.4. Trade-off between different objectives

#### **Unit III: Externalities**

- 3.1. Externality theory, negative and positive externalities and consequent market failure
- 3.2. Private-sector solutions to negative externalities: property rights and Coase theorem, problems of implementing Coase theorem.
- 3.3. Public-sector remedies for externalities: corrective taxation, subsidy, pollution controlling and optimum level of pollution
- 3.4. Distinctions between price and quantity approaches to addressing externalities: the advantages and disadvantages

#### **Unit IV: Public Goods**

- 4.1. Public goods, pure public goods, features of pure public goods, public goods and market failure
- 4.2. Private provision of public goods, overcoming the free-rider problem
- 4.3. Public provision of public goods, crowding out effect
- 4.4. Publicly provided private goods and inefficiency
- 4.5. Comparison of conditions for optimum provision of public and private goods
- 4.6. Mechanisms for aggregating individual preferences; public choice theory, standard voting model, arbitrary behaviour and voting failure
- 4.7. Arrow's impossibility theorem, and theory of social choice

#### **Unit V: Cost-Benefit Analysis**

- 5.1. Measuring the costs of public projects, present and future costs
- 5.2. Measuring the benefits of public projects, present and future benefits, measuring the benefits of saved time and saved lives, the difficulties
- 5.3. Shadow pricing, and its importance in cost-benefit analysis
- 5.4. Social cost and benefit analysis, and viability of a public project

## Unit VI: Taxation

- 6.1. Principles of taxation and types of taxes
- 6.2. Tax incidence, three rules of tax incidence
- 6.3. Tax inefficiency, impact of taxation on work-effort, progressive taxation and inefficiency
- 6.4. Tax incidence extensions, impacts of taxation on labour market
- 6.5. General equilibrium analysis of tax incidence
- 6.6. Optimal commodity taxation and optimal income taxes, relationship between tax-revenue and tax-rate: Laffer curve
- 6.7. Fundamental tax reforms

## Unit VII: Fiscal stability

- 7.1. Budgetary deficit: sources and financing
- 7.2. Deficit finance: types, measures, impacts on the economy
- 7.3. Importance of public debt management
- 7.4. Sovereign wealth funds: advantages and disadvantages

## Reading List:

### Essential Reading

- Gruber, J. (2019). *Public Finance and Public Policy*. Worth Publishers.
- Musgrave R.A. & Musgrave, P.B. (2017). *Public Finance in Theory & Practice*. McGraw Hill Publications.
- RGoB (of last five years). Budget report: Financial Year. Ministry of Finance.
- Stiglitz, J. E., Rosengard, J.K.(2015). *Economics of the Public Sector*. W.W. Norton & Company, 4<sup>th</sup> edition, 2000.

### Additional Reading

- Cullis, J. & Jones, P. (2009). *Public Finance and Public Choice*. Oxford University Press.
- Rashid, H (2012). Understanding the Causes of the Rupee Shortfall: A Macroeconomic Policy Challenge for Bhutan and the Way Forward. Unpublished paper.
- Public Debt Reports by Ministry of Finance, Royal Government of Bhutan
- Budget Performance Reports by Ministry of Finance, Royal Government of Bhutan.

**Date:** June 2022

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<b>Module Code and Title:</b>	<b>DEV304 Development Problems and Policies</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Sanjeev Mehta

**General objective:** The module examines alternative approaches of development. It provides an introduction to growth accounting and global growth experience. It fosters student's ability to examine arguments on major development trade-offs. The module also examines the role of institutions in economic development.

### Learning outcomes – On completion of the module, students will be able to:

1. Describe various approaches to development.
2. Analyse the historical perspective on economic growth.
3. Apply relevant growth models to address development problems.
4. Analyse inequality and poverty measurement approaches.
5. Apply different methodologies of poverty and inequality analyses.
6. Examine the role of political institutions in economic development.
7. Assess the role of state in economic development.
8. Examine the impacts of various methods of financing development.

9. Provide logical and evidence-based arguments on issues related to economic development.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials, group work, and debates	2	
Independent study	Written assignments	1	60
	Reading and review of class materials, VLE discussions	3	
Total			120

**Assessment Approach:**

A. Assignments: 20 Marks

Each student will submit two assignments (10 marks each), with a focus to design alternative models or simulate to compare/evaluate the impact of a development intervention(s) one before mid-term covering Unit II, and, one after mid-term covering Unit III. Each assignment should have a maximum limit of 750-850 words.

- 1 Appropriateness of a model
- 1 Defining the concepts
- 1 Use of appropriate analytical tools
- 5 Analysis and findings
- 2 Conclusion

B. Group Work: 15 Marks

Groups of 4-6 will complete a report based on an activity involving data analysis on poverty and inequality/ application of growth models/ cross sectional study on convergence. Report words limit: 1000-1200 words.

- 1 Situation analysis
- 2 Methodology of group work
- 6 Discussion on findings in the joint report
- 4 Peer review of individual reports
- 2 Presentation (individually marked)

C. Critical Essay: 15 Marks

Each student will complete an essay on major development challenges from among the issues covered in units IV and V. Word limit: 1000-1200 words.

- 2 Logical flows of thoughts
- 7 Ability to comprehend relevant issues in the debate
- 3 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion
- 1 Structure of the Essay

D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

E. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative

in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### **Overview of assessment approaches and marks**

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Marks</b>
A. Assignments	2	20 (10 marks each)
B. Group Work	1	15
C. Critical Essay	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

#### **Unit I: Concepts of Growth and Development**

- 1.1. Meaning of growth and development; Modern economic growth (Simon Kuznet's views);
- 1.2. Historical perspective of growth: Rostow's stage theory
- 1.3. Basic indicators of the measures development: Per Capita Income, PQLI, HDI, capability approach
- 1.4. Characteristics of developing world: diversity within commonality
- 1.5. Development trajectories across nations and within them

#### **Unit II: Growth Models (This unit will introduce students to define, and model growth under different assumptions.)**

- 2.1. Structural change model (Lewis Model)
- 2.2. Neo-classical counter revolution
- 2.3. Big push strategy
- 2.4. Harrod-Domar model
- 2.5. Solow model

#### **Unit III: Development Problems and Policies**

- 3.1. Poverty and Inequality
- 3.2. Measuring inequality: Four criteria for inequality measurement, Lorenz curve, Gini coefficient
- 3.3. Inequality, income and growth: inverted-U curve hypothesis, uneven and compensatory changes
- 3.4. Policies for the political redistribution and growth
- 3.5. Absolute poverty: Extent and magnitude, Growth and poverty
- 3.6. Poverty measurement: Head count ratio, poverty gap, FGT index, Human Poverty Index, Multi-dimensional Poverty Index
- 3.7. Characteristics of the poor: demographic features, rural and urban poverty, women and children, assets, nutrition, replacement level fertility rate
- 3.8. Mechanisms that generate poverty traps and path dependence of growth processes, policies to avoid poverty traps and path dependency
- 3.9. Policies and approaches to poverty alleviation: redistribution, direct interventions

#### **Unit IV: Financing Development**

- 4.1. Domestic resource mobilisation: Taxes, capital market, frontloading, internal borrowing
- 4.2. External finance: International aid, FDI and external borrowing
- 4.3. Innovative development financing: crowdfunding, venture capital, public private partnership

#### **Unit V: Political Institutions**

- 5.1. Rationale for development planning

- 5.2. Relation between democracy and development
- 5.3. Alternative institutional trajectories and their relationship with economic performance
- 5.4. With-in country differences in the functioning of state institutions
- 5.5. State ownership and regulations
- 5.6. Government failure and corruption

### Reading List:

#### Essential Reading

- Meier, G. M. & Rach, J.E. (2005). *Leading Issues in Economic Development*. 8<sup>th</sup> Ed. Oxford University Press.
- Ray, D. (2016). *Development Economics*. Oxford University Press.
- Todaro, M. P. & Smith, S. (2015). *Economic Development*. 12<sup>th</sup> Ed. Pearson.
- Nafziger, W.E. (2012). *Economic Development*. Cambridge University Press.

#### Additional Reading

- Banerjee, A., Benabou, R. & Mookerjee, D. (2006). *Understanding Poverty*. Oxford University Press.
- Basu, K., ed. (2012). *The New Oxford Companion to Economics in India*. Oxford University Press.
- Dasgupta, P. (2007). *Economics: A Very Short Introduction*. Oxford University Press.
- Easterly, W. (2007). *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good*. Penguin.
- Putnam, R. (1994). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton University Press.
- RGoB (2017). *Bhutan Living Standard Survey Report 2017*. National Statistics Bureau.
- RGoB (2017). *Population and Housing Census 2017 (National Report)*. National Statistics Bureau
- Sachs, J. (2006). *The End of Poverty: Economic Possibilities for Our Time*. Penguin Books.
- Sen, A. (2000). *Development as Freedom*. Oxford University Press.
- UNDP (2012). *Innovative Financing for Development: A New Model for Development Finance? Discussion Paper*.

**Date:** June 2022

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**Module Code and Title:**      **DEV305 Agricultural Economics**  
**Programme:**                      BA in Development Economics  
**Credit Value:**                    12  
**Module Tutor:**                    Sanjeev Mehta

**General objective:** This module will for the study of enabling policy environment to support agricultural growth and ensure food security. Delivery of the module will be in relation to application in the Bhutanese context.

#### Learning outcomes – On completion of the module, students will be able to:

1. Describe the concepts and tools of economics in the study of agriculture.
2. Examine the role of agriculture in economic development.
3. Discuss the taxonomy of agricultural policies
4. Examine agricultural policies that influence incentives for farmers.
5. Evaluate the role of agricultural price policy.
6. Analyse major arguments of the ongoing debate on input subsidies versus direct income transfer to the farmers.
7. Analyse the relationship between land tenure system and land rights.

8. Describe the relation between of gender mainstreaming and agricultural development.
9. Examine the impact of water resource management.
10. Analyse the pattern of agricultural finance.
11. Evaluate the rationale for public extension services.
12. Debate on the impact of new areas of agricultural research.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	45
	Tutorials: discussions, case analysis	1	
Independent study	Written assignments	1	75
	Reading and review of class materials	4	
Total			120

**Assessment Approach:**

A. Assignment: 15 Marks

Individually submitted assignment would entail critical analysis of relevant issue covered in Unit I, and should have a maximum limit of 750-850 words.

- 1 Identification of a relevant issue
- 2 Description of the issue
- 2 Use of effective analytical tool
- 8 Analysis and discussion on findings
- 2 Conclusion

B. Project: 15 Marks

The project will be given after midterm exams. Each student will be required to prepare a complete report based on secondary data to review the impact of any relevant agricultural policy in Bhutan, followed by 10 minutes presentation and 5 minutes Q&A on the report. Report word limit: 1000-1200 words.

- 1 Description of the policy objectives
- 2 Appropriate tool of data analysis
- 6 Discussion on findings
- 1 Structure of the report (Title page, executive summary, introduction, methodology, finding, and conclusion)
- 3 Presentation of report
- 2 Defence of the work in Q&A session

C. Class Tests: 10 Marks

Two written tests (5 marks each) will be conducted for 45 min duration each, one before midterm covering Unit II, and one after the midterm, covering Unit V. Approximately half of the questions will aim at explaining and applying a model.

D. Blog Writing: 15 Marks

Students will watch documentaries/podcast related to agricultural technology and extension services, and write a brief analytical summary of it and upload as a blog. Blog word limit: 500-750 words.

- 2 Identification of relevant issues raised in the documentary/podcast
- 3 Description of the issue
- 8 Analysis and summary
- 1 Conclusion

- 1 Write and upload the blog on a given platform

E. Midterm Examination: 15 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

F. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignment	1	15
B. Project	1	15
C. Class Tests	2	10 (5 each)
D. Blog writing	1	15
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Agriculture and Economic Development**

- 1.1. A brief history of agricultural and economic development
- 1.2. Contribution of agriculture to economic development
- 1.3. Agriculture growth and poverty reduction

**Unit II: Strategies and Agriculture Policy Framework**

- 2.1. Sectoral strategies, need for an agricultural policy, nature of agriculture policy instruments
- 2.2. Taxonomy of agricultural policies: pricing policy, resource policy, access policy policies, programmes and projects
- 2.3. Objectives of agricultural policies- national and sectoral
- 2.4. Principles of agricultural policies
- 2.5. Role of the government: institutional development, provision of public goods, research and development,
- 2.6. Implementation of strategies and policies new legislation, coordination, monitoring and evaluation

**Unit III: Broad Issues of Agricultural Policies**

- 3.1. Agricultural policies and macroeconomic framework - the price linkage, relevancy of prices as instruments
- 3.2. Fiscal policy and subsidies: public expenditure, rationale for subsidies, issue of fiscal support to agriculture
- 3.3. Gender and agricultural development: Multiple manifestations of the gender bias in agriculture, gender mainstreaming,
- 3.4. Selected issues in privatisation-privatisation of processing and storage facilities, entry of foreign players

**Unit IV: Incentivising Agricultural Producers**

- 4.1. Basic concept of prices- nominal price, relative price, real price, index of agricultural prices



- 4.2. Structural determinants of agricultural prices,
- 4.3. Trade policy: protection, tariff, export incentives, policies for food aid, exchange rate policy
- 4.4. Macroeconomic policy for agriculture, fiscal policy and agricultural prices
- 4.5. Sectoral policies: price controls, farm support prices, input prices, strategic reserves and grain market liberalisation
- 4.6. Food security and agricultural prices, prices for the rural poor, price stabilisation

#### **Unit V: Land Tenure Policies**

- 5.1. Importance of land tenure, issues and trends concerning land tenure, landed estates
- 5.2. Land rights: property rights and tenure security, land rights and farm size, transition from customary to formal systems
- 5.3. Communal, collective and individual land rights, the state as land owner
- 5.4. Rationale, failure and new formulation of land reforms
- 5.5. Policies for land markets: land lease, rental, shared tenancy, policies regarding sale of agricultural land, improved access to land for poor and women

#### **Unit VI: Water Management, Technology and Extension Services**

- 6.1. Irrigation policy, types of irrigation systems, instruments of managing water demand- Irrigation pricing and water right market
- 6.2. Role of agricultural technology: Policy context, institutional considerations
- 6.3. Issues in agricultural research and extension, rationale for public agriculture extension, trade in agricultural technology, financing agricultural research, water resource management
- 6.4. New directions in agricultural research

#### **Reading List:**

##### **Essential Reading**

- Anderson, K., Martin, W.J., Ivanic, M. (2017). Food Price Changes, Domestic Price Insulation, and Poverty. In P. Pigali, and G. Feder, G. (Ed). *Agriculture and Rural Development in a Globalising World: Challenges and Opportunities*. Routledge.
- Cramer,G., Paudel,K., Schmitz,A. (2019). *The Routledge Handbook of Agricultural Economics*. Routledge.
- Norton, R D (2004). *Agriculture Development Policy: Concepts and Experiences*. Wiley.
- Takeshima, H., Kumar A., Ahmad, A.U., Joshi, P.K. (2021). Agriculture Development and Modernisation in South Asia. In K. Otsuka and S. Fan (Ed.). *Agriculture Development: New Perspective in a Changing World*. Washington DC. IFPRI.

##### **Additional Reading**

- Traxler,G. (2017). Institutional Constraints and Options for Expanding the Biotechnology Revolution in Developing Countries. In P. Pigali, and G. Feder, G. (Ed). *Agriculture and Rural Development in a Globalising World: Challenges and Opportunities*. Routledge
- RGoB (2019). *Agriculture Research Strategy 2018-2028*. Dept. of Agriculture, MoAF.
- RGoB (2019). *Agriculture Extension Strategy 2018-2028*. Dept. of Agriculture, MoAF.
- RGoB (2012). *National Irrigation Strategy (Revised 2012)*. Dept. of Agriculture, MoAF.

