MAHATMA GANDHI CENTRAL UNIVERSITY, MOTIHARI, BIHAR

(Established by an Act of Parliament)

SYLLABUS

DOCTOR OF PHILOSOPHY (Ph.D)

(1st and 2nd SEMESTER)

Offered by

DEPARTMENT OF MANAGEMENT SCIENCES

MAHATMA GANDHI CENTRAL UNIVERSITY, MOTIHARI, BIHAR

Doctor of Philosophy (Ph.D)
Department of Management Sciences
Mahatma Gandhi Central University, Motihari, Bihar

Course Structure and Scheme of Examination

I. Course Work

1. Candidates admitted to the Ph.D programme in the Department of Management Sciences shall be required to pass a "course work" of minimum 16 credits.
2. The candidate can appear in pre-submission seminar only after successfully clearing Ph.D course work examination.
3. Students of Ph.D programme shall be examined in the following courses in accordance with the syllabi (course) prescribed.

1. Department Specific Course (Common for all Ph.D Scholars)

Ser. No.	Course	Credit	Semester
1.	PHDMG-5001 Conceptual Advances in Research Area	04	I
2.	PHDMG-5002 Research Methodology	04	I
3.	PHDMG-5003 Literature Review	04	II
4.	PHDMG-5004 Statistics for Research	04	II
Total		**16**	

II. Mode of Conduct of the Course:

1. Course Duration : Two Semesters
2. Credit (minimum) requirement for Ph.D course work : 16 credits

III. End Semester Examination and Evaluation (100 Marks)

1. The question papers for the courses (PHDMG-5002 & PHDMG-5004) shall ordinarily be set and evaluated by a teacher or group of teachers, appointed by the board of examiners.
2. A candidate shall have to register for a course work at the beginning of the semester. A candidate shall not be allowed to join the coursework in middle of the semester.
3. Examination, (each semester) shall be held at the end of the semester. Each student shall be required to fill up the examination form within the stipulated time period notified by the controller of examination, MGCUB. A full time Ph.D scholar shall be eligible for appearing in the examination, only if he/she fulfils the minimum attendance criteria as per university rules and filling of examination form within the stipulated time.
4. A candidate, who does not fulfil the above requirement, shall not be allowed to appear in the concerned examination.
5. Based on performance of the candidate in the examination, the candidate shall be declared pass or fail. A candidate shall be declared pass in a coursework if he/she secures at least 50 marks in the coursework.
6. The candidate shall be considered to have passed the course work of the Ph.D programme only when he/she has passed all the papers of course work examination.
7. A candidate shall have to clear the course work examination before the pre-submission seminar presentation. A candidate can take maximum two attempts for passing a coursework examination. If he/she does not pass within the specified period his/her Ph.D registration shall stand cancelled. There shall be no provision of supplementary examination.

8. For paper code   PHDMG-5001 & PHDMG-5003, a Ph.D scholar shall be required to appear with a written report and shall have to make presentation before the designated Research Progress Committee (RPC) of the candidate.

IV. Declaration of Result:

If a candidate has obtained 50% or more marks in each paper of the course work, shall be declared passed in the coursework. A certificate to this effect shall be issued by the controller of examinations.

IV. Admit Card (for End Semester Examination)

A candidate may not be admitted into examination room unless he/she produces his/her admit card to the officer conducting the examination or satisfies such officer that it shall be subsequently produced.

The Controller of Examinations may grant duplicate admit card if satisfied, that an examinee's admit card has been lost or destroyed, on payment of a further fee of Rs. 10/.

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www.mgcub.ac.in

Course Code - PHDMG-5001

Course Name - Conceptual Advances in Research Area

Credits Equivalent - 4 Credits

Course Objective:

The objective of the course is to make the research scholar aware of the latest advancements in the chosen area of research and accordingly conduct the same for his/her research work under the mentoring of his/her Research Progress Committee (RPC).

Conduct of the Course:

Being experimental in nature, a candidate needs to continuously work to grasp the advances in chosen research area through all possible media sources and discussions with experts from academia & industry. To formalize the learning process a candidate shall devote four contact hours of study per week under the supervision of RPC, which will turn out to be 40 hours of study equivalent to 4 credits.

Evaluation of the Course:

At the end of the semester, the research scholar shall submit a written report on the conceptual foundation in the chosen area of the study.

The scholar is supposed to make a presentation before the Research Progress Committee (RPC). Report and Presentation shall be evaluated separately by each member of RPC. The total marks for evaluation of the course shall be 100 (50 each for presentation and report). The average value of marks given by the committee shall be awarded.

