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Mehdipatnam, Hyderabad.





CRITERION – III RESEARCH, INNOVATIONS & EXTENSION

3.4 Research Publications & Awards

3.4.1 Code of Ethics for Research

Code of Ethics in Research

Inclusion of Research Ethics in Research Methodology Courses



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Code of Ethics

Research community should observe ethical norms related to the conduct and publication of research particularly in relations to originality, copyright, and the intellectual property rights of third parties. The code of ethics in research terms as perceived by the institution is as follows.

1. Plagiarism

- Researchers who present the words, data, or ideas of others with the implication that they own the same, without attribution in a form appropriate for the medium of presentation, is considered theft of intellectual property and may be guilty of plagiarism and thus of research misconduct. Proper citation/reference must be mentioned.
- Expert reviewers are appointed by the ethics committee constituted to check the plagiarism. The articles to be published in online journal 'AnnQuest' are double blind reviewed so that the identity of authors and reviewers are not revealed to each other to avoid malpractices. The reviewers are also expected to check plagiarism if any in the articles submitted for publication.

2. Use of Data

Prior permission from the Principal must be taken before using any data pertaining to college/ collecting data from faculty or students.

3. Ownership of and Access to Data

A principal investigator who leaves the college is entitled to make a copy of data to take to another institution so as to be able to continue the research, however the institution must be acknowledged.

4. Authorship

Each author or co-author is responsible for the compilation, revision and verification of manuscript, publication or presentation representing his/her contribution. It is unethical to present as one's own the work of others, whether in part or in full, to fabricate research results or to omit or change information. It is inappropriate and unacceptable to submit extracts from research, or reports on the same research, to more than one publisher



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5. Publication Status

A paper should not be listed as submitted, in anticipation of expected submission or as accepted for publication or in press unless the author has received a letter from an editor or publisher stating that publication has been approved.

6. Duplicate Publication

Researchers should not publish the same article in two different places. Duplication of publication without citation is referred to as self-plagiarism.

7. Responsibilities to Funding Agencies

Reporting of results of experiments not yet performed as evidence in support of the proposed research funding, is considered research misconduct. An investigator must submit progress and final research reports to the funding agencies and expenditures should be consistent with the approved budget.

8. Collaborative Research

Faculty who enter into agreements with commercial sponsors of research will be responsible forall aspects of ownership/ reporting of results, financial implications and Intellectual Property Rights.

9. Ethics Committee is appointed to

- 1. Review and approvals of all types of research proposals involving human participants.
- 2. Safe guard the dignity, rights, safety and wellbeing of human participants.
- 3. Follows the principles of research ethics, autonomy, justice in planning conducting and reporting the proposed project.
- 4. Reviews the proposals before the start of project and periodic reviews for monitoring the research throughout the study.
- 5. Looks into preparation of consent forms, risk/benefit ratio.
- 6. Frames guidelines and checks into regulatory requirements and plagiarism.

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Inclusion of Research Ethics in Research Methodology Courses

The college offers a good number of courses in Research Methodology for various programs namely M.Sc Applied Nutrition, PG Diploma in Applied Nutrition, BBA &MBA and one of the Interdisciplinary Courses (IDC).

Though there are no dedicated course on research ethics, it is implied while teaching characteristics of good research, research design & methodology especially related to human and animal subjects of study. However there are two sub topics on ethics and plagiarism in the syllabus of IDC course- Research methodology offered in the final year of under graduate students.

DEPARTMENT OF CHEMISTRY

CHEMISTRY-IDC - RESEARCH METHODOLOGY: Credit: 1

Theory: 30 Lectures

1. Literature Survey:

10 hrs

Print: Sources of information: Primary, secondary, tertiary sources; Journals: Introduction to Chemical Abstracts and others, Subject Index, Substance Index, Author Index, Formula Index, and other Indices with examples. Digital: Web resources, E-journals, Journal access, Citation index, Impact factor, H-index, E-consortium, UGC infonet, E-books, Internet discussion groups and communities, Blogs, Search engines, Scirus, Google Scholar, Wiki- Databases, SciFinder, Scopus. Information Technology and Library Resources: The Internet and World Wide Web.