**Date:** June, 2022

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<b>Module Code and Title:</b>	<b>DEV306 Sustainable Rural Development Approaches</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Tshering Lhamo Dukpa

**General objective:** This module deals with issues relating to economic development in the rural areas through an integrated approach. It examines various factors that drive rural development. Special attention will be given to relate the topic in the Bhutanese context.

**Learning outcomes – On completion of the module, students will be able to:**

1. Assess major roles of drivers of sustainable rural development.
2. Examine various approaches to integrated rural development.
3. Evaluate the role of technology for sustainable agriculture practices.
4. Discuss the major issue and challenges in rural development.
5. Examine the role of community and partnership building in developing rural areas of Bhutan.
6. Outline the main opportunities and constraints relating to rural development in Bhutan.
7. Analyse the supply chain for agricultural products.
8. Evaluate the contribution of education, health and gender parity in the process of rural development.
9. Analyse policy options in terms of their potential impact on rural poverty, equity and economic growth.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials: case studies, discussions, writing blogs	2	
Independent study	Written assignments	1	60
	Reading and review of class materials,	3	
Total			120

**Assessment Approach:**

A. Assignments: 20 Marks

Each student will submit two written assignments (10 marks each), covering Unit II before midterm, and Unit V after midterm. Each assignment should have a limit of 750-850 words.

- 1 Adequacy of references used
- 1 Defining the concepts
- 2 Use of effective analytical tool
- 4 Analysis and discussion on findings
- 2 Conclusion

B. Class Tests: 15 Marks

Two written tests will be conducted (7.5 marks each), from Unit III before and from Unit VI after mid-term exam, that will comprise 45 min duration and covering one unit.

C. Group Work: 15 Marks

A group of 4-6 students will complete a group project based on a Bhutan-specific case study on market access in the rural areas. Report word limit: 1200-1500. The written report will be followed by 10 minutes presentation, and 5 minutes Q&A.

- 2 Situation analysis
- 2 Process of work for methodology of the group work
- 7 Discussion on findings in the joint report
- 2 Peer review of individual reports
- 2 Presentation (individually marked)

D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: 30 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Marks</b>
A. Assignments	2	20
B. Class Test	2	15
C. Group Work	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction**

- 1.1. Concept and meaning, Basic elements of rural development
- 1.2. Drivers, facilitators, and obstacles to rural development: socio economic factors, environment challenges and institutions

**Unit II: Fundamentals of an Integrated Approach for Rural Development**

- 2.1. Approaches for rural development: exogenous and endogenous (Integrated) models, agrarian versus rural perspective, bottom up- top-down approaches
- 2.2. Tools and Approaches for Implementation of an Integrated Approach
- 2.3. The Paradoxes of Integrated Development
- 2.4. Rural Development and the Sustainable Development Goals (SDGs)

**Unit III: Agriculture and Rural Development**

- 3.1. The Central Role of Agriculture, Efficiency Gains in Agriculture, Green revolution
- 3.2. Role of investment and R&D
- 3.3. Agro-Industries in Rural Areas, Sustainable Agriculture
- 3.4. Land Use Practices and their Impact
- 3.5. The Critical Role of Smallholder Agriculture, Role of Technology
- 3.6. The Promise of Cooperatives and Contract Farming, Agricultural Extension

**Unit IV: The Environment and Rural Development**

- 4.1. Environment as Cornerstone for Rural Development: Commons, Climate Change, Linking Sustainability to Growth and Equity, Sustainable Livelihood
- 4.2. Natural Resource Management, Poverty and Environment Linkages
- 4.3. Sustainable Rural Energy

**Unit V: Market Access and Rural Development**

- 5.1. Commodities, Markets, Trade and Rural Development
- 5.2. Supply Chain Management- identification of supply chain linkages, ways to integrate it, and subsequent value creation
- 5.3. Rural Finance: Commercial banks, NBFIs, and MFIs

**Unit VI: Social Services and Rural Development**

- 6.1. Effect of Health, Education on Poverty Eradication
- 6.2. Gender Dimensions of Rural development
- 6.3. Population Issues, Reproductive Health, and the SDGs

## Unit VII: Community Vitality and Rural Development

- 7.1. Community based development Model: Building partnership for rural development, negotiation for partnership, Cooperatives
- 7.2. Participatory Approach to Local Governance
- 7.3. Migration, Role of Remittance

### Reading List:

#### Essential Reading

- Eekelen, W. V. (2020). *Rural Development in Practice: Evolving Challenges and Opportunities*. Routledge.
- ECOSEC (2003). *An Integrated Approach to Rural Development: Dialogues at the Economic and Social Council*.
- McAreavey, R. (2012). *Rural Development: Theory and Practice*. Routledge Studies in Development and Societies.
- Mehta, S. (2012). *Growth Crisis in Bhutanese Agriculture Sector: An Exploratory Analysis of Causes*. Bhutan Journal of Research and Development, 1(1). pp. 51-60. Royal University of Bhutan.
- Moseley, M. (2003). *Rural Development: Principles and Practice*. Sage publication.

#### Additional Reading

- RGoB. (2008). *Tenth Five Year Plan: Main Document*. GNHC. (For Poverty analysis)
- RGoB. (2014). *Technical Evaluation Report: Rural Economy Advancement Programme Phase 1*. GNHC.

Date: June 2022

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<b>Module Code and Title:</b>	<b>DEV307 Contemporary Literature in Economics</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Sanjeev Mehta

**General objective:** This module will introduce students to contemporary literature in economics, where 'contemporary' refer to twenty-first century work. Students will read two of the most famous books in development economics- one, - 'The Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty'. Second, "Capital in the Twenty-First Century". Together these books form the basis of new approaches to investigate major development challenges- poverty and inequality.

#### Learning outcomes – On completion of the module, students will be able to:

1. Identify major themes of twenty-first century economics literature across a number of genres and sub-genres.
2. Provide critical review of the work.
3. Examine the role of empiricism in economics writing.
4. Apply experimental based approach in the field of economics.
5. Debate on the issue of poverty and inequality.
6. Effectively communicate complex issues.
7. Organize the material for research.
8. Identify research questions for further investigation.

#### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	1	45
	Tutorials and classroom workshops	2	

Independent study	Written assignments	2	75
	Reading and review of class materials	3	
Total			120

### Assessment Approach:

#### A. Assignments: 30 Marks

Students will individually complete four assignments (7.5 marks each), two each from Poor Economics (before midterm), and Capital in 21<sup>st</sup> century (after midterm). Students will provide an analytical review of a chosen chapter from the book. The review should focus on the question raised, conceptual foundation, methodological framework, and policy implications. Each assignment should have a maximum limit of 700-800 words.

- 1 Identify research question(s)
- 2 Explain three major concepts used
- 2 Analyse the methodological framework
- 4 Discuss major policy implications
- 1 Conclusion

(Note: Take 75% of the total marks obtained to convert the marks from 10 to 7.5)

#### B. Class Tests: 20 Marks

Two written tests will be conducted (10 marks each), one test each before and after mid semester examination that will comprise 45 min duration and one test each from the two books.

#### C. Panel Discussions: 20 Marks

In two panel discussions, each covering issues in one book, a panel of 4-6 students will discuss relevant issues raised in the two books.

- 1 Professional approach in the discussion
- 2 identify at least three relevant issues
- 4 Ability to communicate in a subtle manner
- 2 Evaluate issues and policy implications
- 1 Effective/convincing responses to the questions

#### D. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and marks

Areas of assignments	Quantity	Marks
A. Assignments	4	30 (7.5 each)
B. Class Test	2	20 (10 each)
C. Panel Discussion	2	20 (10 each)
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

### Unit I: Close reading and analysis of 'Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty'

- 1.1. Think again, again :S shaped curve and poverty traps, Inverted L shaped curve and no poverty traps

- 1.2. Nutrition based poverty trap: A billion hungry people, are poor eating well and enough? exploring why poor eat so little, more important than food
- 1.3. Health based poverty trap: S shaped curve, low hanging fruits for better health, underutilised miracles of technology, health behaviour, faith, beliefs and hope, insights from behavioural economics
- 1.4. Reengineering education: top of the class, top-down education policy, private schools, curse of expectations and S shaped curve, why school fails, reengineering education
- 1.5. Role of big family: case of Pak Sudarno, wrong with the large families, how poor control fertility decisions, children as financial instruments,
- 1.6. Barefoot hedge fund managers: How poor cope risk, insurance for poor, why poor do not need insurance, economics of lending to poor, micro insights from macro programs, does micro credit work
- 1.7. Saving brick by brick: why poor do not save more, the psychology of savings, saving and self-control, getting out of the trap, reluctant entrepreneurs, business of the poor
- 1.8. Decentralization and democracy: policies and politics, changes at the margin, power to the people, ethnic divide

### **Unit II: Close reading and analysis of 'Capital in the Twenty-First Century'**

- 2.1. Introduction: Views of Ricardo, Marx, Kuznets, forces of convergence/divergence
- 2.2. Income and Capital: income and output, growth illusions and reality, Metamorphoses of capital
- 2.3. Capital- labour split in the twenty-first century return on capital in historical perspective
- 2.4. Capital to income ratio over the long run, second fundamental law of capitalism
- 2.5. Dynamics of Capital/Investment
- 2.6. Structure of Inequality: preliminary bearing, inequality of total income: two worlds, from society of rentiers to society of managers, rise of super salaries, wage inequality, inequality of capital ownership
- 2.7. Merit and inheritance in the long run
- 2.8. Regulating Capital in the Twenty-First Century

### **Reading List:**

#### **Essential Reading**

- Banerjee, A.; Duflo, E. (2011). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. Random House India.
- Banerjee, A.; Duflo, E. (2006). *Economic Lives of the Poor*. Working paper 06-29. <http://ssrn.com/abstract=942062>
- Barrett, C. B. (2003). *The Economics of Poverty and the Poverty of Economics: A Christian Perspective*. Working Papers 14747, Cornell University, Department of Applied Economics and Management.
- Piketti, Thomas (2014). *Capital in the Twenty-First Century*. Harvard University Press.

#### **Additional Reading**

- Esther Duflo*. <https://www.povertyactionlab.org/person/duflo>
- Esther Duflo: Poor Economics*. <https://www.youtube.com/watch?v=cUYzqAFrY8Y>
- Poor Economics: Teaching the Book*. <http://www.pooreconomics.com/teaching-book?page=1>
- Poor Economics*: <https://www.youtube.com/watch?v=MMOzeb2pHg0>
- Reddy, S G (2012). *Randomise this! On Poor Economics*. Journal Vol. 2(2). pp. 60-73.

**Date:** June 2022

**Module Code and Title:** CET307 International Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** This module aims to provide a framework to understand important concepts and application in the area of international economics. It entails discussion on major international trade theories, practices and policies. It enables students to examine alternative arguments based on protectionist and neo liberal approach to international trade and exchange.

**Learning outcomes – On completion of the module, students will be able to:**

1. Examine the economic importance of international trade.
2. Explain various trade theories.
3. Explain the causes and consequences of international trade.
4. Illustrate the effects of trade on labour allocation, outputs, and income distribution.
5. Analyse the importance, and impacts of trade policies.
6. Relate the trading pattern with the scale of production, and the significance of trade policies.
7. Evaluate different explanations of the links among trade, growth and development.
8. Identify the basic rationale for preferential trade areas.
9. Debate over different issues pertaining to international trade and finance.
10. Describe the role of exchange rates in open economies.
11. Critically evaluate the existing trade pattern.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	60
	Tutorials, group work, and case studies	1	
Independent study	Written assignments	1	60
	Reading and review of class materials, VLE discussions	3	
Total			120

**Assessment Approach:**

A. Assignments: 20 Marks

Each student will write two assignments, one related to a theory of international trade, before midterm, and another on Balance of Payments, after midterm (10 marks each). Assignment should have a limit of 800-1000 words.

- 2 Defining the concepts
- 6 Analysis and findings
- 2 Conclusion

B. Class Tests: 15 Marks

Two written tests will be conducted (7.5 marks each), from Unit III before midterm, and Unit IV after midterm, each for a duration of 45 minutes. Test will be based on MCQ and/or analytical questions.

C. Blog Writing: 15 Marks

Each student will critically analyse any relevant issue related to the international monetary system/ financial globalization/ Welfare impact of trade policy, and write a blog within 500-750 words.

- 3 Situation analysis
- 2 Methodology
- 9 Discussion on findings.
- 1 Language (appropriate use of technical terms)

**D. Midterm Examination: 20 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: 30 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Marks
A. Assignments	2	20 (10 each)
B. Class Test	2	15 (7.5 each)
C. Blog -Writing	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** CET103 Intermediate Microeconomics

**Subject matter:**

*(Note: In units 2, 4 and 6, the focus should be simple conceptual/ theoretical framework with graphical explanation and not mathematical treatment)*

**Unit I: Introduction**

- 1.1. Nature and scope of international economics
- 1.2. Overview of world trade and investment
- 1.3. Gravity model
- 1.4. Impediments to trade-distance, barriers, and borders

**Unit II: Theories of International Trade**

- 2.1. Theory of absolute cost advantage by Adam Smith, the loopholes of Smith's theory
- 2.2. The Ricardian theory: the concept of comparative advantage, determining trading pattern, gains from trade, and its loopholes
- 2.3. Standard trade model, using demand and supply sides to determine the pattern of mutually beneficial trade between two countries
- 2.4. Gains from Trade: exchange gain and specialization gain, decomposition of gains from trade, extreme cases of exchange gain and specialization gain
- 2.5. Demand/Supply bias, and mutually beneficial trade in a two-country, two-commodity standard trade model
- 2.6. Derivation of offer curves, and determination of terms of trade between two countries by the help of offer curves

**Unit III: Modern Theory of Trade**

- 3.1. Concepts of factor intensity and factor abundance (price definition and physical definition)



- 3.2. Factor abundance, factor intensity and mutually beneficial trade in a two-country, two-commodity, two-factor framework: Heckscher-Ohlin theorem
- 3.3. Impact of free trade on factor rewards in a Heckscher-Ohlin framework: factor price equalization theorem
- 3.4. Empirical testing of Heckscher-Ohlin theorem: Leontief Paradox, explanations of Leontief Paradox
- 3.5. Factor intensity reversal and validity of Heckscher-Ohlin theorem
- 3.6. Magnification effect of the change in factor endowment: Rybczynski theorem
- 3.7. Specific factors model: endowment difference in sector-specific factors as a basis of trade

#### **Unit IV: Trade Policies**

- 4.1. Theory of tariff: partial and general equilibrium analyses of tariff from the perspective of a small open economy
- 4.2. Effects of tariff on factor prices: Stolper-Samuelson theorem
- 4.3. Tariff by a large country, terms of trade effect
- 4.4. Prohibitive tariff: partial and general equilibrium analysis
- 4.5. Optimum tariff
- 4.6. Effective rate of protection, definition and derivation
- 4.7. Non-tariff barriers of trade: quota, subsidy to the import competing sector

#### **Unit V: Economies of Scale and Market Structure**

- 5.1. Economies of scale and market structure
- 5.2. Historical contingency, external economies of scale, and competitive advantage, the role of protection
- 5.3. Infant industry argument for protection
- 5.4. Interregional trade and economic geography: the multinational corporations

#### **Unit VI: Economic Growth and International Trade**

- 6.1. Model and basic formula
- 6.2. political economy of trade policy: the case for free trade, trade liberalization, activist trade policy
- 6.3. north-south trading relationship: Singer-Prebisch hypothesis of terms of trade decline, explanations of the hypothesis
- 6.4. decline in terms of trade and welfare loss; concept of immiserizing growth
- 6.5. Regional trading blocs: concepts, objectives and types of regional trading blocs
- 6.6. SAARC, EU, BRICS and NAFTA,

#### **Unit VII: International Macroeconomic Policy**

- 7.1. Review of Balance of Payments (BOP), the balance sheet of a country, balance of trade and balance of payments, current account and capital account
- 7.2. Approaches to BOP
- 7.3. International Monetary System
- 7.4. Foreign exchange market, organization and structure, demand and supply of foreign currency
- 7.5. Determination of exchange rate in a fixed exchange rate regime, open market operation, devaluation, its objectives and impacts, Marshall-Lerner condition, exchange rate pegging and managed float
- 7.6. Floating exchange rate regime, determination of exchange rate through demand-supply interaction, appreciation and depreciation of currency
- 7.7. Floating exchange rate regime, determination of exchange rate through demand-supply interaction, appreciation and depreciation of currency
- 7.8. Financial globalization and financial crisis

#### **Reading List:**

##### **Essential Reading**

Caves, R.E, Frankel, J.A and Jones, R. (2012). *World Trade and Payments: An Introduction.*, Pearson  
 Chacholades, M. (2012). *International Economics*. Tata-McGrawhill Edition  
 Gandolfo, G (2015). *International Trade Theory and Policy*. Springer  
 Krugman, P., Obstfeld, M., & Melitz, M. (2018). *International Economics: Theory and Policy*. India Pearson Education  
 Salvatore, D. (2019). *International Economics: Trade and Finance*. India John Wiley International Student Edition.

