

Brief Description in 200 words from Departments for AQAR 2020-21

<p>1.1.1</p> <p>Q_iM</p>	<p><i>Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the University</i></p> <p>Write description in maximum of 200 words</p> <ul style="list-style-type: none">• Upload relevant supporting document <p>The Department of Physics and Astrophysics offers a two-year (4-semester) Masters' program. The course structure (which has been revised recently and came into effect in 2019) includes elective and open-elective papers, apart from the core theory and practical papers.</p> <p>Vision: Excel in generation and imparting of scientific knowledge; inculcate among student the spirit of enquiry, intellectual adventure, and the concern for fellow human beings on the planet.</p> <p>Mission: To impart to the students the beauty and grandeur of the subject of Physics, the connection of the latter with other disciplines, as well as its vast potential to enrich human lives.</p> <p style="padding-left: 40px;">To develop the abilities of generating and communicating knowledge, and build a scientific temper with the sense of social responsibility.</p> <p style="padding-left: 40px;">To conduct outstanding research leading to the discovery of new scientific facts and the methodology of applying them in the way of benefiting the larger living world.</p> <p>Implementation: For the relevant supporting documentation, including the Annual Report, visit the "About us" page of the departmental website http://physics.du.ac.in/index.php .</p>
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<p>2.3.1</p> <p>Q_iM</p>	<p><i>Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences</i></p> <p>Write description in maximum of 200 words</p> <ul style="list-style-type: none">• Upload relevant supporting document <p>Various sorts of methodology applied over time to time to enhance learning experiences have been much more strategized in recent times when the department went from the offline to the online/blended mode of teaching in recent times. Such strategies include:</p> <ol style="list-style-type: none">1. Online resources, such as lecture notes (including solved sample problems or hints for solving tutorial problems), links to video lectures or experimental demonstrations, and other study materials being provided to the students before
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	<p>or during the classes, especially the ones being held online either in the Google classrooms platform or in the Microsoft Teams platform.</p> <ol style="list-style-type: none"> 2. Interactive classroom sessions, with instant quizzes, group discussions, as well as time-bound assignments, with the provision of students' self assessment being emphasized. 3. Online open book examinations, with question papers containing enhanced selections of off-beat or out-of-the-common questions, inclusive of the multiple choice (checkbox type) ones, being methodically devised. <p>The Department, under a vibrant Ph.D. program, offers a plethora of cutting-edge research topics as well. The above strategies are therefore being taken up in the relevant Ph.D. course-work.</p> <p>For more information on the implementation of the above, as well as the revised M.Sc. course structure, visit the respective sub-links of the departmental website: http://physics.du.ac.in/online_teaching.php and http://physics.du.ac.in/courses-of-study-msc.php .</p>
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<p>2.3.2 Q1M</p>	<p><i>Teachers use ICT enabled tools including online resources for effective teaching and learning processes during the year</i></p> <p><i>Write description in maximum of 200 words</i></p> <ul style="list-style-type: none"> • <i>Upload relevant supporting document</i> <p>Various ICT enabled tools, such as the ones for ppt/pdf presentations, categorized quizzes/assignments/demonstrations are being used by the teachers of the department from time to time. In particular, during the nation-wide lockdown in 2020, and the aftermath of that, the online mode of teaching being the only available option, the classrooms have been set up online either in the Google classrooms platform or in the Microsoft Teams platform. The online facilities made accessible by the DUCC are duly utilized in such classrooms. Besides, unofficial google-groups, Whatsapp-groups, Telegram-groups, etc. have been set up by some teachers, involving the students of their respective classes, to share study materials and exchange ideas, as well as for general conversations/notifications. In the Lab-based classes, publicly available virtual labs (for some experiments) have been utilized, apart from resorting to comprehensive demonstrations using the online resources, and continuous evaluation of online presentations of students' works. For more information visit the departmental web-link: http://physics.du.ac.in/online_teaching.php .</p>
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<p>2.3.3</p> <p>Q_nM</p>	<p><i>Ratio of students to mentor for academic and other related issues during the year</i></p> <p>2.3.3.1: Number of mentors: Number of students assigned to each mentor:</p> <table border="1"> <tr> <td>Year</td> <td>2020-21</td> </tr> <tr> <td>Number of mentors</td> <td>40</td> </tr> </table> <p>Formula: Mentor: Mentee 40/396 = 0.101</p> <p>Data requirement:</p> <ul style="list-style-type: none"> • Number of mentors • Number of students assigned to each Mentor • Upload the data template • Upload relevant supporting document <p>(Data template is not applicable to this metric)</p> <p>The complete list of mentor-mentee available in the department would be uploaded soon in the department's website http://physics.du.ac.in/ .</p>	Year	2020-21	Number of mentors	40
Year	2020-21				
Number of mentors	40				