2. Methods of Scientific Research and Writing Scientific Papers: 10 hrs

Reporting practical and project work. Writing literature surveys and reviews. Organizing a Poster display. Giving oral presentation. Writing scientific papers – justification for scientific contributions, bibliography, description of methods, conclusions, the need for illustration, style, publications of scientific work. Writing ethics. Plagiarism.

3. Data Analysis

5 hrs

The Investigative Approach: Making and Recording Measurements. SI Units and their use. Scientific method and design of experiments. Analysis and Presentation of Data: Descriptive statistics. Choosing and using statistical tests.

4. Report writing

5 hrs



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Department of Nutrition

MSc CLINICAL NUTRITION AND DIETETICS

SEM-II

RESEARCH METHODOLOGY & STATISTICS MNUT 204

Total 60 hours

COURSE OBJECTIVE:

The course Research Methodology and Statistics introduces students to basic concepts employed in quantitative and qualitative research methods using appropriate statistical tests and procedures

At the end of this course, the students will be able to

- CO 1: Acquire knowledge in the overall process of designing a research study.
- CO 2: Describe methods of data collection, identify suitable sampling techniques, recognize different scales of measurement and illustrate the data appropriately.
- CO 3: Compute relevant descriptive statistics to the given data.
- CO4: Predict using regression analysis and choose appropriate tests of significance to draw inferences about the population.

UNIT-I 20 hours

- **Methods of Research**
 - Definition of research, characteristics of research, criteria of a good research
 - Merits and demerits of a scientific research
 - Types of research: Historical research, Ex-post facto research, Laboratory experiments, Field experiments, Survey research, Evaluative research, Case study research, Operational research, Participatory research.
 - Research strategies in the field of food and nutrition
 - a) Descriptive studies (correlation, case studies, cross sectional surveys)
 - b) Analytical studies (observational, case -control, cohort studies: prospective and retrospective)
 - c) Experimental studies (clinical or intervention trials including randomized controlled trials)
 - Steps in conducting research
 - Hypothesis: Definition, Purpose, Types



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- Reporting: Methods of reporting, Technical reports
- Research Abstract: Definition, guidelines for writing abstract
- Thesis: Definition, parts, steps in writing thesis

UNIT II 10 hours

Sampling Design and Types of Sampling

- Sampling Aim, Definition and Characteristics of a good sample
- Sampling- Basis, benefits and Limitations
- Survey Meaning, Advantages, Disadvantages, Types and Quality
- Census and sample survey
- Steps in sampling design
- Types of sampling: Random Sampling Simple random sampling, Stratified random sampling, Systematic sampling and Cluster sampling
- Non random sampling methods Judgment sampling, Convenience sampling, Quota sampling, Volunteer sampling and Snowball sampling
- Sampling and Non sampling errors
- Sample size and its determination
- Sampling distribution and Importance

UNIT III 12 hours

Methods of data collection and data compilation

- Types of Data- Primary Data and Secondary Data, Advantages and Disadvantages, Difference between Primary Data and Secondary Data
- Methods of collecting primary data: Questionnaire (drafting), Interview (training of interviewers), Schedule, Observation, Inventories, Checklist.
- Ranking and Rating Scales
- Criteria for evaluation of instruments reliability and validity
- Classification of data: types of classification- Geographical, Chronological, Qualitative and Quantitative
- Tabulation of data: parts of a table, general rules of tabulation, types of tables
- Diagrammatic representation of data
- Graphic representation of data

UNIT IV 18 hours

Statistical methods

- Measures of central tendency: mean, median and mode, their relative advantages and disadvantages
- Measures of dispersion: Mean deviation, standard deviation
- Coefficient of variation, percentile
- Types of correlation, coefficient of correlation and its interpretation, Rank correlation
- Regression equations and predictions
- Analysis of variance



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- Contingency tables, Chi-square test
- 't' test : Student's 't' test, Paired 't' test, Unpaired 't' test
- 'F' test