**Additional Reading**

Šodersten, B & Reed, G. (1994). *International Economics*. MacMillan.  
 UNCTAD (Latest). *World Trade Report*.  
 UNCTAD (Latest). *World Investment Report*.  
 FDI Annual Reports by Ministry of External Affairs, RGoB  
 Reports on Annual Trade Statistics by Ministry of External Affairs, RGoB

**Date:** June 2022

**Module Code and Title:** QME302 Intermediate Econometrics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutors:** Sanjeev Mehta (Coordinator), Dr. Chandra S. Dhakal

**General objective:** This module extends students' knowledge and understanding to more sophisticated econometric methods and techniques: simultaneous equations, binary regression models, time series analysis and panel models. The focus of this module will be on promoting understanding of the concepts and methods involved, as well as interpretation of computational (e.g., SPSS/Stata) output, and not on abstract calculations.

**Learning outcomes – On completion of the module, students will be able to:**

1. Develop and apply relevant econometric models.
2. Apply ILS and TSLS models to address simultaneous equations bias.
3. Make forecast for binary variables and interpret odd ratios.
4. Evaluate the adequacy of a given model using a range of diagnostic tests.
5. Design and conduct panel regression model
6. Conduct appropriate panel regression
7. Analyse time series data using econometric software
8. Evaluate the results of relevant econometric models.
9. Identify the strengths and weakness of the tools of econometric analysis.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Laboratory work and tutorials	2	
Independent study	Written assignments	1	60
	Reading and review of class materials,	3	
Total			120

**Assessment Approach:**

- A. Assignments: 15 Marks

Each student will submit two assignments (7.5 marks each), one before midterm, on the simultaneous equation model, and, one after midterm, on binary regression model. Each assignment should have a maximum limit of 750-850 words.

- 1 Description of the model
- 1 Clearly identifying merits and limitation of the model
- 5 Selection of appropriate procedure to handle the model
- 5 Present result
- 3 Provide clear interpretation

**B. Class Tests: 20 Marks**

Two written tests will be conducted (10 marks each), one before midterm covering units I and II, and one after midterm covering units III, IV and V. Each test will comprise 45 min duration, 10 marks each, to test the theoretical knowledge (3 questions) and ability to make correct interpretations (2 questions).

**C. Practical Exercises: 20 Marks**

Two practical exercises as laboratory work (10 marks each) will be conducted-one before and another after midterm exams, worth 10 marks each. These exercises will involve working on raw data using SPSS/ Stata, and application of a simultaneous equations/ binary regression/ panel /time series econometrics model for analysis.

- 1 Loading data in SPSS/Stata
- 1 Creation of project directory
- 4 Run econometric models along with required diagnostic tests
- 2 Convert Stata output into presentation format
- 2 Provide clear interpretation

**D. Midterm Examination: 15 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**E. Semester-End Examination: 30 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignments	2	15 (7.5 each)
B. Class Tests	2	20 (10 each)
C. Practical exercises (Laboratory work)	2	20 (10 each)
D. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** QME201 Introductory Econometrics

**Subject matter:**

(Note: abstract calculation is not required and focus should be on effective use of software and interpretation of results)

**Unit I: Simultaneous Equations Estimation**

- 1.1. Inconsistency of OLS estimator
- 1.2. Use of instrumental variables, Indirect least square method (ILS)

- 1.3. Exact identification, under-identification and over-identification, order condition for identification
- 1.4. Two-stage least squares (TSLS)
- 1.5. Durbin–Wu–Hausman test

#### **Unit II: Binary Choice Models**

- 2.1. Linear Probability Model- constrained and unconstrained LPM Limitations of LPM
- 2.2. Logit model- odds, Logit, odd ratios,
- 2.3. Maximum likelihood estimation of the population mean and variance of a random variable
- 2.4. Maximum likelihood estimation of regression coefficients
- 2.5. Likelihood ratio tests

#### **Unit III: Time Series**

- 3.1. Nature: Seasonality, stationarity and non-stationarity
- 3.2. Random walk – with and without a drift
- 3.3. AC and PAC functions
- 3.4. Tests of stationarity- DF, ADF and PP
- 3.5. Cointegration, tests of cointegrations- EG and AEG
- 3.6. Forecasting: Box Jenkins Method-ARMA and ARIMA
- 3.7. Autoregressive distributed lag (ADL) models
- 3.8. Error correction model

**Unit IV: Autocorrelation** (QME201 only deals with elementary diagnostic using DW test, the focus in part should be to use of more advanced diagnostic tools and corrective measures)

- 4.1. Autocorrelation; Breusch–Godfrey Lagrange multiplier
- 4.2. Durbin–Watson d, and Durbin h tests for autocorrelation

#### **Unit V: Panel Data Models**

- 5.1. Pooled OLS model
- 5.2. Within-groups fixed effects model
- 5.3. Least squares dummy variable model
- 5.4. Random effects model
- 5.5. Durbin–Wu–Hausman test

#### **Reading List:**

##### **Essential Reading**

- Dougherty, C. (2011). *Introduction to Econometrics*. Oxford University Press.  
 Gujarati, D. N. & Porter, D. C. (2017). *Essentials of Econometrics*. McGraw Hill.  
 Kmenta, J. (2008). *Elements of Econometrics*. Indian Reprint, Khosla Publishing House.  
 Verbeek, M (2017). *A Guide to Modern Econometrics*. Wiley.

##### **Additional Reading**

- Enders, W. (2014). *Applied Econometrics Time Series*. Wiley.  
 Kennedy, P. (2008). *A Guide to Econometrics*. Wiley Blackwell.

**Date:** June 2022

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<b>Module Code and Title:</b>	<b>UGR301 Research Methodology</b>
<b>Programme(s):</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor(s):</b>	Sonal Mehta

**General objective:** This module aims to provide students with a working understanding of research principles and a range of research methods and techniques. The module will enable students to define a clear research problem and select an appropriate method to address a research question. Students will develop the research skills and knowledge necessary to undertake an independent but supervised research project later in the programme.

**Learning outcomes – On completion of the module, students will be able to:**

1. Formulate a clear and focused research problem.
2. Identify and apply appropriate research methods to a given problem.
3. Develop an effective research design.
4. Assess the internal and external validity in a research design.
5. Collect information and data using an appropriate sampling strategy.
6. Present the results of research questions or hypothesis, using statistical/ explanatory analysis.
7. Identify the sources of biases in research.
8. Discuss the importance of ethical principles for research.
9. Explore current research using an appropriate theoretical perspective.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	In-class workshops and exercises	2	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

**Assessment Approach:**

**A. In-class Exercises: 20 Marks**

Each student will complete two in-classes exercises (10 marks each) related to problem-solving / modelling a given situation, for example related to developing a research design or sampling strategy, or applying appropriate tools to analysing sample data and deriving conclusions. Each exercise will be conducted over a 2-hr block period in-class.

- 2 Knowledge on main concept of the exercise's theme
- 2 Knowledge of alternative approaches
- 4 Appropriate and correct application of approaches
- 2 Justification for the use of the selected research design / sampling / analytical methods

**B. Draft Literature Review: 10 Marks**

Each student will undertake a literature review a minimum of 8 articles. The review will be framed in a manner that starts with broad concept/issues and progresses to specific site-centric material that frames a justification for the proposed research. The literature review should be 1,000-1,250 words in length.

- 4 Quality of analysis, justification and literature support
- 4 Overall organizing argument(s) (clarity, logic, coherence)
- 2 Mechanics (Language and referencing)

**C. Draft Research Plan: 10 Marks**

Students will individually submit a draft research plan clearly explaining what they want to measure and state the appropriate research methods to be employed.

Students will also explicitly mention a timeline for research activities and data analysis procedures. The research design will be written in 1,000-1,250 words and evaluated based on the following structure:

- 2 Introduction and research question(s)
- 2 Statement of the problems, formulating the objectives of the study
- 2 Research methods: Sampling design, procedure of sample selection and rationale of sample size
- 2 Research instrument, justification, processing and analysis of data
- 2 Mechanics (Language, organisation and referencing)

**D. Research proposal: 15 Marks**

Each student will be given sufficient time to improve upon the literature review and research design, and culminate these components into a final research proposal. The final version will be written in 2,000-2,500 words.

- 2 Clarity of research question(s), statement of the problems, objectives of the study and hypothesis
- 2 Relevant literature review that sets up the gap in existing knowledge to be addressed
- 2 Suitable research method and research instruments
- 2 Appropriate data analysis procedure and analysis
- 2 Incorporating ethical aspects and addressing biases
- 2 Mechanics (Language, organisation and referencing)

Research proposal presentation and defence: students will deliver a presentation of their research proposal. The presentations are expected to be 5-10 minutes duration.

- 2 Effective presentation (how well the presentation sets up the research question and proposes a suitable research design)
- 1 Effective defence – justification, response to questions in Q&A session

**E. Midterm Examination: 15 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**F. Semester-End Examination: 30 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. In-class Exercises	2	20 (10 each)
B. Draft Literature Review	1	10
C. Draft Research Plan	1	10
D. Research Proposal	1	15
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction**

- 1.1. Defining scientific research, scientific method, research methods and methodology

- 1.2. Types of research: exploratory, descriptive and explanatory
- 1.3. Importance of research ethics
- 1.4. Overview of ethical principles in scientific research

#### **Unit II: Basics of Research**

- 2.1. Unit of analysis
- 2.2. Concepts and constructs
- 2.3. Variables: dependent, independent, moderating and control
- 2.4. Propositions and hypotheses
- 2.5. Theories and models; inductive and deductive reasoning
- 2.6. Defining a research problem
- 2.7. Introduction to paradigms of social research: positivism, post-positivism, ontology and epistemology

#### **Unit III: Research Process**

- 3.1. Overview of the research process: observation, rationalisation and validation; Functionalistic Research Processes: exploration, research design and execution
- 3.2. Literature review: methodology, search, selecting information, critical review, referencing

#### **Unit IV: Research Design**

- 4.1. Research approaches: qualitative, quantitative and mix methods
- 4.2. Key attributes: internal and external validity
- 4.3. Brief introduction to popular research designs: exploratory, experimental and quasi experimental, field survey and secondary data analysis, case research, action research and ethnography
- 4.4. Selecting research designs

#### **Unit V: Measurement Constructs**

- 5.1. Conceptualization and operationalization
- 5.2. Variable and data types: numeric, string
- 5.3. Levels of measurement and appropriate scales: nominal, ordinal, interval, ratio and binary
- 5.4. Indexes, their construction and uses

#### **Unit VI: Sample Design**

- 6.1. Sampling process: population, sample frame, sample
- 6.2. Probability sampling: simple random, systematic, stratified, cluster multi-stage sampling
- 6.3. Non-probability sampling: convenience, quota, expert and snowball
- 6.4. Statistics of sampling: sampling distribution, confidence interval, sample size determination

#### **Unit VII: Common methods in social sciences research**

- 7.1. Data collection methods and research instrument development: Observation, interview, questionnaire, schedule methods, focused group discussion, case study
- 7.2. Interviews: key informant interviews, focused group, role of interviewer
- 7.3. Research instrument development: Questionnaires: types, response formats, coding, content and wording, sequencing, and pilot test.
- 7.4. Biases in survey research: non response bias, sampling bias, recall bias
- 7.5. Interviews: key informant interviews, focused group, role of interviewer

#### **Unit VIII: Overview of additional select research designs**

- 8.1. Experimental research - introduction of the basic concepts, treatment and control groups, distinction with other non-experimental research designs
- 8.2. Case research – introduction of the basic concepts, selection of case sites, creating appropriate instruments: structured and unstructured interviews and selecting respondents

### Reading List:

#### Essential Reading

- Bhattacharjee, A. (2012). *Social science research: Principles, methods and practices*. Global Text Project. Retrieved from [http://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbooks/3)
- Cresswell, J.W., & Cresswell, J.D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5<sup>th</sup> ed.). Sage Publications.
- Kothari, C. R. & Garg, G. (2019). *Research methodology: Methods and techniques* (4<sup>th</sup> ed.). New Delhi, India: New Age International Publishers.
- Kumar, R. (2014). *Research methodology: A Step-by-step guide for beginners* (4<sup>th</sup> ed). Thousand Oaks, CA: Sage.

#### Additional Reading

- Becker, S. & Bryman, A. (Eds.). (2004). *Understanding research for social policy and practice*. Bristol: Policy Press.
- Bromage, A. (2008). *A brief note on research ethics*. Birmingham: Higher education resources. Retrieved from <http://highereducationresources.atSPACE.com/ethics.htm>
- Bryman, A. (2012). *Social research methods*. New York, NY: Oxford University Press.
- Doane, D. & Seward, L. (2016). *Applied Statistics in Business and Economics* (6<sup>th</sup> ed.). New York, NY: McGraw Hill.
- Dixon, J.C., Singleton, R. A., & Straits, B. C. (2018). *The process of social research*. New York, NY: Oxford University Press.

**Date:** June 2022

<b>Module Code and Title:</b>	<b>DEV408 Health Economics</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Dr. Chandra S. Dhakal

**General objective:** This module provides a microeconomic framework to analyse, among other things, individual choice in the demand for health, government intervention, and aspects of inequity and discrimination in the health sector. The module also examines economics of health innovations that are crucial to expanding sustainable and relevant health care system. It will also provide an overview of health issues in Bhutan.

#### Learning outcomes – On completion of the module, students will be able to:

1. Describe economic concepts required for formulation and implementation of a health care system.
2. Evaluate strategic choices in health care.
3. Identify and discuss equity and efficiency trade-offs in the provision of public health care.
4. Evaluate key options in the provisioning of health care services.
5. Compare international health policies.
6. Describe various views on the best health care practices.



7. Identify key managerial issues in health care systems.
8. Analyse the regulatory framework for health care services.
9. Assess the quality of health care systems.
10. Analyse the importance and impact of health financing on the sectoral development of an economy,
11. Identify the channels of economic and welfare impact of health policy.
12. Examine the role incentives to influence the outcome and cost of health interventions.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lecture and case studies	3	60
	Tutorials and group work	1	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

**Assessment Approach:**

A. Assignments: 24 Marks

Each student will submit two assignments (12 marks each), one before mid-term, covering units II and III, second after mid-term covering units V and VI. Each assignment should have a maximum limit of 750-850 words.

