



MODY
UNIVERSITY
OF SCIENCE AND TECHNOLOGY
LAKSHMANGARH • RAJASTHAN

A Leading Women's University



ABET
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BEST WOMEN'S UNIVERSITY IN ASIA-PACIFIC

-ASSOCHAM, THE EDUCATION POST & KNOWLEDGE CHAMBER OF COMMERCE AND INDUSTRY-2020

ADMISSIONS OPEN 2020-21

INFORMATION BROCHURE

For PhD Program Session 2020-21



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Website: <http://www.modyuniversity.ac.in>

I. IMPORTANT GUIDELINES FOR PhD APPLICATION

- Please read the instructions given in this information Brochure carefully before filling up the online application form.
- Online Application Form & Information Brochure (including the admission schedule along with the important dates) are available on the University website: www.modyuniversity.ac.in
- Online Application fee: (1000) + Transaction Charges, as Applicable.
- PhD program shall be for a minimum duration of three years, including course work and a maximum of five years.
- You should check the admission website for important announcements.

II. IMPORTANT DATES FOR PhD ADMISSION (SESSION JULY 2020-21)

S. No.	Activity	Date
1	Last date for on-line Submission of Application Forms & Requisite Fee (online at www.modyuniversity.ac.in) Apply Online : http://mody.servergi.com:8088/olamody/Student/Welcome	20 September, 2020
2	Date of Entrance Examination and Interview	26 September, 2020
3	Declaration of Results	30 September, 2020
4	Reporting, Registration & Fee Submission of Selected Students into Respective Schools	07 October, 2020



1. THE INSTITUTE

Mody University of Science and Technology is a state private University with the objective of encouraging and motivating the women population and to avail quality education with world-class infrastructure and facilities in an IT-savvy environment. It provides the students with ample opportunities to study the courses of their choice . They have the freedom to choose from numerous Undergraduate and Postgraduate programs from different disciplines like Arts, Science, Commerce, Engineering, Management, Law, Fashion, Interior Design, Architecture, and Physiotherapy.

Apart from imparting qualitative education, we are sincerely committed to upgrade the level of women intellectuals and inculcate spiritual thoughts in them. The University has modern high tech laboratories, an enriched library that houses international journals and authentic e-resources from the various countries of the world and smart class rooms for the teachers to innovate and experiment with new pedagogies.

Mody University also promotes cutting edge research and research publications of high quality. We believe that this is the key to our recognition in the international research community. The academic and research contributions of the faculty members have been recognized across the globe in the form of paper -publications, projects, fellowships and awards. Mody University has received research funding over 1.5 Cr INR from DST, DBT and SERB India. Over last last five years, Mody University has published more than 200 research papers and articles in the journals of national and international repute.



2.WHY PhD AT MODY UNIVERSITY

a) DST/DBT/BRNS/ISRO Funded Projects

The Research Scholars enrolled in PhD get an opportunity to work under various funded projects; the details of the funded projects are as below:

- Synbiotic Formulations of Pearl Millet and Camel Milk using Potent Combinations of LAB Isolated from Minor Cereals, Seeds, and Milk, sponsored by BIRAC (Biotechnology Industry Research Assistance Council), New Delhi
- Resistance to Cucumber Mosaic Virus Infection using Intracellular Antibody Capture Technology, sponsored by SERB (Science and Engineering Research Board), New Delhi
- Prevalence and Mitigation of Fluoride Toxicity, sponsored by DST (Department of Science and Technology) New Delhi
- Design and Application of Two Novel Degenerate Primers for Identification and Complete Characterization of Potyviruses, sponsored by DBT (Department of Biotechnology), New Delhi
- Control and Prevention of Fluorosis, sponsored by DST, New Delhi
- Study of Phthalocyanine Polyaniline Composite Thin Films for use as Suitable Materials in Solar Cells, sponsored by DST, New Delhi
- Rheological Stabilization and Characterization of Ceramic Suspensions sponsored by DST, New Delhi
- Design and Synthesis of Nanoparticle-Liposomal Smart Hybrids for Targeted and Controlled Release of Drugs, sponsored by BRNS (Board of Research in Nuclear Science), Mumbai
- Synthesis and Characterization of Magnetic Nanoparticle-Based Tracers for Oil Recovery, sponsored by DST, New Delhi
- Design and Simulation of a New Energy Efficient ML-MAC Wireless Sensor Protocol, sponsored by ISRO (Indian Space Research Organization), Bengaluru
- RNAi Mediated Gene Silencing against Begomovirus, sponsored by DBT, New Delhi
- A Coordinate Approach to Develop Transgenic Plant against Cotton Leaf Curl Virus, sponsored by DBT, New Delhi
- PGPR-elicited ISR and IST against Biotic and Abiotic Stresses in Soybean (*Glycine max* L. Merrill), sponsored by DBT, New Delhi
- Development of Non-transgenic Strategies to Control Potyvirus Diseases, sponsored by DST, New Delhi
- Use of Cerium Iron Oxide Nanoparticles in Photocatalytic, sponsored by DST, Rajasthan