BOOKS RECOMMENDED

- Statistical Methods SP Gupta, Sultan Chand and Sons Publishers, New Delhi. Research Methodology methods and techniques CR Kothari, Wiley Eastern Limited, Madras.
- Resesarch Methodology (Concepts, Methods, Techniques and SPSS)-Dr.Priri R. Majhi, Dr.Prafull K. Khatua, II Edition, Himalaya Publishing House, Pvt. Ltd. 2015.
- 3.A Handbook of Methodology of Research Dr.Rajammal P Devadas and Dr. K Kulandaveil, Sri Ramakrishna Mission, Coimbatore.
- Research Methods in Social Science BH V Sharma, D Ravindra Prasad, P. Satyanarayana, Sterling Publications.
- Biostatistics SundaraRao., 7th edition, Jaypee Brothers medical Publishers.
- Methods in Biostatistics-B.K. Mahajan, 2010.
- Manual of Biostatistics- JP Baride, AP Kulkarni, RD Mazumdar, Jaypee Publishers
- Methodology of research in Social science O.R. Krishnaswami and M. Ranganatham, 2nd revised edition. Himalaya Publishing house 1td, 2015.

PG DIPLOMA NUTRITION AND DIETETICS

SEMESTER-II

<u>PAPER – V PUBLIC HEALTH AND EPIDEMIOLOGY</u> - DNUT 201

Total hours: 60

Course Outcomes

After successful completion of the course students will be able to

- CO 1: **Explain** the broader causes of health and illness and utilise a variety of techniques to assess people's nutritional condition both individually and collectively.
- CO 2: **Describe** and choose most appropriate tools of health promotion and nutrition education in a community.
- CO 3: **Facilitate** Integrated health care services for prevention, promotion, treatment and rehabilitation through Health education/communication.
- CO 4: **Improve** research skills and explain the applications of epidemiology in understanding the control of communicable Disease.



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UNIT I 16 hours

Chapter 1: Public Health & Community Nutrition

Factors effecting health of community- environmental, social, cultural, dietary, organizational, economic & political. Indicators of health, Vulnerable Groups/Needs of special populations...

Chapter 2: Assessment Of Nutritional Status

Assessment of nutritional status in Individuals and populations- use of various methods. Sources of Health information, Vital stastites, Primary Health Care- Prevention and Treatment in urban slums and villages

UNIT II 14 hours

Chapter 3: Communicable Diseases & Control

Infectious disease epidemiology- definition- communicable disease ,infection, Contamination , Disinfection. Mode of transmission: Direct and Indirect. Disease Cycle.

Communicable Diseases - Swine Flu/H1N1, hepatitis-A,B, Tuberculosis, Typhoid,

Gastroenteritis, HIV/AIDS

Vector Borne: Malaria, Dengue

Chapter- 4: Health information

Integrated health care delivery-Preventive, promotive, curative & rehabilitative Society & Health - socio-psychological barriers (Social taboos/ blind faiths/ believes/ myths that affect health) Health education/communication- Principles & Practice, Approach, Models, Content.

UNIT III 14 hours

Chapter 5: Water & water purification

Sources of water, impurities of water, Testing of water quality, potable water. Purification of water-Home scale & commercial methods, Deflouridation, Chlorination, Flourosis

Chapter 6: Hospital/Food Waste Management

Hospital waste management: definition, types, sources, health hazards, groups at risk, methods of disposal & treatment.

Various Methods of managing food waste-Landfill, Composting, Incineration.



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UNIT IV 16 hours

Chapter 7: Maternal and child health care

Maternal and child health care, Health needs and priorities for women and children, nutrition & health programs for mother & child-NIDDCP-National iodine deficiency disorder control Anaemia prophlaxis programme, Vit-A prophlaxis programme, ICDS. Adolescent health - Adolescent pregnancy, Geriatric health care.

Chapter 8: Epidemiology & Research Methodology

Introduction to Epidemiology- Definition, Uses of Epidemiology, Epidemiological methods: Descriptive, analytical, observational, experimental Epidemiology, Definition of research,, Sampling- Definition, Characteristics of good sample Steps in conducting research-Hypothesis: Definition, purpose, types Reporting: Methods of reporting, Technical reports

Research Abstract: Definition, guidelines for writing abstract

Thesis: Definition, parts, steps in writing thesis

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