<p>2.6.1</p> <p>Q_iM</p>	<p><i>The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents</i></p> <p>Write description in maximum of 200 words</p> <ul style="list-style-type: none"> • Upload relevant supporting document <p>Visit the following departmental web-links, for the requisite information: http://physics.du.ac.in/courses-of-study-msc.php , and the sub-links of the Research page under http://physics.du.ac.in/index.php .</p>
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<p>2.6.2</p> <p>Q_iM</p>	<p><i>Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution during the year</i></p> <p>Describe the method of measuring the level of attainment of POs , PSOs and COs in not more than 200 words.</p> <ul style="list-style-type: none"> • Upload relevant supporting document <p>Visit the following departmental web-links, for the requisite information: http://physics.du.ac.in/courses-of-study-msc.php , and the sub-links of the Research page under http://physics.du.ac.in/index.php .</p>
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<p>3.4.8</p> <p>Q_nM</p>	<p><i>Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed</i></p> <p>Data Requirements for during the year:</p> <ul style="list-style-type: none"> • Title of the paper • Name of the author • Title of the journal • Year of publication • Citation Index <p>File Description (Upload)</p> <ul style="list-style-type: none"> • Any additional information • Bibliometrics of the publications during the year <p>* The Data obtained from inflibnet will be used for the purpose. (Data template is not applicable to this metric)</p>
<p>3.4.9</p> <p>Q_nM</p>	<p><i>Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University</i></p> <p>Data Requirements for during the year:</p> <ul style="list-style-type: none"> • Title of the paper • Name of the author • Title of the journal • Year of publication • H index <p>File Description</p> <ul style="list-style-type: none"> • Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution • Any additional information <p>* The Data obtained from INFLIBNET will be used for the purpose. (Data template is not applicable to this metric)</p> <p>The complete list of research papers from the department, in Scopus indexed journals, in 2020-21, are given in the sheet 3.4.5 of the enclosed excel file entitled <u>AQAR-info—2020-21.xlsx</u>. The complete list of Books/Chapters of Books/Conference Proceedings are given in the sheet 3.4.6 of the same file. Both the lists would be uploaded soon in the department’s website http://physics.du.ac.in/ .</p>
<p>3.6.1</p> <p>Q_iM</p>	<p><i>Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the year</i></p> <p>Describe the impact of extension activities in sensitising students to social issues and holistic development within a maximum of 200 words</p>