b) Travel Grant and Visiting Fellowship

- INSA (Indian National Science Academy), New Delhi to attend International Conference at Korea
- INSA and DBT, New Delhi to attend International Conference at Cuba
- DST, New Delhi to attend International Conference at USA
- Khon Kaen, Thailand awarded International Visiting Scholarship for the Joint Research
- DST, New Delhi provided funds to develop Nano science lab

c) Our Collaboration with Foreign Universities/Research Institutions

- Florida International University, Florida
- University of Missouri, Columbia
- Stony Brook University, New York
- University of Colorado, Denver
- Purdue University, USA
- Carleton University, Canada
- University of North Texas, Texas
- Del Rosario University, Columbia
- IMT Atlantique, France
- N+I Institutions, France and many more

d) Well Equipped Research Laboratories

- Artificial Intelligence (AI) Laboratory
- IBM Software Centre of Excellence
- Network Laboratory
- Microprocessor & Microcontroller Laboratory
- Fluid Mechanics and Fluid Machineries Laboratory
- Nano-Simulation Laboratory
- Advance Physics Laboratory
- Chemistry Research Laboratory
- Molecular Biology and Instrumentation Laboratory
- Microbial Testing Laboratory
- Dietetics and Nutrition Laboratory
- Question Document and Finger Print Laboratory
- English Language Laboratory
- Robotics and 3D Printing Laboratory
- Data Analytics Laboratory
- Database Design & Development Laboratory
- Microwave & Antenna Laboratory
- Thermodynamics Laboratory
- Nanomaterials Characterization Laboratory
- Optics Laboratory
- Water Technology Laboratory
- Life Science Laboratory
- Biotechnology Laboratory
- Forensic Biology and Serology Laboratory
- Forensic Toxicology & Chemistry Laboratory

e) Our Accreditations and Professional Affiliation

- Accreditation Board of Engineering and Technology (ABET), USA
- Institutions of Engineering and Technology (IET), UK
- IEEE, USA
- IETE, India
- DELNET
- Society of Women Engineers (SWE)
- Computer Society of India (CSI)
- Indian Society for Technical Education (ISTE)
- Association of Indian Management Schools (AIMS)
- ENACTUS

f) Our Ranking and International Recognition

- Best Women's University in Asia-Pacific in 2020 & 2019 by ASSOCHAM INDIA & THE EDUCATION POST
- MU Ranked 4th Best Private Universities by IIRF in 2019
- Most Innovative University Campus of India by ABP News in 2018
- MU ranked 22nd among private general Universities by India Today MDRA in 2019
- Outstanding University in Rajasthan by CEGR, 2019
- The Best Education Brand by Economic Times in 2017
- Best Women's University of the Year: College2campus; National Education Excellence Award 2017

3. STUDENT'S AMENITIES

Interactive classrooms

- Highly Qualified and Experienced faculty members.
- Well-equipped state-of-art laboratories and resourceful library.
- Well-furnished hostels.
- Sports grounds to encourage sportsmanship among the girls.
- Proper medical amenities with two ambulances available 24X7 throughout the year.
- An eco-friendly environment with specific types of flora and fauna.
- Wastage of water is avoided using Sewage Treatment Plant that recycles water to be used further for horticulture.
- Tapovan: A lotus shaped temple to help the students and to attain peace of mind, tranquillity and harmony.
- Shilalekhas adorn the campus and the Sanskrit Shlokas provides invaluable insights into mental and spiritual life.



4. PhD RESEARCH AREAS

Applications are invited for PhD Program in different disciplines by various school of the University

SCHOOL OF ENGINEERING (SET)		
S.No.	Subject Areas for PhD Program	Research Targeted Areas
1	Computer Science and Engineering	1. Computational Epidemiology
		2. AI and Machine Learning
		3. Data Mining
		4. Data Analytics & IoT
		5. Cloud Computing
		6. High Performance Computing
		7. Networks, Distributed Systems, and Security
		8. Software Engineering and Programming Languages
2	Nuclear Science Technology and Mechanical Engineering	1. Thermal Engineering
		2. Fluid Engineering
		3. Material Engineering
3	Electronics and Communication Engineering and Biomedical Engineering	1. Microwave Devices
		2. Millimetre wave propagation
		3. Antenna and wave propagation
		4. Semiconductor device modelling
		5. Health care devices
		6. Signal and Image Processing
		7. Artificial Organs
		8. Bioinformatics
		9. Bio-materials and Tissue Engg.
		10. Wireless Sensor Networks
		11. VLSI Design
4	Electrical Engineering	1. Smart Grids
		2. Renewable Energy
		3. Power Electronics Drive
		4. Power Systems
		5. Electric Vehicles
		6. Ultra-Capacitor
		7. Control and Automation

Applications are invited for PhD Program in various disciplines

SCHOOL OF LIBERAL ARTS AND SCIENCES (SLAS)		
S.No.	Subject Areas for PhD Program	Research Targeted Areas
5	Biosciences	1. Plant-Microbe Interactions
		2. Animal Toxicology
		3. Microbial Ecology
		4. Bio-Pesticide Formulations
		5. Food and Nutrition
		6. Biocatalysis and Biotransformation
6	Chemistry	1. Organic Synthesis
		2. Nano-catalysis
		3. Magnetic Nanomaterials
		4. Green Chemistry
		5. Coordination Chemistry
7	Physics	1. Dielectrics
		2. Low-Dimension Physics
		3. Material Science
		4. Optoelectronics
		5. Photonics
		6. Plasmonics
8	Mathematics	1. Graph Theory
		2. Operation Research
		3. Number and Fractional Theory
		4. Fluid Dynamics and PDE
		5. Algebra and Analysis
9	Forensic Science	1. Forensic Biology
		2. Wildlife Forensics
10	Liberal Arts	1. English
		2. Psychology
		3. French
		4. Sociology
		5. Geography
		6. Political Science
		7. Sanskrit

Applications are invited for PhD Program in various disciplines

SCHOOL OF BUSINESS (SOB)		
S.No.	Subject Areas for PhD Program	Research Targeted Areas
11	Commerce, Economics, and Management	<ol style="list-style-type: none"> 1. Women Leadership 2. Banking and Financial Services 3. Finance, Accounts and Taxation 4. Macroeconomic Policy, Economic Development 5. Business Economics 6. Sustainability 7. Environment Pollution 8. Social Sector Management 9. Human Resource Management 10. Tourism Management 11. Women Entrepreneurship 12. Organization Behaviour 13. Consumer Behaviour, Retail and related areas in Marketing 14. Communications

SCHOOL OF LAW (SOL)		
S.No.	Subject Areas for PhD Program	Research Targeted Areas
12	Law	<ol style="list-style-type: none"> 1. Constitutional Spirit and Morality 2. Cyber Crime 3. Intellectual Property Rights 4. Environmental Sustainability 5. Crime Against Humanity and Human Dignity 6. Criminality Against Women 7. Organized Crimes Including White Collar Crimes

SCHOOL OF DESIGN (SOD)		
S.No.	Subject Areas for PhD Program	Research Targeted Areas
13	Design	<ol style="list-style-type: none"> 1. Fashion Design 2. Fashion Management 3. Textile Sciences

5. PHD APPLICATION CATEGORIES

The Institute admits PhD candidates under the following categories:

FULL-TIME RESEARCH SCHOLAR

- (i) Teaching Assistantship (TA)
- (ii) Teaching Assistantship through Project (TAP)
- (iii) Sponsored Candidates (SC)
- (iv) Self-Financed including those on Study Leave (SF)
- (v) Self-Financed Foreign Nationals (FRN-SF)
- (vi) Foreign Nationals with Teaching Assistantship (FRN-TA)

PART-TIME RESEARCH SCHOLAR

- (i) Institute Staff (IS)
- (ii) Project Staff (PS)
- (iii) Research Assistantship (RA)
- (iv) Research Assistantship through Project (RAP)
- (v) External candidates sponsored by recognized R & D organizations (EX)
- (vi) Teachers working in Colleges / Educational Institutes (CT)

6. ELIGIBILITY FOR PhD PROGRAM

6.1. Eligibility for Full Time PhD Program

A candidate shall be eligible for admission to the PhD program, if she/he possesses:

- 6.1.1 A Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent CGPA 6.00 (or an equivalent grade in a point scale wherever grading system is followed), or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country, or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.
- 6.1.2 A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for the candidates belonging to SC/ST/OBC (non-creamy layer)/Differently-abled and other categories of candidates as per the decision of the University Grants Commission from time to time, or for those who had obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever the grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible only on the basis of the qualifying marks without including the grace mark procedures.
- 6.1.3 The cases of candidates who have passed an examination outside the Indian Universities system and those who may not have obtained a Master's degree may be considered for admission to the Program subject to the condition that each case shall be examined on its own merit by the Admissions Committee and in accordance with the recommendations of the Equivalence Committee.