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Course Code - PHDMG-5002

Course Name – Research Methodology

Credits Equivalent - 4 Credits

Course Objective:

The purpose of the course is to enable the students understanding for the fundamentals of research methodology and its use in their research endeavour.

Conduct of the Course:

Class room interaction shall be held with designated teacher(s) 4 hours per week.

Evaluation of the Course:

End semester theoretical examination shall be conducted of 100 marks as per the ordinance of the University.

Unit 1:
Defining research: Classification of research, Business Research Process, Review of Literature, Defining Research Problem, Process of defining Research Problem and Hypothesis formulation.

Unit 2:
Research Design Formulation: Definition and classification of research design, exploratory research, descriptive research and causal research.

Unit 3:
Measurement and Scaling: Fundamentals of comparative scaling, Primary scales of measurement, non-comparative scaling.

Unit 4:
Questionnaire Design and Data Collection: Questionnaire design process, individual question content, choosing questionnaire structure, questionnaire wording, Pretesting questionnaire, Validity & Reliability of questionnaire, Techniques of data collection (Quantitative and Qualitative).

Unit 5:
Sampling Design and Report Writing: Census and sample, sampling design process, classification of sampling techniques, probability and non-probability sampling techniques, Research report components, writing the research report, Presentation of Statistics.

Suggested Reading:
1. Naresh K. Malhotra: Marketing Research, an Applied Orientation, Pearson education.
2. Cooper DR and Sehindler, PS: Business Research Methods 9e. Tata McGraw Hill.
3. Hanke JE and Wichem DW: Business forecasting 6e Pearson Education.
4. Hair, Anderson, Tatham and Black: Multivariate Data Analysis, 5e, Pearson Education.

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Course Code - PHDMG-5003

Course Name – Literature Review

Credits Equivalent - 4 Credits

Course Objective:

The objective of the course is to enable the research scholar to acquaint with the methods of literature review and accordingly conduct the same for his/her research work under the mentoring of his/her research progress committee.

Conduct of the Course:

Considering the application orientation of the course, there shall be four contact hours per week to attend library and to access online resources under the supervision of RPC members. In totality, a candidate needs to devote 40 contact hours to earn 4 credits of the course.

Evaluation of the Course:

At the end of the semester, the Ph.D scholar shall submit a written report on the conceptual foundation in the chosen area of the study.

The scholar is supposed to make a presentation before the Research Progress Committee (RPC). Report and Presentation shall be evaluated separately by each member of RPC. The total marks for evaluation of the course shall be 100 (50 each for presentation and report). The average value of marks given by the committee shall be awarded.

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Course Code - PHDMG-5004

Course Name – Statistics for Research

Credits Equivalent - 4 Credits

Course Objective:

The purpose of the course is to facilitate students with basic understanding of descriptive and inferential statistics.

Conduct of the Course:

Class room/Laboratory interaction shall be held with designated teacher(s) 4 hours per week.

Evaluation of the Course:

End semester theoretical examination shall be conducted of 100 marks as per the ordinance of the University.

Unit 1:
Introduction of Descriptive Statistics: Measures of Central Tendency, Measures of Dispersion, Range, Quartile Deviation, Mean Deviation & Standard Deviation, Skewness & Kurtosis, Basic concepts of Probability and Expected Value.

Unit 2:
Theoretical Distributions: Binomial Distributions, The Standard Normal Distribution and Poisson Distribution, The Central Limit Theorem.

Unit 3:
Testing of Hypothesis: Test of significance, t-test, z-test, large sample & small sample, Simple Linear Regression, Inferences related to Regression, Correlation Analysis.

Unit 4:
Nonparametric Statistics: Chi-Square Distributions, Wilcoxon rank-sum test and Mann-Whitney test, Kruskal-Wallis test, Rank Correlation, Goodness of Fit tests.

Unit 5:
The Analysis of Variance (ANOVA), Combining Regression with ANOVA, One-Way, Two Way ANOVA, Latin Square Design, Forecasting and Application of statistical packages for social science research.

Suggested Reading:
1. Anderson, Sweeney and Williams: Statistics for Business and Economics, 9e, Cenage Learning.
2. Sharma JK: Business Statistics. 2e Pearson Education
3. Gupta SP: Statistical Methods. Sultan Chand & Sons.
4. Levin R. I and D.S. Rubin: Statistics for management, 6e, Prentice Hall.