- 1 Adequacy of references used
- 1 Defining the concepts
- 2 Use of effective analytical tool
- 6 Analysis and discussion on findings
- 2 Conclusion

B. Group Work: 15 Marks

In groups of 4, students will complete a case study on the nature of the supply of health care system. Report word limit: 1000-1200 words. The written report will be followed by a 20 min presentation.

- 1 Situation analysis
- 2 Methodology of group work
- 4 Discussion on findings in the joint report
- 3 Peer review of individual reports

Presentation

- 1 Clarity and logical flow of ideas
- 2 Presentation (individually marked)
- 2 Question and Answers

C. Critical Essay: 16 Marks

Each student will research and complete an essay on the issues related to the health behaviour of people in Bhutan. Word limit: 1500 words. The written essay will be followed by individual viva voce.

- 2 Logical flow of thoughts
- 4 Ability to comprehend relevant issues in the debate
- 4 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion

- 1 Structure of the essay
- 3 Viva

D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5 hr duration covering topics up to the mid-point of the semester.

E. Semester-End Examination: 25 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignments	2	24 (12 each)
B. Group Work	1	15
C. Critical essay	1	16
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>75</b>
<b>Semester-End Examination (SE)</b>		<b>25</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction and Overview**

- 1.1. Importance of Health Economics
- 1.2. Institutional Features of Health Care; Health Insurance
- 1.3. Government Intervention in Health Care Markets
- 1.4. Asymmetrical Information and Institutional Response
- 1.5. Equity Efficiency Trade-off and role of Government

**Unit II: Health Behaviour**

- 2.1. Health Production Function, Health as a Capital Stock, Measuring Health Capital;
- 2.2. Decision Making under Uncertainty
- 2.3. Consumer Choices about Health Behaviours, General Framework of Health Choices, Behavioural economics critique

**Unit III: Demand for health care**

- 3.1. Demand in terms of Health Insurance Coverage, Concept of Time Price; Empirical Studies of Demand
- 3.2. Income Effects on Demand for Care, Effect of Capitation on Use of Services
- 3.3. Determinants of Demand for Personal Health Care Services, Demand for private health insurance
- 3.4. Model of Demand for Insurance, Adverse Selection
- 3.5. Welfare Analysis

**Unit IV: Supply of Health Care**

- 4.1. Market for Physician Services
- 4.2. Classification of Health care System-Cash System, Private System, Managed Competition System Single and Multiple Player System
- 4.3. Medical Care Market, Alternative Models of Hospital Behaviour- profit maximizing Hospitals and Non-Profit Hospitals
- 4.4. Hospital Ownership and Performance, Regulation of Hospitals, Competition
- 4.5. Medical Malpractices, Quality of Health Care and safeguards

**Unit V: Economics of Health Innovations**

- 5.1. Pharmaceuticals and the Economics of Innovation, Decision to Invest in R&D, Incentives for Pharmaceutical Innovation
- 5.2. Pricing and new drugs; Patents and Public Policy Trade-off, Technology and Price of Health Care
- 5.3. Health Technology Assessment

#### **Unit VI: Health Policy**

- 6.1. Rationale for Public Provision for Health Care
- 6.2. Beveridge Model: Nationalized Health Care and Social Health Insurance
- 6.3. Population Aging and the Future of Health Policy

#### **Unit VII: Public Health Economics**

- 7.1. Linkages between Health and Economic Sectors
- 7.2. Impact of Health Care Financing on other Sectors
- 7.3. Economics of Health Externalities
- 7.4. Economic Epidemiology, Prospect Theory

#### **Reading List:**

##### **Essential Reading**

Bhattacharya, J., Hyde, T. & Tu, P. (2013). *Health Economics*. Palgrave Macmillan.  
 Feldstein, P.J. (2018). *Health Policy Issues: An Economic Perspectives*. HAP Book.  
 William, J. (1999). *Principles of Health Economics for Developing Countries*. World Bank Institute Development Studies.  
 World Bank (1993). *World Development Report: Investing in Health*.

##### **Additional Reading**

Guinness, L. (2011). *Introduction to Health Economics*. McGraw Hill Education.  
 RGoB (2017): *National Health Policy*. Ministry of Health

**Date:** June 2022

**Module Code and Title:** DEV409 Development Process and Institutions  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** This module covers a theoretical/conceptual framework of development processes and institutions. It examines mutually reinforcing processes and institutions that affect human choices and the effectiveness of development interventions.

#### **Learning outcomes – On completion of the module, students will be able to:**

1. Describe the role of institutions in economic development.
2. Identify the role of demographic processes in economic development.
3. Evaluate the impact of demographic trends on development outcome.
4. Identify the sources of gender biases at a household level.
5. Analyse interrelationships among land tenure system, productivity risks and returns.
6. Examine the importance of land-reforms in developing nations.
7. Examine the problems of rural finance.
8. Evaluate the role of tailor-made financial services in the rural sector.
9. Describe the significance of participatory development in a developing nation.
10. Evaluate Bhutan's progress on sustainable development goals.
11. Examine competing arguments on the issues pertaining to globalisation.

#### **Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	45
	Tutorials and classroom workshops	1	
Independent study	Written assignments	1	75
	Reading and review of class materials, VLE discussions	4	
Total			120

### Assessment Approach:

#### A. Assignment: 15 marks.

Each Student will complete an assignment to use demographic data for analysing its policy implications. Assignment should have a limit of 1000-1200 words.

- 2 Adequacy of references used
- 2 Defining the concepts
- 3 Use of effective analytical tools
- 5 Analysis and discussion on findings
- 3 Conclusion and recommendation

#### B. Class Test: 10 Marks.

A class test of 45 minutes time duration will be held covering Unit-I.

#### C. Panel Discussion: 15 Marks.

Students will work in a group of 4-6. Each group will discuss issues covered in Unit VI. Each member will be given 5 minutes to speak, followed by 2 minutes Q&A.

- 2 Effective use of time
- 5 Ability to communicate in a subtle manner
- 6 Make theoretically embedded and evidence-based discussion
- 2 Effective/convincing responses to the questions

#### D. Field Work: 15 Marks

In groups of 4-6, students will develop a report on a Bhutan-specific case study based on a sample survey on a topic related to any Unit In the module. Report word limit: 1000-1500 words. The written report will be followed by a 20 min group presentation.

- 1 Clarity of research question
- 2 Research methodology
- 6 Discussion on findings in the joint report
- 4 Peer review of individual reports
- 2 Presentation (individually marked)

#### E. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### F. Semester-End Examination: 25 Marks.

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Marks
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A. Assignment	1	15
B. Class Test	1	10
C. Panel Discussion	1	15
D. Field Work	1	15
E. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>75</b>
<b>Semester-End Examination (SE)</b>		<b>25</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction**

- 1.1. The primacy of development process: inclusive, sustainable and integrative development.
- 1.2. Role of institutions in economic development, the interrelationship between institutions and development processes
- 1.3. Types of institutions; institutions for property right, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance, and institutions for conflict management

**Unit II: Demography and Development**

- 2.1. Demographic concepts; birth and death rates, age structure, fertility and mortality
- 2.2. Demographic transitions, key transition trends, theories of fertility decline-conventional and revisionist theories
- 2.3. Malthusian theory of population trap, its criticism, and microeconomic household theory of fertility
- 2.4. Demographic dividend, modelling demographic dividend, policy options to enhance demographic dividends
- 2.5. Gender bias in preferences and outcomes and evidence on unequal treatment within households in less developed economies
- 2.6. Rural-Urban migration and urban unemployment, migration equilibrium and equilibrium rate of urban unemployment, migration and the emergence of an urban informal sector, their interrelationship

**Unit III: Land, Labour and Credit Markets**

- 3.1. The distribution of land ownership in developing nations
- 3.2. Land reform and its effects on agricultural productivity in developing nations
- 3.3. Contractual relationships between tenants and landlords, Impact of tenancy contracts on efficiency, risk and returns, behaviour of risk averse and risk neutral tenants
- 3.4. Informational problems and credit contracts, problems of finance in the rural sector of the developing nations
- 3.5. Microfinance, Grameen Bank, agent banking, CSI Bank and priority sector lending

**Unit IV: Decentralization and Participatory Development**

- 4.1. Participatory development: concept and significance
- 4.2. Decentralization and participatory development: role of decentralization in promoting participatory development
- 4.3. Role of the state in decentralization

**Unit V: Globalization**

- 5.1. Globalization from a historical perspective, the genesis of global capitalism
- 5.2. Trade, production patterns and world inequality, convergence and divergence hypotheses.
- 5.3. Underdevelopment as a historical process

**Reading List:**

## Essential Reading

- Acemoglu, D.; Robinson, J. (2010). Role of Institutions in growth and development. *Review of Economics and Institutions* Vol 1(2).
- Bardhan, P. (2006). Institutions in Development. In D. Clarke (ed). *The Elgar Companion to Development Studies* (pp.2-56). Edward Elgar Publishing.
- Ray, D. (2009). *Development Economics*. Oxford University Press.
- Rodrick, D., Subramanian, A., & Trebbi, F. (2004). Institutions Rule: The Primacy of Institutions over Geography and Integration in Development. *Journal of Economic Growth* 9(2), pp. 131-165.

## Additional Reading

- Banerjee, A., Benabou, R. & Mookerjee, D. (2006). *Understanding Poverty*. Oxford University Press.
- Bongaart, J., Gragnolati, M., Ahmed, S.A., Corker, J. (2020). *Population, Development and Policy*. New York: Population Council.
- Bordo, M.D. Taylor, A. M., & Williamson, J. G. (Ed.). (2003). *Globalization in Historical Perspective*. University of Chicago Press.
- Rajan, R., (2010). *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton Press.
- Rodrik, D. (2011). *The Globalization Paradox: Why Global Markets, States and Democracy Can't Coexist*. Oxford University Press.
- Schelling, T. (2006). *Micromotives and Macrobehavior*. W. W. Norton.
- Todaro, M.P. and Smith, S.C (2017). *Economic Development*. 12<sup>th</sup> Ed. Pearson Education
- Bhutanese microfinance reports and policies of CSOs (Tarayana and RENEW) Reports on RMA's policy on Microfinance Sustainable Development and Happiness. (2018) RGoB, United Nation's High Level Political Forum. [https://www.gnhc.gov.bt/en/wp-content/uploads/2021/09/1st-VNR\\_Bhutan\\_July2018.pdf](https://www.gnhc.gov.bt/en/wp-content/uploads/2021/09/1st-VNR_Bhutan_July2018.pdf)

**Date:** June, 2022

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<b>Module Code and Title:</b>	<b>DEV410 Behavioural Economics</b>
<b>Programme:</b>	BA in Development Economics
<b>Credit Value:</b>	12
<b>Module Tutor:</b>	Sonal Mehta

**General objective:** This module examines the psychological underpinnings of economic behaviour. It examines the validity of standard assumptions about cognitive ability, social interaction, moral motivation, and emotional responses into economic modelling. It develops the ability to design and apply behavioural interventions, like nudges, D.R.I.V.E (Define, Research, Identify, Validate and Execute) and framing.

**Learning outcomes – On completion of the module, students will be able to:**

1. Identify important foundations of behavioural economics
2. Evaluate inherent behavioural foundation for the understanding of rational behaviour
3. Describe assumptions about different ways of thinking
4. Describe why the human choices deviate from rational behaviour
5. Evaluate the role of biases in affecting human choices
6. Identify the role of social aspect on decision making process
7. Describe the factors affecting mental models
8. Examine policy implications of behavioural aspects

9. Apply D.R.I.V.E. (Define, Research, Identify, Validate and Execute) for prescribing interventions
10. Examine the behavioural insights into anti-poverty programs

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	45
	Tutorials and group work/workshops, discussions, Videos	1	
Independent study	Written assignments	2	75
	Reading and review of class materials, VLE discussions	3	
Total			120

**Assessment Approach:**

A. Assignment: 15 marks

Students will individually complete an assignment on the critical evaluation of the validity of the assumption of rationality and behavioural psychological foundations. The assignment should have a maximum limit of 1000-1200 words.

- 2 Introduction
- 3 Identification of relevant assumptions
- 5 Critical evaluation
- 3 Justification with suitable examples
- 2 References

B. Class Test: 10 marks

One class test will be conducted of 45 minutes duration and covering Unit II, Automatic Thinking. The test will contain 5 questions (3 based on conceptual understanding and 2 on problem solving).

C. Case Study: 20 marks

Students will individually complete a case study or experiment to find out how the actual choices are made by economic agents, covering units II, III and IV. Students can select the topic from among the options provided by the tutor. The cases, preferably, be related to response of the agents to policies. Report word limit: 1300-1500 words. The report will be followed by a 5-10 min presentation and Q&A.

- 2 Situation analysis
- 2 Methodology
- 5 Analysis of the information/data
- 3 Reasoning on the deviation of behaviour from the 'rationalist' perspective
- 5 Presentation of the report (2 marks content, 1 mark presentation aids, 1 mark confidence, 1 mark effective audience engagement)
- 3 Defending the findings in Q&A session

D. Group Assignment: 10 marks

A group of 4-6 students will brainstorm on a case study to design and present the intervention/policy prescription for a more effective decision making. The presentations can be in the form of charts whereby the intervention(s) is explained. Each group will get 7 minutes to make presentation and 3 minutes for Q&A session. This assignment is based on units V and VI.

- 3 Identification of the flaws in the policy intervention from behavioural perspective
- 4 Suggestions for improvement in the policy using behavioural insights
- 3 Presentation and question answer (individual)

E. Midterm Examination: Portion of Final Mark: 15 marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

F. Semester-End Examination: Portion of Final Mark: 30 marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignment	1	15
B. Class Test	1	10
C. Case study	1	20
D. Group assignment	1	10
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction**

- 1.1. Nature and scope, methods
- 1.2. Foundational concepts of orthodox economics
- 1.3. Core principles of behavioural economics

**Unit II: Automatic Thinking**

- 2.1. Two systems of thinking: automatic and deliberative
- 2.2. Biases in assessing information – framing, cognitive strain, confirmation bias, and anchoring
- 2.3. Biases in assessing value, factors affecting biases in assessing value, loss aversion
- 2.4. Policy mechanisms for social welfare- framing, anchoring, simplification, choice architecture, overcoming intention-action divides, reminders and commitment devices.

**Unit III: Thinking Socially**

- 3.1. Human sociality
- 3.2. Social preferences and their implications: social recognition and the power of social incentives, altruism, identity
- 3.3. Group dynamics: reciprocity, cooperation, crowing in and crowing out
- 3.4. The influence of social networks on individual decision making: social monitoring, increasing interactions to support new behaviours, targeting specific individuals to amplify social change
- 3.5. The role of social norms in individual decision making
- 3.6. Using norms to generate social change: working around norms, marketing norms, activating norms and changing social norms

**Unit IV: Thinking with Mental Models**



- 4.1. Mental models- individual, shared and institutional
- 4.2. Origin and importance of mental models: idiosyncratic and through experience
- 4.3. The working and use of mental models: link between perception and automatic thinking
- 4.4. The roots of mental models: historical
- 4.5. The relationship between institutions and mental models
- 4.6. The effects of making an identity salient
- 4.7. The staying power of mental models-attention and perception, testing beliefs, belief traps, ideology and confirmation bias
- 4.8. Policies to improve the match of mental models with a decision context- changing institutions, media, education method and early childhood intervention

#### **Unit V: Applications of Behavioural Economics**

- 5.1. **D.R.I.V.E.**, A practical framework for applying behavioural science Strategy – Define, Research, Identify, Validate and Execute
- 5.2. NUDGE- definition, properties, types of nudges, when people need a nudge, successful nudge interventions

#### **Unit VI: Policy implications**

- 6.1. Psychological and social perspectives on poverty
- 6.2. Assessment in terms of education, health, financing and access to infrastructure

### **Reading List:**

#### **Essential Reading**

- Congdon, W., Kling, J., & Mullainathan, S. (2011). *Policy and Choice: Public Finance through the Lens of Behavioural Economics*. Brookings Institution Press: Washington, D.C.
- Kahneman, D (2013). *Thinking Fast and Slow*. Farrar, Straus and Giroux, New York
- Laibson, David, and John A. List. (2015). *Principles of (Behavioural) Economics*. American Economic Review 105 (5) (May): 385–390. doi:10.1257/aer.p20151047
- Samson, A., & Emmerling, T. (2018). *D.R.I.V.E. A Practical Framework for Applying Behavioural Science in Strategy*. The Behavioural Economics Guide.
- Sunstein, C. (2014). *Nudging: A Very Short Guide*. Journal of Consumer policy Vol 37(4), pp;383-388.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge Improving Decisions About Health, Wealth, and Happiness*. New Haven & London: Yale University Press.
- World Bank (2015). *World Development Report 2015: Mind, Society and Behaviour*.

#### **Additional Reading**

- A Brief History of Nudge — Learn the Power of Nudge to Win at Behavioural Change* (Video). <https://www.youtube.com/watch?v=jVTg3ZsNTTY>
- Behavioural Economics – Framing* (Video). <https://www.youtube.com/watch?v=pBz9FRmx4tk>
- Bernartzi, Shlomo & Thaler, R. (2004). *Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving*. *Journal of Political Economy*, Vol 112(1). pp 164-187
- Camerer, C., Babcock, L., Loewenstein, G. & Thaler, R. (1997). *Labor Supply of New York City Cabdrivers: One Day at a Time*. *The Quarterly Journal of Economics*, Vol.112. pp. 407-441
- Fehr, E. & Gächter, S. (2000). *Fairness and Retaliation: The Economics of Reciprocity*. *Journal of Economic Perspectives*, 14(3), pp.159-181.
- Gabaix, X, & Laibson, D. (2006). *Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets*. *The Quarterly Journal of Economics*, 121(2): pp.505-540.

*Human Behavior and Economic Development (Video)*.  
<https://www.youtube.com/watch?v=9VOCVcsQ2pc>  
 Kahneman, D. & Tversky, A. (1979). *Prospect Theory: An Analysis of Decision under Risk*. *Econometrica*, 47(2), pp. 263-292.  
 Laibson, D. (1997). *Golden Eggs and Hyperbolic Discounting*. *The Quarterly Journal of Economics*, Vol 112(1), pp 443-477  
 Rabin, M. (1998). *Psychology and Economics*. *Journal of Economic Literature*, Vol 36(1), pp11-46.  
 Raganathan, V. (2022). *Irrationally Rational: The Nobel Laureates Script the Story of Behavioural Economics*. Penguin Viking.  
*The Global Future Initiative, Development Economics, The Big open questions by Dr. Kaushik Basu (video)*. <https://www.youtube.com/watch?v=LzGJtbwAm2E>

**Date:** June, 2022

**Module Code and Title:** DEV411 Urban Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sanjeev Mehta

**General objective:** This module aims to explain how economists use economic theory and applied methods to study cities and their development. It incorporates the study of space into economic models and apply them to analyse cities. It provides a systematic methodology to policy-relevant issues including housing, land-use, sprawl, transportation, segregation, crime and education.

**Learning outcomes – On completion of the module, students will be able to:**

1. Discuss theoretical concepts of urban economics.
2. Explain the existence and growth of cities.
3. Describe the principles of agglomeration economy.
4. Explain the emergence of mega-cities.
5. Apply the key concepts of urbanization, agglomeration and other core urban economics principles associated with the growth and decline of cities.
6. Explain urban growth from an economics perspective.
7. Examine the prices of land and housing in urban centres.
8. Analyse land use pattern of cities.
9. Examine the challenges related to urban transport.
10. Evaluate principal economic challenges facing contemporary cities.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials: discussions, case analysis	2	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

**Assessment Approach:**

- A. Assignment: 15 Marks

Each student will submit one assignment entailing critical analysis of a relevant urban issue, and should have a maximum limit of 1000-1200 words.

- 1 Identification of a relevant issue
- 2 Description of the issue
- 2 Use of effective analytical tool
- 8 Analysis and discussion on findings
- 2 Conclusion

**B. Project: 15 Marks**

The project will be given after midterm exams. Each student will be required to prepare a complete report on an aspect related to urban growth. Report word limit: 1000-1200 words.

- 1 Description of the project
- 1 Methodology
- 7 Discussion on findings
- 1 Structure of the report
- 3 Presentation of report
- 2 Defence of the work in Q&A session

**C. Class Tests: 15 Marks**

Two written tests (7.5% each) will be conducted for 45 min duration each, first class test will cover Unit I and the second will cover Unit VI. Approximately half of the questions will aim at explaining and applying a model.

**D. Blog Writing: 15 Marks**

Students will watch documentaries/Podcast on issues related to urban transport or urban crime, and write a brief analytical summary of it and upload as a blog. Blog word limit: 400-750 words.

- 2 Identification of relevant issues raised in the documentary/podcast
- 3 Description of the issue
- 7 Analysis and summary
- 2 Conclusion
- 1 Upload it on blogging platform

**E. Midterm Examination: 15 Marks**

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**F. Semester-End Examination: 25 Marks**

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Assignment	1	15
B. Individual Project	1	15
C. Class Tests	2	15 (7.5 each)
D. Blog writing	1	15
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>75</b>
<b>Semester-End Examination (SE)</b>		<b>25</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Introduction**

- 1.1. Six Foundational Microeconomic Concepts- opportunity cost, Nash equilibrium, Comparative Static, Pareto Efficiency, Self-Reinforcing Change
- 1.2. Scope of Urban Economics, role of economies of scale, agglomeration economies
- 1.3. Defining Cities, Backyard production, Reasons of the Existence of Cities
- 1.4. Five Axioms of Urban Economics
- 1.5. Types of Cities: Trading Cities, Factory Cities, Resource Processing Cities, Innovation Cities
- 1.6. Circular Cities: Circular Economies, Need for Circular Cities, framework for a circular city

**Unit II: City Size**

- 2.1. Benefits and Costs of Bigger Cities, Locational Equilibrium, Land Rent, Utilities
- 2.2. Size Distribution of Cities- Rank Size rule, Urban Giants, Puzzle of Large Primary Cities
- 2.3. Central Place Theory: Relationship between Size, Number, and Geographical Distribution of Cities, Principles of Arrangements of Central Place, Hierarchy
- 2.4. Locational Equilibrium
- 2.5. A Model of Laboratory Cities, Specialised and Diverse Cities
- 2.6. Urban Growth- Economic Growth, Role of Labour Market, Public Policy, Regional Context

**Unit III: Land Use Pattern**

- 3.1. Land Rent, Concept of Bid Rent Curves, and Housing Prices
- 3.2. Land Use Pattern- Spatial Distribution of Employment and Population, Population Density,
- 3.3. Land Use Zoning- Minimum Lot Zoning, Open Space, Zoning Policy, Legal Environment for Zoning
- 3.4. Urban Growth Boundaries: Concept, Winners and Losers, Trade Off Between Growth Boundaries and Open Space
- 3.5. Monocentric model: Trade-off between Housing Cost and Commuting, Interaction Between Land and Labour Markets
- 3.6. Racial Segregation Versus Diversity
- 3.7. Urban Sprawl- Facts, Causes, Consequences, and Policy Response

**Unit IV: Urban Transport**

- 4.1. Demand for Urban Travel, Private and Social cost of Travel, Equilibrium versus Optimum Tariff
- 4.2. Congestion, Congestion tax and alternatives, and Road Capacity Decision
- 4.3. Urban transport and Air Pollution, Internalisation of Externalities, Accidents
- 4.4. Commuting and Transit Ridership, cost of travel, model choice, efficient volume of ridership,
- 4.5. Transit and Land Use Pattern

**Unit V: Education and Crime in Cities**

- 5.1. Spending and Education Achievement, Spending Inequality and Public Policy
- 5.2. Private Schools, Intergovernmental Grants,
- 5.3. Education in Central Cities
- 5.4. Economic theory of Criminal Behaviour
- 5.5. Crime in Cities, Rational Criminal
- 5.6. Lawful Opportunities for Crime Education as a tool against crime

**Unit VI: Urban Housing**

- 6.1. Filtering Model of the Housing Market, Housing stepladder, subsidies, growth controls
- 6.2. Housing Policy: Public Housing, Low-income Houses and Tax incentives, housing vouchers
- 6.3. Community Development and Urban Renewal, Homelessness, Primary Mortgage Markets
- 6.4. Rent Control and Regulation Common Arguments Against Rent control, Just case eviction
- 6.5. Gentrification: meaning, neighbourhood revitalisation, displacement, community land trusts, community benefit agreements

### Reading List:

#### Essential Reading

- Brueckner. J.K. (2011). *Lectures on Urban Economics*. MIT Press.
- Glaser, G, Ghani, A.J. (2012). *The Urban Imperatives towards Competitive Cities*. OUP.
- Kim, Y.H., Short, J.R. (2008). *Cities and Economies*. Routledge.
- O'Sullivan A (2019). *Urban Economics*. McGraw Hill Irwin.
- Dhawan, P., Beckmann, J. (2018). *Circular Economy Guidebook for Cities*. CSCP.

#### Additional Readings

- Mohan Rakesh (1992). *Urban Economic and Planning Models*. World Bank occasional papers no 25.
- World Bank (2009). *System of Cities: Harnessing Urbanisation for Growth and Poverty Alleviation*

**Date:** June 2022

<b>Module Code and Title:</b>	<b>ENM305 Ecotourism</b>
<b>Programme:</b>	BSc in Environmental Management (Borrowed)
<b>Credit:</b>	12
<b>Module Tutor(s):</b>	Tshewang Dorji (Coordinator), Kinley Dorji

**General objective:** This module will introduce students to the concepts and principles of ecotourism, its role in the broader tourism sector, and its economic, socio-cultural and environmental impacts at different scales. The module will familiarize students with the general impacts of ecotourism and emerging trends and practices of ecotourism around the world. It also provides new insights into integrated ecotourism planning and development strategy which underscores efficient resources allocation, stakeholder participation and equitable benefit sharing. This module intends to prepare students to critically analyse and understand this whole gamut of ecotourism so that they can develop sustainable ecotourism ventures in Bhutan.

#### Learning outcomes – On completion of the module, students will be able to:

1. Discuss the principles of ecotourism.
2. Discuss the impacts of ecotourism on the global economy and environment.
3. Evaluate the social impacts of global tourism/ecotourism, including acculturation, religious tolerance, and political awareness.
4. Evaluate the role of international initiatives, organizations and stakeholders in ecotourism.
5. Discuss the emerging trends of ecotourism practices in the region and in the world.
6. Outline the historical trajectory of ecotourism within Bhutan.
7. Explain the integrated systems model for ecotourism planning.

8. Identify resources, products, best management practices, and opportunities in the ecotourism sector.
9. Analyse different cultural and historical perspectives on ecotourism.
10. Discuss the typical range of ecotourism policies employed by various governments globally.
11. Explain the certification systems for ecotourism.
12. Discuss the basic framework of efficient resource allocation for ecotourism planning.

#### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	75
	Discussions	1	
	Field practical work	1	
Independent study	Written assignments	1	45
	Reading and review of class materials	2	
Total			120

#### Assessment Approach:

##### A. Individual Reflection Paper: 10%

Students will individually produce a reflection paper based on the assigned readings. Reading materials will include a wide range of themes such as sustainable ecotourism, socio-cultural impacts of tourism/ecotourism, historical development of ecotourism or some recent survey reports on ecotourism in Bhutan/or in the regions. Students will review the information and produce a critical reflection (750 words) on their readings.

4% Accuracy and completeness of the work

4% Critical analysis of the issue and insightful use of class lessons to explain the significance of the findings

2% Language, organization and referencing

##### B. Block-week field-visit report: 15%

Students, in groups of 4, will undertake case study on ecotourism. Students will visit the study site during the Block Week period, read relevant secondary literature and consult support agencies (i.e., tour operators, hotels, restaurants, and homestays) that may be involved. The group report should be of 1250-1500 words and contain a common overall structure along with identified individual portions related to different cases or stakeholders from which data was collected.

Group assessment on common portions of the report (5%)

1% Organisation and structure (Introduction, methodology, discussion, and conclusion)

3% Quality of content across the Introduction (Clarity and focus, significance and proposition), Methodology (Accuracy/reliability - measurement instrument, collection, analyses, and context), Overall discussion (Interpretation and description, argument, and proposed perspectives)

1% Mechanics (language, correct use of figure and tables, citation and referencing)

Individual assessment on report portions related to individual areas visited (10%)

4% Synthesis of the information (well-supported argument for how their subject illustrates the concept or process taught in the class)

3% Analytical thinking (critically discuss the opportunities, limitations and ecotourism best practices with the adequate logical background supports)

3% Mechanics (Language and vocabulary usage)

C. Class Tests: 10%

Students will take two written class tests: one before midterm and one after the midterm (5% each) of 45-min duration covering 3-5 weeks of material.

D. Forum Discussion via VLE: 5%

Discussion 1 (5%): global ecotourism sector contemporary issues, benefits and challenges

Discussion 2 (5%): Bhutan ecotourism sector contemporary issues, benefits and challenges

The VLE forum discussions will be hosted over one day each, spread out over the semester. Students will be given readings on issues related to the upcoming discussion topic to be read, then reflected upon/discussed together in the VLE forum. Each student will have to participate with appropriate discussion points in the VLE forums in line to the flow of discussions therein. Students may make multiple posts as appropriate totalling to 300-500 words for each discussion. The contributions will be cumulatively assessed once a particular discussion concludes.