6.2. Eligibility for Part-Time PhD

- 6.2.1. The Applicant should possess the Minimum Entry Qualifications for the degree;
- 6.2.2. The Applicant proves that his/her official duties permit him/her to devote sufficient time to research;
- 6.2.3. Necessary facilities for pursuing research are available at the Applicant's work place recognized for the chosen field of research and
- 6.2.4. The Applicant would reside in Lakshmanagarh for a period of not less than 6 months during his/her registration for the PhD Program. This condition of minimum residence period stands automatically waived for Research Scholars who are working in MUST or in recognized Organizations/ Institutions located near the Institute.

7. ADMISSION PROCEDURE

University admits candidates by a two stage process through Entrance Test and Interview

7.1. Entrance Test Details:

- Date and time of Entrance Test : 22 August, 2020 (10:00 am to 12:00 pm)
- Date and Time of Interview : 22 August, 2020, (2:30 pm to 5:30 pm)
- Test Center: Mody University Campus, Lakshmanagarh, Sikar, Rajasthan
- Time of Reporting: 9:00 AM with valid Photo ID (Any of these: PAN Card, Driving License or Aadhar Card)
- GPAT/JRF/GATE/NET/SLET/MPhil qualified candidates are exempted from written test. However, they will have to appear for interview.
- The eligibility of GPAT/JRF/GATE/NET/SLET Certificate will be decided as per the guidelines issued by awarding agency.
- Answers of the MCQs shall be marked by using black ink ball point pen only.
- Language of question paper will be in English only.

The Entrance Test shall be a single paper having 50 Multiple Choice Questions (MCQs) (50 Marks) and duration of test shall be 90 Minutes. The candidates shall be required to answer all questions. There will be no negative marking for wrong answers. The Entrance Test shall be divided in two parts.

- Part 'A' Research Methodology: Shall consist of 25 MCQs each carrying one mark. The questions which will be of general in nature, intended to assess the research aptitude, reasoning ability, comprehension, divergent thinking and general aptitude of the candidates.
- Part 'B' Subject Specific: This part shall contain 25 subjects specific MCQs based on Master degree level syllabus and are designed to test a candidate's knowledge of subject in which he/she has applied for admission in PhD Program.

7.2. Interview:

All PhD candidates are required to bring Power Point Presentation (12- 15 slides) of their research interest area. The interview / viva-voce shall also consider the following aspects, viz. whether:

- a) The candidate possesses the competence for carrying out the proposed research;
- b) The research work can be suitably undertaken at the University;
- c) The proposed area of research can contribute to new/additional knowledge.

8. FEE STRUCTURE

	SET	SLAS/SOL/SOB/SOD
One Time Payment at the time of Admission		
Admission Fees	10,000	10,000

One Time Payment at the time of Admission (Refundable on leaving the Institute)

Caution Money	10,000	10,000
Hostel Security (Boarders only)	20,000	20,000

Yearly Payment (in two equal instalments; first at the time of admission and second by November 15, 2020)

Tuition Fees	80,000	75,000
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Accountable payments

Personal charges (Boarders)	10,000	10,000
Personal charges (Day Scholars)	4,000	4,000

** One-time Examination Fee of Rs. 45000 at the time of Submission of thesis for PhD

Note: Boarding and Lodging Charges (Per Year)-Boarders Only

2 Seater AC Room – Rs. 1,75,000/-

2 Seater Non-AC Room – Rs. 1,45,000/-



ANNEXURE 1

Syllabus for PhD Entrance Examination

1. Research Methodology

Unit I

Introduction of Research, Nature and purpose of scientific enquiry, Parameters of research, Problem Definition, Definition of construct and variables, Research Process, Steps in Research Process.

Unit II

Research Design, Concepts and Type of research design, Design of research on the basis of application—pure and applied, Design of research on the basis of Techniques/Methodology -Exploratory and, Descriptive, Descriptive Research – Qualitative and Quantitative, Quantitative – Field studies, Field experiments and laboratory experiments, Design of research on the basis of research area, research in Social sciences and, Physical sciences,

Unit III

Measures of Central Tendency: Mean, Median and Mode

Unit IV

Reading Comprehension Meaning of individual words and sentences Meaning of paragraphs and larger bodies of text Drawing conclusions from the information provided, reasoning from incomplete data to infer missing information

Unit V

Reasoning- Mathematical, Logical and Analytical
Number Series; Letter Series; Codes, Relationships, Verbal Analogies; Word Analogy – Applied Analogy, Verbal Classification, and Reasoning. Logical Diagrams: Simple Diagrammatic Relationship, Multi-Diagrammatic Relationship, Analytical Reasoning

2. Syllabus for Specific Subjects

Masters (PG) Degree syllabus of their respective subjects



SCHOOL OF ENGINEERING AND TECHNOLOGY



SCHOOL OF ARCHITECTURE



SCHOOL OF LAW



SCHOOL OF DESIGN



SCHOOL OF BUSINESS



SCHOOL OF ETIQUETTE AND FINISHING SKILLS



SCHOOL OF LIBERAL ARTS & SCIENCES

