

STAT- 202: Basic Statistical Inference

Sampling distribution: concepts and properties, Central limit theorem. Estimation: Point Estimation. Desirable Properties of a Good Estimator, Interval Estimation, Interval Estimation of population mean. Large and small sample confidence intervals for Population Mean

Nature of Hypothesis Testing and Types of errors, Hypothesis Testing for Population Mean and variance

Inferences for Two Population Means, Large-sample inferences for Two Populations using Independent Samples, Inferences for the Mean of Two Normal Populations using Independent Samples (variances are assumed Equal/Not Equal). Inference for Two Populations Mean using Paired Samples

Inferences for Population Proportions, Confidence Intervals and hypothesis testing for Population Proportion, Inferences for Two Populations Proportions using Independent Samples, Estimation of sample size

Pre-Requisite- STAT-102

Recommended Books:

1. Chaudhry, S.M. and Kamal, S. (2008), *"Introduction to Statistical Theory"* Part I, II, 8th ed, Ilmi Kitab Khana, Lahore, Pakistan.
2. Clark, G.M. and Cooke, D. (1998), *"A Basic Course in Statistics"* 4th ed, Arnold, London.
3. Mclave, J.T., Benson P.G. and Snitch, T. (2005) *"Statistics for Business & Economics"* 9th Prentice Hall New Jersey.
4. Spiegel, M.R., Schiller, J.L. and Sirinivasan, R.L. (2000) *"Probability and Statistics"*, 2nd ed. Schaums Outlines Series. McGraw-Hill. NY.
5. Walpole, R.E., Myers, R.H. and Myers, S.L. (2007), *"Probability and Statistics for Engineers and Scientist"* 7th edition, Prentice Hall, NY.
6. Weiss, N.A. (1997), *"Introductory Statistics"* 4th ed. Addison-Wesley Pub. Company, Inc.

BUSINESS COMMUNICATION (AT PAGE NUM 31-32 HEC ROADMAP 2012)

COURSE DESCRIPTION

We all communicate. Communication plays a major role in all human activity. It is part of our culture. Within the business community, public and private organisations, and the professions communication is associated

with the more specific activities of interacting, informing, instructing and persuading. People who possess demonstrable skills in these activities are employed, prized and promoted. If businesses are to survive in an increasingly competitive and information-oriented environment they will need trained.

Communicators, who can speak, write and interact with others efficiently, effectively and professionally.

This course is intended to provide participants with advanced understanding of the concepts and principles of professional business communication and to support the development of their skills in interpersonal, spoken and business related communications through practice and feedback. Course participants will be encouraged to participate actively in the course through their group presentations, reflections and academic writing.

Course Goals

Upon satisfactory completion of the course, students will be able to:

- ☐ Describe the process of communication within business organizations
- ☐ Demonstrate effective listening behaviour
- ☐ Use language and nonverbal communication to communicate effectively
- ☐ Analyzes realistic business situations and selects the communication strategy or strategies Appropriate to bring about the desired outcome
- ☐ Anticipates misunderstandings in business communication and apply effective techniques in An effort to avoid these misunderstandings
- ☐ Apply correct English grammar, spelling, punctuation, mechanics and usage to write clear, Concise and complete letters and memorandums of a minimum of 500 words
- ☐ Compares and contrasts various forms of business correspondence, including positive, Negative, informative and persuasive messages
- ☐ Demonstrate the ability to organize and compose various forms of business correspondence, Including positive, negative, informative and persuasive messages
- ☐ Demonstrate the process of researching, organizing, and composing written reports of a minimum of 750 words
- ☐ Translate the content of written reports into an oral format

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- ☐ Present oral reports effectively, synthesizing information in written and oral form
- ☐ Compare and contrast various forms of resumes, cover letters and other documentation associated with the job search
- ☐ Demonstrate the skills necessary for the job search, including resume writing and interviewing
- ☐ Utilize information technology effectively, selecting and using tools appropriate to the task describe the influence of cultural diversity in the workforce and Demonstrate effective communication skills to accommodate these differences

Indented Learning Outcomes

Upon successful completion of this course, students are expected to have improved their:

1. Level of self-awareness and understanding of how self-awareness influences communication.
2. Analytical ability in relation to business communication.
3. Ability to communicate with others and in particular their conflict resolution and negotiation Skills.
4. Ability to communicate as a member of a team and identify and resolve communication Problems in teams.
5. Understanding of communication patterns in organisations

MARKETING MANAGEMENT (AT page num 66-67 HEC road map 2012)

COURSE DESCRIPTION/OBJECTIVE

Marketing management course is geared toward providing an understanding of the rationale for marketing decisions from a managerial perspective and the manipulation of marketing mix to achieve business goals. Practically marketing management encompasses activities such as demand creation and Stimulation, positioning, product differentiation, and product and brand management among others. All these activities involve planning, analysis, and decision-making.