	<ul style="list-style-type: none"> • Upload relevant supporting document <p>None from the department in 2020-21.</p>
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<p>4.4.2 Q1M</p>	<p><i>There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.</i></p> <p>Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities within maximum of 200 words</p> <ul style="list-style-type: none"> • Upload relevant supporting document <p>General policy of the University of Delhi is followed. No separate policy has been taken up by the Department.</p>
<p>5.3.2 Q1M</p>	<p><i>Presence of Student Council and its activities for institutional development and student welfare.</i></p> <p>Describe the Student <i>Council and its activities for institutional development and student welfare</i> within a maximum of 200 words</p> <ul style="list-style-type: none"> • Upload relevant supporting document <p>"The Physics Society" is a forum for the students of the department. It provides them with a platform to engage in the departmental life and enrich it with their academic as well as non-academic activities and participation. The membership of the society consists of currently enrolled M.Sc. and Ph.D. students of the department. The society organizes lectures, seminars by eminent speakers from time to time. It also organizes educational trips to various other academic institutions within the country, and fresher and farewell events for incoming and outgoing students. The constitution of the society is as follows: The head of the department is the ex-officio president of the society.</p> <p>The other office bearers of the society are:</p> <ul style="list-style-type: none"> • Mr. Dhiraj Kumar (Vice President, Physics Society) • Mr. Vikash Jangra (Secretary, Physics Society) • Mr. Anshul Malik (Jt. Secretary, Physics Society) <p>All the office bearers of the society (except the president) are elected by students for a period of one year. The society is advised in its functioning by a departmental advisory committee constituted by the head of the department.</p> <p>For more information visit: http://physics.du.ac.in/physics_society.php .</p>

<p>7.1.1 QIM</p>	<p><i>Measures initiated by the Institution for the promotion of gender equity during the year</i></p> <p>Highlight the curricular and co- and extra-curricular activities promoting gender equity and sensitization and the facilities available for women on campus (within a maximum of 200 words).</p> <p>Provide the weblink to:</p> <ul style="list-style-type: none"> • Annual gender sensitization action plan(s) • Specific facilities provided for women in terms of: <ul style="list-style-type: none"> a. Safety and security b. Counseling c. Common rooms d. Daycare Centre e. Any other relevant information <p>Upload relevant supporting document</p> <p>A spacious Ladies' Common Room, with adequate privacy arrangements, has already been set up in the department in 2019. There is a specific departmental committee to look into the issues related to sexual harassment as well, following the UGC regulations. For more information visit the departmental web-link http://physics.du.ac.in/committee_sexual-harassment-cell.php .</p>
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<p>7.1.2 QnM</p>	<p><i>The Institution has facilities for alternate sources of energy and energy conservation</i></p> <ol style="list-style-type: none"> 1. Solar energy 2. Biogas plant 3. Wheeling to the Grid 4. Sensor-based energy conservation 5. Use of LED bulbs/ power-efficient equipment <p>Options:</p> <p>A. Any 4 or All of the above</p> <p>B. Any 3 of the above</p> <p>C. Any 2 of the above</p> <p>D. Any 1 of the above ✓</p> <p>E. None of the above</p> <p>Upload relevant supporting document</p> <p>(Data template is not applicable to this metric)</p>
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<p>7.1.3 QIM</p>	<p><i>Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)</i></p> <ul style="list-style-type: none"> • Solid waste management • Liquid waste management • Biomedical waste management • E-waste management
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	<ul style="list-style-type: none"> • Waste recycling system • Hazardous chemicals and radioactive waste management <p>Upload relevant supporting document</p> <p>General management plan and infrastructure of the University of Delhi regarding disposal and recycling of wastes under the mentioned categories is being followed and utilized.</p>
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7.1.4	<p><i>Water conservation facilities available in the Institution:</i></p> <ol style="list-style-type: none"> 1. Rainwater harvesting 2. Bore well /Open well recharge 3. Construction of tanks and bunds 4. Waste water recycling 5. Maintenance of water bodies and distribution system in the campus <p>Options:</p> <p>A. Any 4 or All of the above</p> <p>B. Any 3 of the above</p> <p>C. Any 2 of the above</p> <p>D. Any 1of the above</p> <p>E. None of the above ✓</p> <p>Upload relevant supporting document</p> <p>(Data template is not applicable to this metric)</p>
QnM	

7.1.6	<p><i>Quality audits on environment and energy are regularly undertaken by the institution</i></p> <p>7.1.6.1. The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following</p> <ol style="list-style-type: none"> 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities <p>Options:</p> <p>A. Any 4 or all of the above</p> <p>B. Any 3 of the above</p> <p>C. