

GURU JAMBHESHWAR UNIVERSITY OF SC. & TECHNOLOGY, HISAR  
(Established by State Legislature Act 17 of 1995)  
A<sup>+</sup> Grade NAAC Accredited University

**Internal Quality Assurance Cell**

A copy of the duly revised and approved '*University Teaching and Research Promotion Policy*' of GJUS&T, Hisar is forwarded to the followings for kind information / Circulation among quarter concerned, please.

**Endst No.561-565**

**Dt. 18.06.2024**



Director, IQAC

**CC:**

1. Dean, Research and Development.
2. Dean Academic Affairs
3. **A.R. Faculty with the request to circulate it among all quarter concerned.**
4. OSD to Vice Chancellor for kind information of the Vice Chancellor.
5. PS to Registrar for kind information of the Registrar.

**Guru Jambheshwar University of Science & Technology, Hisar**  
**UNIVERSITY TEACHING POLICY**

**"Education is the manifestation of perfection already in man" – (Swami Vivekananda)**

**1. INTRODUCTION:** Guru Jambheshwar University of Science & Technology, Hisar is a State University established on October 20, 1995 by an Act of the Legislature of the State of Haryana to facilitate and promote studies and research in emerging areas of higher education with a focus on new frontiers of technology, pharmacy, environmental studies, non-conventional sources energy and management studies and also to achieve excellence in these and connected fields. Guru Jambheshwar University of Science and Technology is an institution with a difference in terms of state-of-the-art infrastructure and good governance to serve societal needs by encouraging, generating and promoting excellence in teaching, research and extension activities. The University provides every teacher with a general overview of common elements of the university teaching policy:

- 1.1. Mission and Vision:** The University articulates its mission and vision statements, outlining its commitment to teaching, research and community service.
- 1.2. Curriculum Design:** The policy addresses how the university designs its academic programs and courses, including the development of a balanced and relevant curriculum.
- 1.3. Pedagogical Approaches:** The University outlines its preferred teaching methods, including lectures, seminars, labs, and experiential learning. The policy might encourage innovative and student-centric approaches.
- 1.4. Assessment and Evaluation:** The policy describes the methods of student assessment, including examinations, projects, plays, presentations, and other forms of evaluation. It also discusses the importance of fair and transparent grading.
- 1.5. Professional Development:** The University encourages faculty to engage in ongoing professional development activities to stay current with educational trends, research and technology.
- 1.6. Student Engagement and Support:** The Policy highlights the importance of fostering student engagement and providing support services, such as tutoring, counselling, and academic advising.
- 1.7. Research and Teaching Integration:** In our research-oriented university, there is an emphasis on integrating teaching and research, encouraging faculty to involve students in research projects. That is to say that teaching and research must go hand in hand.

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- 1.8. Communication Channels:** Clear communication channels for disseminating information related to teaching policies and updates, both to faculty and students.
- 1.9. Quality Assurance:** Mechanisms for ensuring and maintaining the quality of education, potentially including accreditation processes and periodic program reviews.
- 1.10. Feedback Mechanisms:** The policy addresses mechanisms for gathering feedback from students on the effectiveness of teaching and the quality of courses.
- 1.11. Classroom Management:** Standards for creating inclusive, respectful and conducive learning environments, addressing issues such as class size, seating arrangements, and discipline.
- 1.12. Use of Technology in Teaching:** The University policy relates to the integration of technology into teaching and learning, including the use of online platforms, multimedia resources, and distance education.
- 1.13. Ethical Considerations:** The University includes guidelines on ethical behaviour in teaching, addressing issues such as plagiarism, academic integrity, and the responsible use of technology.
- 1.14. Diversity and Inclusion:** Commitment to fostering diversity, equity, and inclusion in the teaching and learning environment, ensuring equal opportunities for all students.
- 1.15. Continuous Improvement:** The University stresses the importance of continuous improvement in teaching, encouraging faculty to reflect on their practices and make adjustments based on feedback and evolving educational trends.

**2. FUTURE DIRECTION-ORIENTED TEACHING POLICY:** The university teaching policy are likely to be influenced by ongoing advancements in education, technology, and societal needs. While specific trends may evolve, some overarching themes are expected to shape the future of teaching policies at universities:

- 2.1. Technology Integration:** Continued integration of technology into teaching methods, with a focus on innovative tools, online platforms, virtual reality, and artificial intelligence to enhance the learning experience.
- 2.2. Flexible Learning Models:** Emphasis on flexible learning models, including hybrid and blended approaches that combine in-person and online elements to accommodate diverse student needs and preferences.
- 2.3. Lifelong Learning:** Recognition of the importance of lifelong learning, with universities adapting their teaching policies to support

ongoing education and skills development throughout individuals' careers.

- 2.4. Data-Informed Decision Making:** Increased use of data analytics and educational data mining to inform decision-making processes related to curriculum design, student assessment, and teaching effectiveness.
- 2.5. Inclusive Education:** Heightened focus on diversity, equity, and inclusion in teaching policies, ensuring that educational environments are accessible and supportive for students from diverse backgrounds.
- 2.6. Interdisciplinary Education:** Promotion of interdisciplinary approaches in curriculum design, encouraging collaboration between different academic disciplines to address complex real-world challenges.
- 2.7. Global Perspective:** Integration of global perspectives into teaching policies, fostering international collaboration, study abroad programs, and cross-cultural learning experiences.
- 2.8. Skill-Based Education:** Shifting towards a more skill-based education, aligning curriculum and teaching practices with the evolving needs of industries and the job market.
- 2.9. Active Learning and Student Engagement:** Continued emphasis on active learning strategies, project-based assignments, and interactive teaching methods to engage students and promote deeper understanding.
- 2.10. Faculty Development and Well-being:** Increased support for faculty development programs, recognizing the importance of investing in educators' professional growth and well-being.
- 2.11. Environmental Sustainability:** Integration of sustainability principles into teaching policies, fostering environmental awareness and responsibility among students and faculty.
- 2.12. Assessment Innovation:** Exploration of innovative assessment methods, including competency-based assessments and alternative forms of evaluation that go beyond traditional exams.
- 2.13. Community Engagement:** Strengthened ties between universities and their local communities, with teaching policies encouraging community engagement, service-learning initiatives, and partnerships with industry.
- 2.14. Agile Response to Change:** Developing teaching policies that are adaptable and responsive to rapid changes in technology, society, and educational trends.
- 2.15. Quality Assurance and Accreditation:** Ongoing efforts to ensure and enhance the quality of education through rigorous quality assurance processes and adherence to accreditation standards.

**3. TEACHING PEDAGOGIES:** In conclusion, a university's teaching policy is a comprehensive set of guidelines and principles that shape the institution's approach to education. It encompasses various key components, including the mission and goals of the university, curriculum design, teaching and learning approaches, assessment and evaluation practices, classroom management, technology integration, faculty professional development, student support services, research and teaching integration, diversity and inclusion, ethical standards, feedback mechanisms, continuous improvement, and quality assurance. These components collectively contribute to creating a dynamic and effective learning environment. A well-defined teaching policy not only ensures the quality and relevance of education but also reflects the institution's commitment to fostering a supportive and inclusive community for both faculty and students. It serves as a guiding framework for educators, aligning their practices with the institution's educational philosophy and goals, ultimately contributing to the overall success and growth of the university and its stakeholders. The University is likely to continue evolving its teaching policy, from time to time, to meet the dynamic needs of students, society, and the ever-changing landscape of education.

**3.1. Modern Teaching Practices and Pedagogy:** The eagerness to continually improve the educational experience of students has been growing steadily around the world. Classroom teaching practices are at the core of a teacher's work. Teachers are more aware of how teaching practices help shape the student learning experience and advance motivation and achievement. Research on institution effectiveness suggests that practices based on theoretical ideas are insufficient to foster student learning. Rather, a combination of clear, well-structured classroom management, supportive, student oriented classroom climate, and cognitive activation (e.g. challenging content that promotes deep reflection in the student) has been shown to be effective.

**3.2. Classroom Teaching Practices:** High-quality instruction is often defined as the use of a variety of classroom teaching practices, allowing for both teacher-directed and self-regulated learning. For educational policy and teacher education, the results support calls for a good balance among the three dimensions of classroom teaching practices: (a) enhanced activities including challenging tasks and content, (b) student oriented, supportive practices and (c) teacher-directed practices that provide structure and clarity.

**3.3. Lecture Method:** The most widely accepted and traditional method of teaching as it creates new ideas, good for large class, teacher can explain all points and subject and can answer all questions raised by students. Students can ask if they need any clarification. Yet by employing following techniques its effectiveness can further be enhanced:

a.) **Interactive techniques:** By employing interactive techniques teaching can be turned into "fun", and are frequently more effective than lectures at enabling student learning.

b.) **Instructor Storytelling:** Instructor illustrates a concept, idea, or principle with a real life application, model, or case-study "Real-World" – Have students discuss in class how a topic or concept relates to a real world application or product

c.) **Everyday Ethical Dilemmas:** Present an abbreviated case study with an ethical dilemma related to the discipline being studied Movie Application – In groups, students discuss examples of movies that made use of a concept or event discussed in class, trying to identify at least one way the movie-makers got it right, and one way they got it wrong.

d.) **TV Commercial:** In groups, students create a 30-second TV commercial for the subject currently being discussed in class. Variation: ask them to act out their commercials.

3.4. **Simulation Method:** Place the class into a long-term simulation (like as a business) to enable Problem Based Learning (PBL).

3.5. **Group Discussion Method:** More participation of students, students listens to other's opinion & expresses their opinion, discuss with teachers the points that were missed during discussion. It can further be improved and added to by:

a.) **Picture Prompt:** Show students an image with no explanation, and ask them to identify/explain it, and justify their answers. Or ask students to write about it using terms from lecture, or to name the processes and concepts shown. Also works well as group activity.

b.) **Individual presentation:** A presentation involves motivating listeners to accept a new idea, alter an existing opinion, or act on a given premise. Students first thoroughly understand the topic before giving presentation i.e. mastery on topic.

c.) **Tournament:** Divide the class into at least two groups and announces a competition for most points on a practice test. Let them study a topic together and then give that quiz, tallying points.

d.) **Role Plays:** Students assume one of the characters in a simulated situation in order to experience different points of view or positions.

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**3.6. Assignment-presentation:** It enhances the ability of research on any topic as the students search topic from different books, websites etc. it should be the regular practice in both UG and PG courses in the university.

**3.7. Workshops/ Conferences:** Competitions give chance to meet other people of same stream or even across the stream networking with other institutions and professionals

**3.8. Learning by doing (Experimental learning):** Learning-by-doing is generally considered the most effective way to learn. The internet and a variety of emerging communication, visualization, and simulation technologies now make it possible to offer students authentic learning experiences ranging from experimentation to real world problem solving.

**3.9. Modern Pedagogy techniques:** Teaching Pedagogies need continuous improvement/ up gradation by way of enriching it with empirical research (by adding relevant research papers in references), case studies and current trends. Use of new technology and other media can add to effective dissemination of knowledge. The following techniques can be used:

**a.) Movies:** Using movies or television clips or whole shows to engage students during lectures or to fuel discussions of course content by pointing out either fallacies or realities depicted there. Examples include using science fiction movies to discuss physics concepts or CSI shows to discuss biology or forensics.

**b.) Podcasting-Enhanced:** Combining images, such as PowerPoint, and audio, such as instructor voice over, which are compressed and viewable on a computer or photo/video iPod. Video: Digital video, such as classroom lectures or interviews with experts, which are compressed.

**c.) Web-based Instruction:** Using Web resources to support learning. blogs, building a Website, discussion boards, online testing and quizzes, research, virtual tours, web-streaming, web conferencing, online discussion board, online interaction (Online Chat, Online Evaluation, E-Mail Feedback). You tube-Video Demonstrations, Movie Clips, Student Videos, Wikies, blogs, games.

**3.10. Interactive whiteboards:** An interactive whiteboard is a touch-sensitive screen that works in conjunction with a computer and a projector. Interactive whiteboards are an effective way to interact with digital content and multimedia in a multi-person learning

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environment. Interactive white boards allow teachers and students to interact with content projected from a computer screen onto a white board surface. Virtually anything that can be done on a computer can be done on an interactive white board, with the advantage that interaction involves fingers and pens and so is more kinesthetic, drawing, marking and highlighting of any computer-based output is supported, a whole class can follow interactions, and lessons can be saved and replayed

#### 4. Suggestions for Improvement in University Teaching Policy

- 4.1. All classrooms have Computers with fast Internet.
- 4.2. Some rooms to begin with, in each department must have Class rooms must be equipped with minimum facilities like LCD/DLP (roof mounted)
- 4.3. Every Lab must be provided with equipments those are necessary for safe environment like fume hoods, eye-washers, safety showers etc.
- 4.4. Safety, security, health and environment (SSHE, University –Industry collaborated) as executed in Department of Chemistry, need to be executed in all Labs of University.
- 4.5. Web-Casting of important Lectures of University teachers on our website for future reference and onwards dissemination of knowledge to other stakeholders.
- 4.6. Documentaries on presentation and communication skills etc must be shown to students department wise and also at level of University.
- 4.7. Each department/School must revise syllabi, at least, in every block of three years.

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## Annexure-2

### **Guru Jambheshwar University of Science & Technology, Hisar**

#### **Research Promotion Policy**

Guru Jambheshwar University of Science & Technology, Hisar is a State University established on October 20, 1995 by an Act of the Legislature of the State of Haryana to facilitate and promote studies and research in emerging areas of higher education with a focus on new frontiers of technology, pharmacy, environmental studies, non-conventional sources energy and management studies and also to achieve excellence in these and connected fields. Guru Jambheshwar University of Science and Technology is an institution with a difference in terms of state-of-the-art infrastructure and good governance to serve societal needs by encouraging, generating and promoting excellence in teaching, research and extension activities.

#### **1. Aims of the Research Promotion Policy**

The aim of the Research Policy is to create a conducive environment of research among faculty and researchers in the University. The Research policy shall assist as an overall framework within which research activities may be carried out.

#### **2. Objectives of the Research Promotion Policy**

- 2.1. Strengthening the institutional capacity by enabling the environment in order to promote the research culture
- 2.2. Ensuring effective and efficient support system to facilitate faculty and researchers in their research activities.
- 2.3. Creating the state-of art research infrastructure to facilitate cutting-edge research activity
- 2.4. Nurturing an environment of undertaking socially relevant research with potential for industrialization/commercialization and national development goals
- 2.5. Motivating the faculty members for getting funding for research from various external funding agencies and strengthening the ecosystem for consultancy projects by faculty members
- 2.6. Providing financial support for conducting and participating the Conferences/Seminars/Workshops nationally and internationally
- 2.7. Providing Minor Research Projects/Seed Money Grant to incumbent faculty members
- 2.8. Ensuring publications in quality peer reviewed journals of national and international, indexed in Scopus/Web of Science/SCIE/SSCI/AHCL/UGC care list and/or with impact factor.
- 2.9. Promoting Intellectual Property Rights (IPR) culture and protecting the IPRs arising out of research conducted by the University faculty members, research scholars and students
- 2.10. Having interdisciplinary collaborations and partnerships with different academic, research, industry or government organizations nationally and internationally.
- 2.11. Establishing Research Laboratories/Centres within University with potential for Excellence.
- 2.12. Recognising and incentivising the faculty members and research scholars for performing the best research activities

#### **3. Policy and Guidelines**

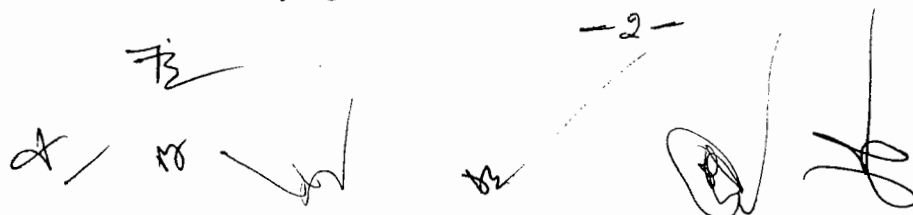
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- 3.1. **Undertaking Research:** Faculty members of the University are expected to carry out quality research leading to publications in peer reviewed Journals of National and International repute and presentations in National and International conferences/Seminars. The Journals indexed in Scopus/Web of Science/SCIE/SSCI/AHCL/UGC care list with good impact factor will be preferred. The impact factor and citations of the publication and h-index of the faculty shall be considered/used to assess the quality of research in a uniform and transparent manner. The individual faculty member shall maintain an updated account of research activities.
- 3.2. **Recruitment and Promotion:** The demonstrable/ demonstrated capability in research of faculty members and research output will be important criteria for faculty recruitment and promotion along with other academic indicators. Norms for measuring the required quantum of research output will be as per UGC rules/State Govt. rules and/or as prescribed by the University from time to time. The quality of research output may be assessed on the transparent and established yardsticks or as revised by the University from time to time
- 3.3. **Research Management:** Overall management of research activities may be coordinated by Research and Development Cell (RDC)/Dean, Research & Development under direct supervision of Vice Chancellor with Research Advisory/Promotion Board and committees as mandated by UGC guidelines dated March 4, 2022 and June 8, 2022 (notified vide ACM-1/APP.22 dated 27-07-2022). Each Institution research activities will be coordinated by HOI or the nominations from each Institute.
- 3.4. **Role of Dean (R&D):** Dean (R&D) is expected to play a lead role in catalysing research culture mandated in NEP 2020 while creating an enabling environment. Vibrant Research Ecosystem also aims to provide a meaningful trust for sustainable research and innovation besides promoting collaboration between University, Industries and Government. Research activity of each Department/School is coordinated by the respective chairperson/ Director with designated authority/responsibility for Pls/Co-Pls. The University have supporting policy frameworks for promotion of research in conjunction with the policy such as Ph.D. ordinance, policy on research ethics and guidelines for research issued by UGC time to time.
- 3.5. **Identification of Thrust Areas:** The University, from time to time, may identify the thrust areas of research in consultation with the respective university Departments/Schools/Authorities. Thrust areas of research need to be documented systematically along with the details of facilities, availability of funding/ scholarship/ incentives/ fellowships and infrastructure available for undertaking research in these areas. As such this shall be a department wise / subject wise document or list placed under circulation for information and reference of teachers and students. This list shall offer ideas and title of proposed project or research work to be undertaken. This document shall also cover the information of industry based projects, projects to be undertaken under MoUs and linkages, details regarding interdisciplinary projects, etc.

#### 4. Funds/Resources for Research

- 4.1. **Intramural Funds- Minor Research Projects/Seed Money Grant:** A separate Budget Head has been created for research promotion with Dean (R&D), and also a separate budget head for allocation of funds for organizing National and International Conferences/Seminars/Workshops by the University. The financial support is given to faculty members for participation in National and International Conferences/Seminars/workshops and intellectual property rights activities. With the aim of helping faculty members to conceive, draft and submit Major Research proposals, the University regularly/yearly provides grant for Minor Research Projects/Seed Money.

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Faculty members availing Minor Research Projects/Seed Money Grant are required to publish their research work in reputed international/national journals. The Faculty member shall submit final project report and utilisation certificate along with published research papers or the status of research papers on the completion of tenure of /Minor Research Project/Seed Money Grant. The University also provides intramural funding for conferences, intellectual property activities and awards based on the quality and impact of research.

**4.2. Extramural Funds:** The faculty members are expected to seek funding as Major Research Projects from appropriate external funding agencies for research grants, sponsored projects and fellowship programmes. They are' also expected to generate consultancy funds from the State / National / International funding bodies/ Government or private (corporate and NGOs / trusts / individuals). Necessary documents to support the research proposals are made available by the University. The University shall monitor the progress of Major Research Projects and all other extramural funding as per guidelines of the specific funding agency and help in submitting the utilisation certificate in time as per the requirement of the funding agency in order to facilitate timely release of subsequent yearly grants.

**5. Quality Research Publication and subscription of Journals in Library/online**

To benchmark research output towards the most influential, highly cited publications within similar fields of disciplines, GJUS&T supports collaboration with leading research data bases. Publication of research papers and filing of patents, designs, trademarks, copyright etc. is considered critical for effective research visibility of the University besides the main task of generation and dissemination of new knowledge. The University encourages these activities by the faculty with this broad targeted aim, and the faculty must publish continuously preferably in the Scopus/Web of Science/SCIE/SSCI/AHCL/UGC care list indexed journals. The University library should subscribe quality Journals in Library/e-resource and research data bases to facilitate the researchers.

**6. IPR & Technology Transfer**

The University has IPR Cell which functions under the Director, IPR with the guidance of IPR Advisory Committee for facilitating the faculty members for protecting the intellectual property generated in the University and further for commercialization and transferring the technology. The Cell has the separate Budget for meeting out all kind expenses with regard to filing the patent fees, examination fee etc. till the grant of patent. The IPR Cell has also budget head for organizing Seminars at least one in each year for awareness and technical know for filing the patents etc. The University/IPR Cell has specifically impanelled IPR attorney(s) for guiding and helping the Faculty members and the University in strengthening its IPR portfolio (Patents, Designs, Copyright, Trademark, and Geographical Indication). The IPR policy of the University is available on the University website

**7. Ethics in Research**

It is expected that each member involved in research adheres to the highest ethical standards of conduct including data integrity and ethical guidelines in place from time to time. The University takes care of all ethical aspects of the project proposals received, and execute the same free from any bias and influence that could affect their objectivity. The University provides advice to the researchers on all aspects of welfare and safety of the research participants after ensuring the scientific soundness of the proposed research.

**8. Research Incentive Schemes and awards**

The University motivates faculty members to publish regularly, to innovate and to generate patentable work. Also to keep pace with the world and to improve the rankings, a progressive improvement in the quality of publications and scale of innovation is imperative. Providing Awards and Incentives is considered as a positive stimulation to improve research performance and accelerate research efforts. Some Awards and Incentives are therefore

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designed with this precise purpose. Complete details regarding these incentives will be notified, from time to time, separately. Research Awards should be presented annually to the regular faculty members/researchers of GJUS&T based on the excellence achieved in a particular category.

**9. Consultancy to the Government, Industry and other Organizations**

Faculty members are encouraged to gradually move towards monetizing the research / academic / technical capabilities by way of undertaking consultancy or providing technical services to Industry and other organizations utilizing the facilities available in the University. The consultancy policy specifies the rules and norms of Guru Jambheshwar University of Science and Technology, Hisar regarding consultancy and obligations depending upon the nature of consultancy. The consultancy policy has well defined provisions of revenue sharing among university and consultants.

**10. Centre of Industry Institute Partnership (CIIP)**

The Centre of Industry Institute Partnership (CIIP) has been established to promote interaction between faculty, students and industry, mainly through consultancy & IPR. The prime objective of the Centre for Industry Institute Partnership (CIIP) is to reduce the gap between industry expectations (practice) and academic offerings (theory) by direct involvement of industry to attain a symbiosis.

**11. Annexure/Formats:** Following annexure/Formats be followed by one and all.

- 11.1. Guidelines of UGC
- 11.2. Guidelines for grant of Minor Research Projects/Seed Money
- 11.3. Guidelines on Consultancy Policy
- 11.4. Guidelines for URS and Guru Jambheshwar ji Maharaj fellowship
- 11.5. Guidelines on IPR Policy
- 11.6. Guidelines on the Start-up Policy, Innovation Policy by PDUIC
- 11.7. Guidelines on Centre of Industry Institute Partnership (CIIP)
- 11.8. Guidelines on Central Instrumentation Lab (CIL facilities)
- 11.9. Guidelines on teachers training (MMTTC)
- 11.10. Guidelines on ethical/anti- plagiarism policy.
- 11.11. Guidelines on research misconduct/researcher's grievances
- 11.12. Guidelines on waste/chemical/radioactive management
- 11.13. Guidelines on subscription of Journals
- 11.14. Guidelines on PhD admissions
- 11.15. Guidelines on research awards

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