



BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, Pilani
Pilani Campus
AUGS/ AGSR Division

SECOND SEMESTER 2020-2021

Course Handout (Part II)

Date: 17/01/2021

In addition to part-I (General Handout for all courses appended to the time table) this portion gives further specific details regarding the course.

Course No. : **PHA F417**

Course Title : Pharmacoeconomics

Instructor In-Charge: Dr. Murali M Pandey

1. Course description: This course is designed to understand and apply the principles of pharmacoeconomics and pharmacoeconomic research through lectures, readings, class participation, and individual assignments. It identifies the role of pharmacists in pharmacoeconomics research and to appropriately use the vocabulary of pharmacoeconomics.

2. Scope and objective of the course:

The principal objective of this course is to impart knowledge about some economic aspects of the health care and its applications in the health sector, with a focus on pharmaceuticals. It covers cost-benefit, cost-effectiveness, cost-minimization, and cost-utility analyses to compare the different pharmaceutical products, drug therapy and treatments. Economic concepts such as supply, demand, efficiency, equity, health policy, market failures, health insurance, and pharmaceutical market are covered. Measurement of direct and indirect costs to a health care program, economic issues, pharmaceutical regulations, pricing policy and other economic related topics will be emphasized.

3. Text Book:

- 1) Bootman J. L., Townsend R. J., McGhan W. F. Principles of Pharmacoeconomics. Second edition, Harvey Whitney Books Company, Cincinnati, USA, 2002.

4. Reference Books:

- 1) Gold M. R., Siegel J. E., Russell L. B., Weinstein M. C. Cost-Effectiveness in Health and Medicine, Oxford University Press, Oxford, UK, 1996.
- 2) Michael F. D., Sculpher M. J., Torrance G. W., O'Brien B. J., Stoddart G. L. Methods for the Economic Evaluation of Health Care Programmes. Third edition, Oxford University Press, Oxford, UK, 2005.
- 3) Walley T., Haycox A., Boland A. Pharmacoeconomics. Churchill Livingstone, Elsevier Science, Oxford, UK, 2004.

5. Course Plan:



Please Consider Your Environmental Responsibilities
Do Not Print Unless Necessary



BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, Pilani
Pilani Campus
AUGS/ AGSR Division

| Module Number | Learning Objectives | Ref / Text Book Chapter | Learning Outcome |
|--|--|--|---|
| 1. Introduction to pharmacoeconomics | L.1. Historical perspective; Definition and application; L.2. Overview of pharmacoeconomic methodologies; Applications; L.3.Guidelines; Challenges and limitations | TB1-Chapter 1 | Orientation to the background of pharmacoeconomics |
| 2. Pharmacoeconomics: An international perspective | L.4. Potential intervention points; L.5-6. Global status guidelines and health care systems | TB1-Chapter 2; RB-1 Chapter 1 | Overview of the international status of pharmacoeconomics |
| 3. Cost determination and analysis | L. 7. Cost of illness, cost of therapy, L.8-9. Framework for determining costs and pharmacoeconomic applications. | TB-1 Chapter 3 | Understanding of various aspects of cost determination |
| 4. Methods of pharmacoeconomic analysis | L.10. Introduction, measurement of benefit, L.11-13. Steps in conducting cost-benefit analysis (CBA), L.14. Case studies | TB1-Chapter 4 | Complete understanding and applications of CBA |
| | L. 15.Principles of cost effective analysis (CEA), L.16-17. Theoretical foundations for valuing cost in CEA, L.18-19. Framing and designing CEA, case studies | TB-1 Chapter 5; RB-1 various chapters | Knowledge and applications of CEA |
| | L.20. Introduction, health state utility assessment, L.21-22. Concept of utility, methods of assessing utility, L.23-24. Health care interventions, case studies. | TB-1, Chapter 6 | Incorporation of the concept of utility in healthcare systems |
| | L.25. Concept of cost minimization, sources of clinical trial evidence, L.26. Other issues in evaluating equivalence | Class Notes and Slides | Overview of cost-minimization study |
| 5. Health related quality of life (HRQoL)- An overview | L.27-28. Components of health related quality of life measures, L.29-30. General health concepts. | TB-1 Chapter 7 | Building a thorough concept of (HRQoL) |
| 6. Decision Analysis | L. 31-34. Application in pharmacoeconomic study to improve decision making process | TB-1 Chapter 8 | Understanding of the methods used in decision analysis |
| 7. Applications of pharmacoeconomics in various health-care settings | L. 35-36. Clinical research, drug development process, L.37-38. Applications of pharmacoeconomics in clinical trials | TB-1 Chapter 10 | Exposure to the pros and cons of incorporation of PE in CR |
| | L.39-41. Application of research in clinical practice and healthcare settings | TB-1 Chapters 14, 11, 12 & 13 | Applications of PE in other healthcare settings |



Please Consider Your Environmental Responsibilities
Do Not Print Unless Necessary



BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, Pilani
Pilani Campus
AUGS/ AGSR Division

6. Evaluation Scheme:

| Components | Duration | Weightage (%) | Date & Time | Remarks |
|--|------------|---------------|-------------|---------|
| Mid-semester test | 90 min | 30 | | CB |
| Continues assessment (Quizzes /case studies / assignments / presentation) | Continuous | 30 | Continuous | CB/OB |
| Compre Exam | 120 min | 40 | | CB |

7. Mid-Semester Evaluation: Will be announced after the Mid--semester test.

8. Grading Procedure: It is not mandatory to award all the grades (i.e. A to E); subjective judgment will be exercised while awarding the grades. In borderline cases subjective judgment based on regularity and performance in all the components throughout the semester will be exercised to decide the final grade.

9. Make-up: Make-ups are not generally given as a routine. It is solely dependent on the “genuineness” of the circumstances under which a student fails to appear in a scheduled evaluation component; however, prior permission should be sought from the instructor-in-charge.

10. Notices: Pharmacy Notice Board.

11. Any further detail (if required) will be announced in class.

12. Chamber Consultation Hour: To be announced in the class.

Instructor In-Charge
PHA F417



Please Consider Your Environmental Responsibilities
Do Not Print Unless Necessary