This course will require the integration of theory and practice. Students will have to make strategic marketing decisions based on analytical techniques they have learned in this course. They will have to devise a marketing plan that is based on a sound conceptual framework, and with a focus on its practical applicability. 67

LEARNING OUTCOMES

At the end of the course the students should be able to:

1. Define and understand the nature and purpose of effective marketing management in the marketplace.
2. Identify and apply the marketing concepts, processes and activities within appropriate types of business environment.
3. Identify and analysis the environmental factors (internal and external) that have implication for marketing management and will affect the marketing decisions.
4. To analyze and seek to identify gaps in the needs and wants of the customer so that appropriate strategy can be proposed to create customer value through competitive advantage.
5. Apply and practice the concepts of marketing in the marketplace within the ethical standards of cultural diversity, religion and mankind

HUMAN RESOURCE MANAGEMENT (at page num 50-51 HEC ROADMAP 2012)

COURSE DESCRIPTION

This course is basically designed to provide students the basic understanding of key HRM functions, which include HR planning, recruitment & selection, compensation, performance evaluation, and training & development. Since human resource provides a competitive advantage that ultimately has a vital role in success and effectiveness of any organization, this course emphasizes on the understanding of the basic concepts of managing human resource and their applications in today's organizations. The course is designed to help the students understand if western human resource management theories and practices have any relevance to the

local settings. The course will also discuss the Islamic perspective of managing human resource. It will shed light on the basic tenets of human resource management given by Qura'n and Sunnah. The students will also be encouraged to compare and contrast the human resource practices suggested in their text books and the practices critical for achieving success from indigenous perspective.

INTENDED LEARNING OUTCOMES

At the end of this course, students should be able to:

1. Demonstrate an in-depth knowledge of the activities and decisions that inform the employment relationship and management including recruitment, selection, training, health and safety, employment laws, motivation, and productivity of employees.
2. Understand the relevance of the HRM theories and practices, developed in Western settings, in indigenous cultures.
3. Develop and design different forms and memos for recruitment, selection, TNA and performance appraisal of employees.
4. Understand the Islamic perspective of managing human resource.
5. Demonstrate and assess leadership in a professional context, by selecting and appraising appropriate styles for situations, and contributing and discussing relevant expertise, liaising with and assessing professional colleagues, and managing and evaluating a supporting team.
6. Identify and discuss ethical implications of situations and decisions, and develop appropriate professional stances.
7. Participate in selection of personnel using psychometric assessment techniques.

8. Conduct internal research on HR-related problems at work, and communicate results effectively to colleagues and peers.
9. Understand the difference between HRM theories, their relevance and application from indigenous context.

ORGANIZATIONAL BEHAVIOUR (page num 78-79 of HEC ROADMAP 2012)

COURSE DESCRIPTION/OBJECTIVE

Organizational behaviour (OB) is an interdisciplinary field drawing from numerous disciplines including psychology, sociology, anthropology, economics, organization theory, statistics, and many others. Effective management of human resources within organizations requires an understanding of various behaviour and processes. Managers need to know why people behave as they do in relation to their jobs, their work groups and their organizations. This knowledge of individuals' perceptions, motivational attitudes and behaviour will enable managers to not only understand themselves better, but also to adopt appropriate managerial policies and leadership styles to increase their effectiveness. 79

The focus of instruction will move progressively through the individual, group and organizational levels of behaviour and will examine the interrelationships of behavioural phenomena among these levels. Additionally, concepts such as motivation, communication and leadership and their relevance to organizational behaviour will be examined in detail. The course is also designed to help the students understand if Western Organizational Behavioural theories and practices have any relevance to the local settings. The course will also discuss the Islamic perspective of understanding and directing human behaviour in a specific direction.

INDENTED LEARNING OUTCOMES

Upon completion of this course, students should be able to:

1. Understand the components of individual behavior and group behaviors in the organizational context.
2. Understand the relevance of the OB theories and practices, emphasized by Western texts, in local settings.
3. Understand the Islamic perspective of understanding and directing human behaviour towards achievement of goals.
4. Understand the causes of job dissatisfaction and stress as well as methods of improving job satisfaction and dealing with stress.
5. Analyze the impact of individuals and team behaviour on organizational productivity
6. Evaluate the impact of organizational structure, design, culture and change
7. Synthesize various theories of motivation and leadership and understand their application to workplace.

INTRODUCTION TO ENVIRONMENTAL SCIENCE 3 (3-0)

Objectives: The objective of this course is to provide orientation on the evolution and scope of this emerging discipline and to motivate them to think beyond basic sciences to decision sciences. After

completing this course, the students are expected to learn the importance of Environmental Science in human life, its relationship with various segments of society and sectors of development. The students are also expected to become familiar with current national, regional and global challenges for sustainable development.

Course Outline:

Introduction to environmental science, its nature, history, scope and the contribution to society. Environmental aspects: Physic-chemical, biological, socio-economic, socio-cultural, moral and ethical thinking.

Environmental problems: local, regional and global level.

Pollution (Air, Soil, Water, Noise, Thermal)

Urbanization, Over population, Resource depletion

Global Warming, Climate change, Ozone layer depletion

Environmental challenges:

Sustainability of resources for development:

Efficiency of energy and water resources, current and future trends in growth and resultant environmental pollution, poverty and resource depletion, development in industry, agriculture and urbanization.