3% Quality of analysis (originality, thoughtfulness of reflection, use of relevant and adequate support for all claims made, ties analysis to relevant module concepts)

2% Articulation, accuracy, and completeness

E. Midterm Examination: 15%

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

F. Semester-End Examination: 40%

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Weighting
A. Individual Reflection Paper	1	10%
B. Block-week field-visit report	1	15%
C. Class tests	2	10%
D. Forum discussions via VLE	2	10%
E. Midterm Examination	1	15%
<b>Total Continuous Assessment (CA)</b>		<b>60%</b>
<b>Semester-end Examination (SE)</b>		<b>40%</b>

**Prerequisites:** None

**Subject matter:**

**Unit I: Introduction to ecotourism**

- 1.1. Definition of tourism
- 1.2. Types of tourism (domestic tourism, inbound tourism and outbound tourism)
- 1.3. Ecotourism (definition, concepts and principles)
- 1.4. Related terms such as nature tourism, sustainable nature tourism, cultural heritage tourism, green/sustainable tourism
- 1.5. Historical development of ecotourism
- 1.6. Types of ecotourism (cultural, scientific, educational and adventure)
- 1.7. Ecotourism in the context of other tourism types

- 1.8. Existing scenario of ecotourism in Bhutan (role of government, non-governmental organizations, tourism operators and community people)

#### **Unit II: Impacts of Ecotourism**

- 2.1. Economic Impacts (employment and fiscal impacts)
- 2.2. Environmental Impacts (pollution, biodiversity, carrying capacities)
- 2.3. Socio-cultural impacts on locals
  - 2.3.1. Impact on population structure
  - 2.3.2. Transformation of types of occupation
  - 2.3.3. Transformation of values
  - 2.3.4. Influence on traditional way of life
  - 2.3.5. Modification of consumption patterns

#### **Unit III: Emerging trends in ecotourism practices**

- 3.1. Consumer Behavioural Trends
  - 3.1.1. Green travel
  - 3.1.2. Green accommodation
- 3.2. Eco-adventurer
- 3.3. Sustainable Tourism – dimensions of sustainability and benefits
- 3.4. Heritage Tourism – concept, UNESCO World Heritage Status
- 3.5. Responsible Tourism – concept, duties of a traveller
- 3.6. Wellness Tourism – yoga, meditation, Buddhism
- 3.7. Trekking, wildlife and bird tourism

#### **Unit IV: Ecotourism Planning and Management**

- 4.1. Ecotourism Management Plans and Frameworks
- 4.2. Integrated systems model for ecotourism planning
- 4.3. Resources system planning
  - 4.3.1. Natural resource inventories
  - 4.3.2. Cultural resource inventories
  - 4.3.3. Environmental impact assessments
  - 4.3.4. Biodiversity studies
- 4.4. Resource sustainability studies
- 4.5. Human system planning
  - 4.5.1. Needs assessments
  - 4.5.2. Social impact analysis
  - 4.5.3. Attitudinal surveys
  - 4.5.4. Economic impact assessments
  - 4.5.5. Market segmentation studies
- 4.6. Stakeholder involvement and management decision making
- 4.7. Ecotourism objectives
- 4.8. Ecotourism development considerations: Product/experience, Distribution, Price, Communications
- 4.9. Evaluation measures: Effectiveness, Efficiency, Equity

#### **Unit V: Ecotourism development strategy and public relations**

- 5.1. Public relations as a tool of ecotourism development strategy
- 5.2. Community participation, mobilization and group formation
- 5.3. Access to resources and benefit sharing
- 5.4. Support to nature conservation
- 5.5. Stakeholders collaboration
  - 5.5.1. Ecotourism organization network (international and national)
  - 5.5.2. Tourism Council of Bhutan
  - 5.5.3. Tour Operators
  - 5.5.4. National NGOs and local communities



- 5.5.5. Concepts of certification systems (standards, assessment, certification, accreditation, recognition and acceptance)
- 5.5.6. Information management
- 5.5.7. National organizations – RSPN, TCB, ABTO, hotels, travel agents and tour operators
- 5.6. Case study (success and failure)

#### **Unit VI: Regulations and Policy**

- 6.1. Manila Declaration on World Tourism (1980), significance and objectives
- 6.2. International organizations and conventions
  - 6.2.1. International Ecotourism Society
  - 6.2.2. World Tourism Organization
  - 6.2.3. Linkages to Sustainable Development Goals
- 6.3. National tourism policies
  - 6.3.1. High value and low impact tourism policy in Bhutan
  - 6.3.2. Economic transformation of rural communities e.g., Phojikha valley and Paro
  - 6.3.3. Tourism Rules and Regulations 2017
  - 6.3.4. Possible implications of 'Tourism Levy Act of Bhutan 2020'

#### **List of practical work:**

Students will participate in a block-week field visit to Paro and Haa, shared with other modules in this semester. During this field trip, students will carry out different activities under three distinct categories:

##### **Pre-field work**

- a) Identify the key stakeholders and particular sites for the visit
- b) Prepare data collecting instruments
- c) Read all the relevant literatures

##### **Field activities**

- a) Undertake interviews or surveys with ecotourism operators, community members, and tourists.
- b) Prepare the outline of report
- c) Data coding and screening

##### **Post-field work**

- a) Data transcription and data analysis
- b) Complete report writing/ prepare policy memo
- c) Present the findings to the class

#### **Reading List:**

##### **Essential Reading**

- Drumm, A., & Moore, A. (2002). *An introduction to ecotourism planning*. Virginia USA: Nature Conservancy.
- Fennell, D.A. (2014). *Ecotourism* (4<sup>th</sup> ed.). New York: Routledge.
- Gurung, D.B., & Seeland, K. (2008). Ecotourism in Bhutan: Extending its benefits to rural communities. *Annals of Tourism Research*, 35(2), 489-508.
- Nature Recreation and Ecotourism Division (NRED) & Tourism Council of Bhutan (TCB). (2012). *Ecotourism Development in the Protected Areas Network of Bhutan*. Thimphu, Bhutan: Ministry of Agriculture and Forests.
- Weaver, D.B. (Eds). (2001). *The encyclopaedia of ecotourism*. London, United Kingdom: CABI Publishing.

## Additional Reading

- Duffy, R. (2002). *A trip too far: Ecotourism, politics and exploitation*. London, United Kingdom: Earthscan Publications Ltd.
- Gurung, D.B., & Seeland, K. (2011). Ecotourism benefits and livelihood improvement for sustainable development in the nature conservation areas of Bhutan. *Sustainable Development, 19*, 348-358.
- Karst, H. (2016). "This is a holy place of Ama Jomo": buen vivir, indigenous voices and ecotourism in a protected area of Bhutan. *Journal of Sustainable Tourism*, 1-17.
- Lickorish, L.J., & Jenkins, C.L. (1997). An Introduction to tourism. Butterworth Royal Society for the Protection of Nature (RSPN). *Ecotourism Guideline for Phobjikha*. Thimphu, Bhutan.
- Montes, J., & Kafley, B. (2019). Ecotourism discourses in Bhutan: contested perceptions and values. *Tourism Geographies*, DOI: 10.1080/14616688.2019.1618905.
- Montes, J., Kafley, B., Subba, D., Dema, T., Dendup, T., & Selden, P. (2019). Ecotourism and social cohesion: Contrasting Phobjikha and Laya experiences. *Rig Tshoel, 2*(1), 23- 44.
- Rinzin, C., Vermeulen, W., & Glasbergen, P. (2007). Ecotourism as a mechanism for sustainable development: the case of Bhutan. *Journal of Integrative Environmental Sciences, 4*(2), 109-125.
- Wearing, S., & J. Neil. (1999). *Ecotourism: impacts, potentials, and possibilities*. Oxford: Butterworth-Heinemann.
- World Tourism Organization. (2020). *Global code of ethics for tourism*. Set of principles from <https://www.unwto.org/global-code-of-ethics-for-tourism>.

**Date:** June 2021

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**Module Code and Title:** DEV412 Emerging Economies  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Sanjeev Mehta

**General objective:** The main purpose of this module is to introduce the students to emergence of new economic powers in the 21<sup>st</sup> century. It traces the progress of the emerging economies in the last few decades. It aims to identify the challenges faced by emerging economies, their responses to address these challenges, and trace economic and political trajectories of their growth in recent times.

**Learning outcomes – On completion of the module, students will be able to:**

1. Describe the rise of new economic powers in the twenty-first century.
2. Analyse the development of emerging economies from a historical perspective.
3. Compare the development process of the emerging economies.
4. Make a comparative assessment of the impact of economic and institutional globalisation in the emerging economies.
5. Analyse the reasons and consequences of middle-income trap
6. Examine the role of social policies in shaping income distribution during globalisation.
7. Analyse the factors contributing to industrialisation in the emerging economies.
8. Describe the process of financial colonial state building from the perspective of Singapore and Hong Kong
9. Discuss the growth experience of China and India, the leading emerging economies
10. Describe economic lessons learned by the world from experiences of emerging economies.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	45
	Tutorials and debates	1	
Independent study	Written assignments	1	75
	Reading and review of class materials	4	
Total			120

### Assessment Approach:

#### A. Assignments: 24 Marks

Each Student will write two assignments (12 marks each), making a comparative study covering any two emerging economies on a relevant topic covered in Unit II, before midterm and Unit III and IV, after midterm. Should use relevant secondary data to provide supporting evidence. The assignment should have a limit of 850-1000 words.

- 1 Justification for the selection of countries for the study
- 4 Situation analysis
- 1 Quality of language
- 5 Analysis and findings
- 1 Conclusion

#### B. Group Work: 16 Marks

Groups of 4-6 will prepare a case study of an emerging economy covering any unit on the effects of a public policy. Word limit: 850-1000 words.

- 1 Abstract
- 1 Clarity of the research question
- 3 Conceptual framework
- 7 Discussion on findings in the joint report
- 4 Viva voce (individually marked)

#### C. Critical Essay: 15 Marks

Each student will complete a critical essay on the economic or institutional impacts of globalisation, especially from the perspective of any emerging market economy. Word limit: 1000-1200 words.

- 2 Logical flow of thoughts
- 7 Ability to comprehend relevant issues in the debate
- 3 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion
- 1 Structure of the essay

#### D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### E. Semester-End Examination: 25 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

### . Overview of assessment approaches and marks

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Marks</b>
A. Assignments	2	24 (12 each)
B. Group Work	1	16
C. Critical Essay	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>75</b>
<b>Semester-End Examination (SE)</b>		<b>25</b>

**Pre-requisites:** None

**Subject matter:**

**Unit I: Emerging Economies**

- 1.1. Introduction: Three criteria for categorisation as emerging economies, regional distribution of emerging economies
- 1.2. Key trends in world economy: Asia falling behind, industrial revolution, and European miracle
- 1.3. BRICS: BRICS, Emerging Markets and the World Economy, Economic and Social Development in BRICS
- 1.4. Asia Since World War-II, Asian Miracle and uneven development
- 1.5. Challenges Ahead: middle income trap, catching up, rising wages, quality of education
- 1.6. Business Environment in Emerging Economies: market potential, infrastructure, risk factors, export marketing

**Unit II: Globalisation and Emerging Economies**

- 2.1. Anticipated impacts of globalisation from three perspectives (optimistic, alarmist and cautious),
- 2.2. Economic and institutional impacts of globalisation: political and policy making autonomy, role of national political and institutional arrangements, vertical integration and FDI, vulnerability to shocks, bankruptcy, middle income trap  
Globalisation, growth and income distribution: relationship between institutional globalisation and economic growth, impact of the size of domestic market, exports and technological capability, social policy and income distribution,
- 2.3. Globalisation and Political transformation (both at macro and micro levels): Relationship between globalisation and democratisation, de-bureaucratisation
- 2.4. Modes of global integration: Trade, FDI and capital movements

**Unit III: Role of Intra-Regional Trade in Development in Emerging Economies**

- 3.1. Role of Intra regional trade as the agent of industrialisation: levels of regional trade integration in Asia, Latin America and Africa,
- 3.2. Pre-Industrial roots and trade integration, impact of state formation,
- 3.3. Impact of Asia as the hub of international division of labour: role of locational advantage
- 3.4. Labour intensive choices, quality of labour, Capital intensive industrialisation and physical infrastructure
- 3.5. Dealing with local resource constraint- land, water and energy

**Unit IV: Specific cases for important lessons**

- 4.1. Financing colonial state building: case of Singapore and Hong Kong
- 4.2. China: Emerging state in historical perspective, Globalisation and global hegemony
- 4.3. India: Classical colonialism, era of state led national development, emergence of India in rising India

**Reading List:**

**Essential Reading**

- Anand, PB, Fennell, P., Commin, F. (2021). Handbook of BRICS and Emerging Economies. Oxford University Press.
- Cavusgil, S.T., Ghauri, P.N., Agarwal, M.R. (2013). Doing Business in Emerging Markets: Entry and Negotiation Strategies. Sage Publication.
- Hansen. A., Wethal, U. (2015). *Emerging Economies and Challenges to Sustainabilities*. Routledge.
- Looney, R.E. (Ed) (2018). *Handbook of Emerging Economies*. Routledge, London.
- Shiraishi T. & Sonobe T. (Ed.) (2019). Emerging State and Economies: Their Origin, Drivers, and Challenges ahead. Springer Singapore.

### Additional Reading

- Vivarelli, M. (2018). Globalization, Structural Change and Innovation in Emerging Economies: The Impact on Employment and Skills. IZA DP No. 11849, IZA Institute of Labour Economics.

**Date:** June 2022

**Module Code and Title:** DEV413 Industrial Economics  
**Programme:** BA in Development Economics  
**Credit Value:** 12  
**Module Tutor:** Rudrarup Mukherjee

**General objective:** This module examines the internal structure of firms, various aspects of their strategic interaction, and determinants of industrial structure.

### Learning outcomes – On completion of the module, students will be able to:

1. Evaluate the importance of specialized investment in the context of modern firms.
2. Examine the relevance of transaction costs and remedial measures for optimal input procurement.
3. Discuss the significance of the separation of control and ownership of the firm from the perspective of the incentives and limitations of the managers.
4. Analyse the pricing behaviour of firms with market power.
5. Explain analytical models of firm behaviour and strategic interaction
6. Describe the Bertrand paradox.
7. Analyse the collusive and non-collusive behaviour of firms in oligopoly markets.
8. Analyse the effectiveness of entry barriers created by firms.
9. Examine the objectives and methods of vertical restraints.
10. Examine key issues in competition policy and regulation.
11. Describe the interrelationship between the structure of market and pace of technological progress.

### Learning and Teaching Approach:

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials, workshops/group work, case studies	1	
Independent study	Written assignments	1	60
	Reading and review of class materials	4	
Total			120

### Assessment Approach:

A. Assignments: 20 Marks

Each student will submit two written assignments (10 marks each), one before midterm on Unit I, and one after midterm, covering Unit IV. Each assignment should have a maximum limit of 750-900 words.

- 1 Adequacy of references used
- 1 Defining the concepts
- 2 Use of effective analytical tool
- 4 Analysis and discussion on findings
- 2 Conclusion

B. Class Tests: 20 Marks

Two class tests will be conducted (10 marks each), one before midterm covering Unit II and one after midterm, covering Unit V after midterm. Each test will be of 45 minutes duration to answer 5 questions.

C. Case Study: 15 Marks

A group of 4-6 students will complete a group project based on a Bhutan-specific case study (on the basis of availability of data) on any of the competition policy/vertical restraint. The cases should be related to policy response of the agents. Report word limit: 750-850 words. Each group will make 10 minutes presentation on the report, followed by 5 minutes Q&A.

- 1 Situation analysis
- 1 Methodology
- 5 Analysis of the information/data
- 1 Data presentation
- 2 Identification of policy implications
- 2 Presentation of the report (individually assessed)
- 3 Defence of the findings in Q&A session (individually assessed)

D. Midterm Examination 20 Marks.

Students will take a written exam of 1.5 hr duration covering topics up to the mid-point of the semester.

E. Semester-End Examination: 25 Marks.

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

**Overview of assessment approaches and weighting**

Areas of assignments	Quantity	Marks
A. Assignments	2	20 (10 each)
B. Class Test	2	20 (10 each)
C. Case study	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>75</b>
<b>Semester-End Examination (SE)</b>		<b>25</b>

**Pre-requisites:** CET103 Intermediate Microeconomics

**Subject matter:**

**Unit I: Organization of the Firm, and Input Procurement**

- 1.1. Size of firms: categorisation based on the size of fixed investment and employment- micro, small, medium and large. Structure of firms: categorization

- based on the type of integration in the supply chain- vertical and horizontal.
- 1.2. Technological view of the firm Transaction costs-property rights approach
- 1.3. Investment specificity, types and features of investment specificity
- 1.4. Different methods of procuring specific investment, their advantages and disadvantages
- 1.5. Contract- determination of optimum contract length: marginal cost-marginal benefit approach, impact of change in contract cost on optimum contract length
- 1.6. Incomplete contracts and vertical integration and their empirical evidence

### **Unit II: Separation of ownership and control**

- 2.1. Managerial incentives and limitations, divergence from the objective of profit maximization
- 2.2. Baumol's theory of sales revenue maximization subject to a profit constraint, Needham's extension to long-run trade-off
- 2.3. Marris model of growth maximization
- 2.4. Williamson's Theory of Managerial Utility Maximization, the role of discretionary profit
- 2.5. Short run and long run trade-off between profit maximizing objective and managerial objectives, the limitations of the managers

### **Unit III: Firm conduct and market structure**

- 3.1. Short-run price competition and the Bertrand model of duopoly
- 3.2. Infinitely repeated game and the Bertrand Model; Bertrand Paradox
- 3.3. Cournot model of duopoly, and Nash Equilibrium (single shot game)
- 3.4. Cournot model and infinitely repeated game

### **Unit IV: Dynamic price competition**

- 4.1. Dynamic game with complete information: Stackelberg model
- 4.2. Price stickiness in oligopoly market: Sweezy model
- 4.3. Price signalling and price leadership: collusive oligopoly with dominant firm, determination of equilibrium price and output
- 4.4. Collusive cartel, conditions for successful cartel, price war and cartel stability: the case of OPEC
- 4.5. The empirical analysis of market power and collusive behaviour

### **Unit V: Entry deterrence and entry accommodation**

- 5.1. Structural barriers to entry: absolute cost advantage, economies of scale, natural product differentiation, geographical and legal barriers to entry
- 5.2. Strategies to deter entry, taxonomy of entry deterrence, price adjustment vs quantity adjustment
- 5.3. Limit pricing, limit pricing with absolute cost advantage, and limit pricing with economies of scale, predatory pricing, the probable responses of the entrants to predatory pricing, critical review of predatory pricing
- 5.4. Strategic product differentiation, examples and impacts
- 5.5. Signalling commitment and entry deterrence game, passive vs committed incumbent

### **Unit VI: Vertical restraints**

- 6.1. Concept, difference between vertical restraint and normal transfer of ownership
- 6.2. Efficiency explanations for vertical restraints
- 6.3. Vertical and horizontal externalities
- 6.4. Vertical restraints as instruments that restrict competition
- 6.5. Empirical evidence

### **Unit VII: Competition policy and regulation**

- 7.1. Competition policy: Objectives and overviews
- 7.2. Alternative views on Competition Policy, perfect vs imperfect competitions, allocative and productive efficiency

- 7.3. Current issues in competition policy: Competition Policy in Bhutan
- 7.4. Regulation of firms with market power under symmetric information and asymmetric information
- 7.5. Competition and R&D: Relationship between degree of competition and pace of technological progress

### Reading List:

#### Essential Reading

- Belleflamme, P. & Peitz, M. (2015). *Industrial Organization: Markets and Strategies*. (2<sup>nd</sup> Cambridge University Press.
- Church, J.R. & Ware, R. (2000). *Industrial Organization: A Strategic Approach*. McGraw-Hill.
- Lipczynski, et al. (2017). *Industrial Organizations: Competition, Strategy and Policy*. (5<sup>th</sup> ed) India. Pearson
- Tirole, J. (1988). *The Theory of Industrial Organization*. Cambridge, MIT Press.

#### Additional Reading

- Armstrong, M., Cowan, S. & Vickers, J. (1994). *Regulatory Reform*. Cambridge, MIT Press.
- Bolton, P., Brodley, J.F., & Riordon, M.H. (n.d.) *Predatory Pricing: Strategic Theory and Legal Policy*. Department of Justice, USA.  
<http://www.justice.gov/atr/predatory-pricing-strategic-theory-and-legal-policy>
- Hinde, K. (n.d.) Kevin Hinde's Cyber Economics Tour. Retrieved from <http://www.kevinhinde.com> (for instructor's resources).
- RGoB (2020). *National Competition Policy*. GNHC.
- RGoB (2012). *Consumer Protection Act of Bhutan*. GNHC.

**Date:** June, 2022

**Module Code and Title:** UGR404 Undergraduate Research Project  
**Programme:** BA in Development Economics  
**Credit Value:** 24  
**Module Tutor(s):** Sonal Mehta (Coordinator), Sanjeev Mehta

**General objective:** The module aims to enable students to engage in a focused and sustained piece of research and to apply the theoretical knowledge and skills developed in prior modules to the research process for the production of a written project report.

#### Learning outcomes – On completion of the module, students will be able to:

1. Compile an annotated bibliography.
2. Critically evaluate current research within a specialist research area drawing on appropriate theoretical perspectives.
3. Analyse relevant literature and write a literature review on a specific topic within the chosen subject area.
4. Develop focused research questions.
5. Select and use suitable methods and analyses to examine research questions appropriate to the research area.
6. Evaluate ethical constraints in the conduct of research.
7. Propose and defend an independent research project plan.
8. Collect data using methods appropriate to the area of work.
9. Evaluate the quality of data collected, including screening data for issues with reliability, validity, and bias.
10. Critically analyse data using appropriate methods and techniques.



11. Transform raw data into specific, concise outputs as appropriate for a particular project, e.g., graphs, tables, diagrams, etc.
12. Formulate sound discussion points and conclusions based on research findings.
13. Effectively communicate and defend their research work.
14. Propose possible alternative approaches and future directions.

**Learning and Teaching Approach:**

Sem	Type	Approach	Hours per week	Total credit hours
1 of 2	Contact	Lecture, General supervision	4	60
	Independent Study	Independent study (including literature review and work on research proposal) Field work / data collection	4	60
2 of 2	Contact	Workshops on select topics and presentations, General supervision	4	60
	Independent Study	Field work / data collection, Data analysis and report writing	4	60
<b>Total</b>				240

For this module, every student is required to study a specific topic under the supervision of a member of the academic staff. The work will be of an investigative nature and may have analytical, numerical, design and experimental elements involved in it. The initiative for carrying out all aspects of the work rests with each student. Individual students can carry out an investigation into a problem either chosen from a list of suitable problems proposed by the supervisor or of their own suggestion, in which case, it must be approved by the supervisor.

Projects will have to be taken up individually. A student project will lead to the production of a written report. A project can be based on primary data or secondary data or both.

Students will be required to research on any relevant topic, with the support of their supervisor, in order to develop a research question and to design a study. The supervisor's support will continue through data collection, data analysis and the discussion of results. A series of teaching sessions covering methods, analyses, ethics, and writing from both qualitative and quantitative perspectives will be provided in addition to supervisory support.

Semester	Tasks to be performed
Sem I, Year 4	<ol style="list-style-type: none"> <li>1. Identify the research question(s) (by 3<sup>rd</sup> week)</li> <li>2. Undertake literature review and maintain notes (by 7<sup>th</sup> week)</li> <li>3. Determine an appropriate research method (by 8<sup>th</sup> week)</li> <li>4. Design sample plan (if any) (by 9<sup>th</sup> week)</li> <li>5. Determine the variables to be studied (by 10<sup>th</sup> week)</li> <li>6. Prepare a research proposal (by 12<sup>th</sup> week)</li> <li>7. Presentation (by 14<sup>th</sup> week)</li> <li>8. Data collection (during winter break)</li> </ol>
Sem II, Year 4	<ol style="list-style-type: none"> <li>9. Arrange and Analyse the data (by 3<sup>rd</sup> week)</li> <li>10. Prepare a draft report (by 7<sup>th</sup> week)</li> <li>11. Improve upon the draft report based on feedbacks</li> <li>12. Submit the final report (by 12<sup>th</sup> week)</li> <li>13. Present and defend the findings (by 15<sup>th</sup> week)</li> </ol>

### Role of Supervisors

The primary function of the supervisor is to provide overall and general guidance to help student to develop a logical and rational basis for research. Key functions expected of the supervisor:

1. Assist the student: to clarify the topic; to be clearly focused and not be over-ambitious; and to advise the student on the viability of ideas.
2. Direct the student to relevant areas of information, literature sources and specialised internal/external help.
3. Advise on appropriate methodologies/techniques.
4. Advise on referencing style and the problem of plagiarism.
5. Maintain regular supervisory contact with the student.
6. Regularly monitor the student's work. Supervisors should keep a written log of the opportunities for formal work offered to students and encourage students to keep a written record of all supervisory contact/support noting key points of discussion.
7. Assist the student in managing the timetable of the project.
8. Assist the student in identifying when problems are liable to be encountered and how they might be tackled.
9. Ensure the student is made aware of inadequate progress, standards of work below the expected level or any assessments which do not reach the required standard - consistently unsatisfactory progress should be made known to the student in writing.
10. Read and comment on drafts of the project report and return such work with constructive criticism and in reasonable time.

### Role of Students

The prime responsibility for the management of the project rests with the student, who must maintain dialogue with the supervisor. The responsibility for the work submitted is entirely that of the student. The student will:

1. Manage the relationship with his/her supervisor, keeping in regular contact with him/her as planned.
2. Discuss with the supervisor the type of guidance and feedbacks that he/she finds most helpful;
3. Agree a schedule of meetings with the supervisor for reports/briefing on progress, ensuring the agreed schedule is adhered to and any deadlines met.
4. Take the initiative in discussing any problems with the project work and/or its supervision so that these can be resolved as soon as possible.
5. Keep a logbook of work conducted related to the project. This would include: notes on discussions/correspondence with supervisor(s) and any other internal/external specialists; literature read and comments; ideas/designs; results of tests/experiments; problems found and solutions; equipment details and settings; project costs; resources used; diagrams, plans, sketches, photographs; raw data; etc.
6. Submit the project report and/or other items in the specified format.

### **Assessment Approach:**

Students' performance will be assessed by several elements of continual assessment throughout the year. The first element consists of a Logbook, as an examinable record of personal input to the project. Next, there will be two panel meetings at which the student's project will be discussed with a panel of staff members, the second of which will include a formal presentation of the research work by the student. Between these meetings and shortly before the winter vacation, students will be required to submit a progress report, together with the logbook recording the activities, for assessment by the Module Coordinator and the supervisor. Finally, students will submit two copies of the final project report, for which detailed instructions will be provided in the procedure issued at the start of the project cycle.

### Semester I of Year 4

#### A. Annotated bibliography: 5 Marks

Students will require to read at least 5 articles for this exercise and submit the annotated bibliography using APA referencing style. Students will select primary articles from different sources as appropriate (e.g., journal article, edited book, web article). Each annotation will be accompanied by a brief write up of about 200 words.

- 1 Statement of research topic along with APA references list of 10 potential sources
- 3 Reflection/annotation on 5 articles: accuracy and clarity of the summary of the sources
- 1 Mechanics (Language, organisation and referencing)

#### B. Literature review draft: 5 Marks

Students will produce a literature review (1,250-1,500 words) on clearly identified bodies of literature pertaining to the topic chosen, incorporating analysis and synthesis as well as some evaluation of outstanding knowledge gaps to justify the research work within the context and history of what is already known.

- 2 Quality and breadth of sources selected for adequate coverage of the topic
- 2 Review and evaluation of the sources
- 3 Incorporating analysis and synthesis of sources (ability to analyse and synthesize major arguments in the reviewed literature)
- 3 Mechanics (Language, organization and referencing)

#### C. Methodology draft: 5 Marks

Students will write the research methodology (approximately 1,000-1,500 words) describing the methods used to collect and analyse data; explanation about data collection instruments and their suitability; explanation on sampling or selection criteria where appropriate; explanation on technical methodology where appropriate; statement on validity and ethics.

- 2 Explanation and justification of the methods selected
- 3 Discussion on the research instrument selected for data collection
- 3 Procedure of sample selection, justification, statement on validity and ethics
- 2 Mechanics (Language, organization and referencing)

#### D. Research proposal: 15 Marks

Students must complete a research proposal (2,500-3,000 words) that clearly addresses the linkage between research question and research methodology and ensures that ethical considerations are incorporated. Students will be given sufficient time to improve upon the annotated bibliography, draft literature review and draft methodology, and culminate these components into the final research proposal

- 2 Clear and focused research question
- 2 Relevant and analytical literature review
- 2 Sound theoretical framework
- 2 Ethical considerations
- 2 Appropriate research methodology
- 1 Effective sample plan
- 2 Clear and realistic work plan
- 2 Proposal defence

#### E. Research process: 5 Marks

Students will regularly use a logbook for maintaining records. Supervisors will check the checking the progress of the students' work periodically through individual meetings and evaluation of logbook records, as well as communications by e-mail

and through VLE. The research process will continue to be evaluated into the next semester.

- 2 Record keeping - required logbook entries are properly made
- 2 Student's adherence to the work plan and ability to meet deadlines as planned
- 1 Student's timely responses to the supervisor along with submission of required documentation and evidences as part of the academic communication process

#### Semester II of Year 4

##### F. Data collection and preliminary findings: 5 Marks

Students will submit their collected data along with a write-up of the preliminary findings of the research in approximately 1000-1250 words. This will give some sense of the research findings, allowing the module tutor to advise on the need for clarifications and future improvements.

- 3 Adequacy of data collected to support the research findings (data on all the variables collected as planned)
- 2 Reliability of data

##### G. Draft report: 15 Marks

Students will submit a comprehensive draft report in the desired format including all requisite sections.

- 2 Introduction, statement of the problem
- 3 Formulation of research question(s), objectives of the study and hypothesis
- 4 Literature review
- 3 Research method, data collection instruments and analysis procedure
- 6 Findings, discussion and conclusion
- 2 Mechanics (Language, organization and referencing)

##### H. Final report: 35 Marks

Students will submit a complete research report, written in 8,000-10,000 words, that takes a reader through the entire research process, the context of the study, the knowledge gap addressed, the methodology, the results and their interpretation, discussion and conclusions, and an evaluation of the merits and limitations of the study along with future directions. Students will be provided with a full outline of the required sections and their expected contents along with grading rubrics for all components.

- 2 Introduction, statement of the problem
- 3 Formulation of research question(s), objectives of the study and hypothesis
- 9 Literature review
- 6 Research method, data collection instruments and analysis procedure
- 12 Findings, discussion and conclusion
- 3 Mechanics (Language, organization and referencing)

##### I. Presentation and defence of the findings: 10 Marks

Each student will make a 15-20 minutes presentation to the supervisor and additional examiners on the report and face Q&A session.

- 6 Effective presentation (how well does the presentation address specified criteria, quality of overall narrative and claims – content analyses)
- 2 Articulation and Language use
- 2 Effective defence – justification, response to questions in Q&A session

#### **Overview of assessment approaches and marks**

Areas of assignments	Quantity	Marks
A. Annotated bibliography	1	5
B. Literature review draft	1	5
C. Methodology draft	1	5
D. Compiled research proposal	1	15
E. Research process	1	5
F. Data collection and preliminary findings	1	5
G. Draft report	1	15
H. Final report	1	35
I. Presentation and defence of the findings	1	10
<b>Total Continuous Assessment (CA)</b>		<b>100</b>

**Pre-requisites:** UGR301 Research Methodology

**Subject matter:** (Note: tutors will give lecture/presentation on the upcoming topics, and provide general feedback on the previous tasks, 2 hours a week)

**Unit I: Review on the research planning process**

- 1.1. Importance of the literature review
- 1.2. Narrowing down a research area to a specific research question
- 1.3. Adoption of appropriate research designs
- 1.4. Selection of appropriate data collection and analysis methods
- 1.5. Realistic work planning for data collection

**Unit II: Select topics in research ethics**

- 2.1. Review on ethical considerations in research
- 2.2. Responsible conduct of research
- 2.3. Protection of research subjects and informed consent
- 2.4. Avoiding biases, common errors in question formulation and data analysis

**Unit III: Select topics in data analysis**

- 3.1. Evaluating data quality
- 3.2. Screening data for issues with reliability, validity, and bias
- 3.3. Guidelines and best practices on data presentation

**Unit IV: Research reports**

- 4.1. Standard parts of research reports
- 4.2. Drawing appropriate conclusions
- 4.3. Contextualizing research
- 4.4. Preparing research papers for publication
- 4.5. Guidelines on communicating and presenting research

**Reading List:**

**Essential Reading**

- Bhattacharjee, A. (2012). *Social science research: Principles, methods and practices*. Global Text Project. Retrieved from [http://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbooks/3)
- Cresswell, J.W., & Cresswell, J.D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5<sup>th</sup> ed.). Sage Publications.
- Kothari, C. R. & Garg, G. (2019). *Research methodology: Methods and techniques* (4<sup>th</sup> ed.). New Delhi, India: New Age International Publishers.
- Kumar, R. (2014). *Research methodology: A Step-by-step guide for beginners* (4<sup>th</sup> ed). Thousand Oaks, CA: Sage

**Additional Reading**

- Becker, S. & Bryman, A. (Eds.). (2004). *Understanding research for social policy and practice*. Bristol: Policy Press.
- Bromage, A. (2008). *A brief note on research ethics*. Birmingham: Higher education resources. Retrieved from <http://highereducationresources.atSPACE.com/ethics.htm>
- Bryman, A. (2012). *Social research methods*. New York, NY: Oxford University Press.
- Doane, D. & Seward, L. (2016). *Applied Statistics in Business and Economics* (6<sup>th</sup> ed.). New York, NY: McGraw Hill.
- Dixon, J.C., Singleton, R. A., & Straits, B. C. (2018). *The process of social research*. New York, NY: Oxford University Press.
- Office of Behavioral and Social Sciences Research, US National Institutes of Health. (n.d.). *Qualitative methods in health research: Opportunities and considerations in application and review*. <http://obssr.od.nih.gov/pdf/Qualitative.pdf>
- Steneck, N. (2006). ORI introduction to the responsible conduct of research. Office of Research Integrity, US Department of Human and Health Services. <http://ori.dhhs.gov/education/products/RCRintro/index.html>

**Date:** June 2022

**Module Code and Title:** FLT101 Financial Literacy  
**Programme:** BA in Development Economics  
**Credit:** 12  
**Module Tutor:** Tshering Lhamo Dukpa

**General objective:** This introductory financial literacy module covers basic concepts and applications for personal financial planning most likely to be applicable within students' own lives. The module aims to develop confidence and practice with a range of topics such as financial terminology, financial security, budgeting, credit control, financial tangles, and investment management.

**Learning outcomes – On completion of the module, students will be able to:**

1. Explain relevant financial terminologies.
2. Discuss the importance of money, banking, and the financial markets in an economy.
3. Identify the purpose and value of different financial services provided by various financial institutions.
4. Calculate the impact of time on the value of money.
5. Develop personal spending and savings plans.
6. Identify and prioritize personal money management goals.
7. Assess the general risks and returns from investments.
8. Discuss fundamental concepts of financial technology and its evolution.
9. Identify fraudulent practices in the financial environment and legal recourses thereof.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	3	60
	Discussions and debate; Case studies, and presentations	1	
Independent study	Assignments	2	60
	Reading and review of class materials	2	
Total			120

## Assessment Approach:

### A. Class tests: 10 Marks

Each student will complete two class tests (5 marks each), one before midterm, covering Unit I, and one after the midterm exam, covering Unit IV. Each test will be of 45 min duration and will evaluate students' knowledge of specific concepts and their applications.

### B. Case analysis and presentation: 15 Marks

Students in groups of 4-6 will analyse assigned cases of hypothetical/simulated groups of individuals (e.g., young families) having different biographical and financial profiles. The profiles will include simulated career and financial profiles of the adults (e.g., annual income, debt/liabilities, and savings/assets) and basic biodata on dependents. Students will need to come up with debt management plans and spending budgets accounting for housing, utilities, phone, food, transportation, savings and investments, vacations, donations, emergencies, etc. After submitting an initial plan for 10 years, the tutor will change information regarding employment, family changes or other unforeseen obstacles. Students will then reassess their finances and re-evaluate choices.

Necessary background information will be provided and progressive submissions and interactions with the tutor will occur through the VLE. Upon completion, the groups deliver presentations of approximately 15 min.

- 5 Prudent, logical, and balanced initial financial plan
- 5 Reflective reassessment and re-evaluation of the initial plan and choices following change in the scenario
- 5 Presentation Individual marks will be assessed on following criteria:
  - 3 Relevant subject knowledge and ability to answer Q&A
  - 2 Presentation skills

### C. Podcast creation: 15 Marks

Students will form groups of 4-6 members and compose a feature podcast on a tutor approved topic related to personal financial management advocacy. The podcast should be between 5-10 minutes in length.

- 4 Comprehensive proposal on topic development with tutor
- 6 Quality of preparation on topic, including relevance and timeliness
- 3 Organization
- 2 Effective oral delivery

### D. Assignment: 15 Marks

Each student will prepare their personal spending, saving and investment plan based on their personal financial goals by applying the techniques taught in the module. The plan should be made using an appropriate template provided by the tutor.

- 4 Appropriate use of template
- 6 Use of appropriate theories and techniques for the construction of the plan
- 5 Prudence and realism in financial planning

### E. Midterm Examination: 15 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended problem-solving and scenario interpretation questions.

### F. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in

nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended problem-solving and scenario interpretation questions.

### Overview of assessment approaches and weighting

Areas of assignments	Quantity	Weighting
A. Class tests	2	10 (5 each)
B. Group case analysis and presentation	1	15
C. Group podcast creation	1	15
D. Assignment	1	15
E. Midterm Examination	1	15
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-end Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

#### Unit I: Introduction to financial systems

- 1.1. Financial literacy and its importance
- 1.2. Financial institutions in Bhutan
  - 1.2.1. Commercial banks
  - 1.2.2. Development financial channels (non-banking and microfinance)
- 1.3. Financial markets in Bhutan
  - 1.3.1. Primary
  - 1.3.2. Secondary
- 1.4. Financial services in Bhutan
  - 1.4.1. Insurance
  - 1.4.2. Mutual funds
  - 1.4.3. Other financial services

#### Unit II: Time value of money

- 2.1. Introduction to time value of money
- 2.2. Simple interest and compound interest
- 2.3. Compounding and discounting
- 2.4. Annuity
- 2.5. Using spreadsheets and mobile apps for calculating time value of money

#### Unit III: Personal finance management

- 3.1. Introduction to personal finance
- 3.2. Concepts and evolution of money
- 3.3. Personal financial goals
- 3.4. Spending and opportunity cost
- 3.5. Budgeting
- 3.6. Retirement planning
- 3.7. Tax filing

#### Unit IV: Debt management

- 4.1. Introduction to debt management and its importance
- 4.2. Productive and unproductive debt
- 4.3. Choosing a source of credit
- 4.4. Costs of credit alternatives
- 4.5. Responsible borrowing

#### Unit V: Investment

- 5.1. Introduction to investment management
- 5.2. Investment avenues in Bhutan
- 5.3. Risks and returns



- 5.4. Selecting appropriate investment options

#### **Unit VI: Financial technology**

- 6.1. Introduction and evolution of financial technology
- 6.2. Current digital services in Bhutan and central bank digital currency
- 6.3. Benefits and challenges of financial technology
- 6.4. Cryptocurrency and its potential and risks
- 6.5. Use of FinTech for financial inclusivity

#### **Unit VII: Fraudulent practices and legal recourses**

- 7.1. Types of financial fraud
- 7.2. Preventive strategies
- 7.3. Legal protection against fraud
- 7.4. Consumer Protection Act of Bhutan

#### **Reading Lists:**

##### **Essential Reading**

- Financial Institutions Training Institute (FITI). (2020). *Financial education curriculum*. FITI.
- Koblner, B. (2017). *Get a financial life: Personal finance in your twenties and thirties*. Simon and Schuster.
- Mulcaire, S. (2017). *The 21st century student's guide to financial literacy - Getting personal* (1<sup>st</sup> ed.). C21 Publishing.
- Pandey, I. M. (2021). *Financial management* (12th ed.). Pearson.

##### **Additional Reading**

- Aprea, C., Wuttke, E., Breuer, K., Koh, N. K., Davies, P., Greimel-Fuhrmann, B., & Lopus, J. S. (2016). *International Handbook of Financial Literacy* (1<sup>st</sup> ed.). Springer.
- Consumer Protection Act of Bhutan. (2012). Retrieved from [https://www.nationalcouncil.bt/assets/uploads/docs/acts/2014/Consumer\\_Protection\\_Act\\_of\\_Bhutan\\_2012eng8th.pdf](https://www.nationalcouncil.bt/assets/uploads/docs/acts/2014/Consumer_Protection_Act_of_Bhutan_2012eng8th.pdf)
- Drake, P. P., & Fabozzi, F. J. (2010). *The Basics of Finance: An Introduction to Financial Markets, Business Finance, and Portfolio Management* (1st ed.). Wiley.
- Kidder, C. (2021). *Fintech: Financial technology research guide*. Library of Congress. Retrieved from <https://guides.loc.gov/fintech>

**Date:** June 2022

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**Module Code and Title:**      **DEV414 Human Development**  
**Programme:**                      BA in Development Economics  
**Credit Value:**                    12  
**Module Tutor:**                   Sanjeev Mehta

**General objective:** Focus of this module is to inform students about the shift in development thinking towards human development, and to trace the evolution of this concept. This will enable students to understand and analyse the context and setting that strengthens human development approach in governance.

#### **Learning outcomes – On completion of the module, students will be able to:**

1. Describe conceptual foundations of human development.
2. Describe various approaches to human development.
3. Analyse the reasons that led to the emergence of different approaches to development.
4. Compare the capability approach with other approaches.
5. Examine the role of social capital in economic development.
6. Discuss concepts of human rights, human security, MDGs and SDGs.

7. Examine innovation in the human development indices.
8. Discuss the relevance and application of these indices for policy purposes.
9. Assess the linkages between governance and human development.
10. Explain the linkages of human development with globalisation.
11. Examine the social security system in Bhutan.

**Learning and Teaching Approach:**

Type	Approach	Hours per week	Total credit hours
Contact	Lectures	2	60
	Tutorials, group work, and debates	2	
Independent study	Written assignments	1	60
	Reading and review of class materials	3	
Total			120

**Assessment Approach:**

A. Assignments: 20 Marks

Each Student will submit two assignments (10 marks each), one before midterm examination, covering Unit II, and another after midterm examination, covering Unit IV. Each assignment should have a maximum limit of 750-850 words.

- 1 Identification of a relevant issue
- 1 Defining associated concepts
- 1 Use of an appropriate methodological framework
- 5 Analysis and findings
- 2 Conclusion

B. Group Work: 15 Marks

Groups of 4-6 students will complete a case study based on any relevant issue related to the institutions of social capital in Bhutan. Report words limit: 750-850 words.

- 1 Situation analysis
- 2 Methodology of group work
- 6 Discussion on findings in the joint report
- 4 Peer review of individual reports
- 2 Presentation (individually marked)

C. Critical Essay: 15 Marks

Each student will complete an essay on the topics related to emerging governance/institutional challenges to the human development. Word limit: 1000-1200 words.

- 2 Logical flow of thoughts
- 7 Ability to comprehend relevant issues
- 3 Evidence based arguments
- 1 Language skills
- 1 Subtleness of conclusion
- 1 Structure of the Essay

D. Midterm Examination: 20 Marks

Students will take a written exam of 1.5-hr duration covering topics up to the mid-point of the semester. The exam will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

E. Semester-End Examination: 30 Marks

Students will take a written exam of 2.5-hr duration encompassing all the subject matter covered in the semester. This assessment is comprehensive and summative in nature, and will comprise structured questions like MCQ, fill-in-the-blanks, matching, definition, as well as open-ended essay questions.

#### **Overview of assessment approaches and weighting**

<b>Areas of assignments</b>	<b>Quantity</b>	<b>Marks</b>
A. Assignments	2	20 (10 each)
B. Group Work	1	15
C. Critical Essay	1	15
D. Midterm Examination	1	20
<b>Total Continuous Assessment (CA)</b>		<b>70</b>
<b>Semester-End Examination (SE)</b>		<b>30</b>

**Pre-requisites:** None

**Subject matter:**

#### **Unit I: Concepts of Human Development and its Evolution**

- 1.1. Conceptual Foundation: Choice, Functioning and Capability
- 1.2. Capability Approach: Role and relevance, capabilities and freedom, criteria for selecting capabilities, critique of capability approach
- 1.3. Alternative Approaches: Commodity based systems and utility approach, quality of life, basic need approach, Rawlsian approach
- 1.4. Human Rights: Right to development, facets of human freedoms, role of human rights in empowering people, promoting rights in human development
- 1.5. Human Security: Seven components of human security-economic, food, health, environmental, personal, community and political
- 1.6. Social Capital: Importance of 'f- connection' in development, meaning of social capital, link between social capital and human capital, obligations, expectations, and trustworthiness of social structures, social structures and social capital, social capital and wellbeing: role of community vitality, trust, tolerance and values

#### **Unit II: Measuring human development**

- 2.1. Seven Dimensions of Human Development: empowerment, cooperation, equity, sustainability, security, productivity, and participation
- 2.2. Capability Deprivation: income poverty and inequality, poverty and social conflict, multi-dimension approach to poverty, human poverty
- 2.3. Indices: Need for indices (discuss limits of GDP per capita), earlier indices- PQLI, DALY, social capability index, HDI, HPI-1, HPI-2, GDI and GEM, impact and limitation of HDI
- 2.4. Global Trends in HDI: comparing and contrasting performance (cross sectional and inter-temporal)

#### **Unit III: Governance and Institutions of Human Development**

- 3.1. Conceptualising Governance: Definition, types- economic, political, and civil, emerging issues in governance
- 3.2. Major Players in Governance: State- legislative, judiciary, executive, tiers of government—national, sub-national, local, market, civil society- NGOs, media and people's organisations
- 3.3. Elements of Governance- Institutions, delivery mechanisms, law, rules and procedures
- 3.4. Linkage between Governance and Human Development: Political freedom, participation, decentralisation, empowerment, equity and efficiency, transparency and accountability

#### **Unit IV: Major Issues in Human Development**

- 4.1. Impact of Globalisation: inter-country and intra country disparities, marginalisation of the disadvantaged groups, impact on local culture, consumerism
- 4.2. Globalisation and Human Development: opportunities and vulnerabilities, overcoming fiscal compression, enhancement of capabilities, gender issues, worker's right, food and nutritional security

#### **Unit V: Bhutanese Perspective**

- 5.1. Poverty Alleviation: Trends in income and human poverty
- 5.2. Non-income Dimension of Deprivation- food, health, education, gender empowerment
- 5.3. Social Security: Social safety nets, social security in the informal sector, Role of *kidu*

#### **Reading List:**

##### **Essential Reading**

- Gerald M. Meier and Joseph E. Stiglitz (eds.) 2001. *Frontiers of Development Economics*. Oxford University Press, New York.
- Nussbaum Martha and Amartya Sen (eds.), (1991). *The Quality of Life*. Oxford University Press, Oxford.
- Putnam,R.D. (2001). *Bowling Alone: The Collapse and Revival of American Community*. Touchstone Books by Simon & Schuster.
- Sakiko Fukuda-Parr and A.K. Shiva Kumar (eds.) 2000. *Readings in Human Development: Concepts, Measures and Policies for a Development Paradigm*. Oxford University Press, New Delhi.

##### **Additional Reading**

- Ahn, T.K., Ostrom, E. (eds.), 2010. *Foundations of Social Capital*. Edward Elgar Publishing Ltd, Cheltenham, U.K.
- Coleman, J.S. (1988). *Social Capital in the Creation of Human Capital*. The American Journal of Sociology, 94. PP 95-120.
- United Nations Development Programme (1990). *Human Development Report 1990*. Oxford University Press, New York.
- Alkire, S., (2002). *Dimensions of Human Development*. *World Development*, 30(2).
- Nayyar, Deepak (ed.), 2002, *Governing Globalisation and Institutions*. Oxford University Press, New York.

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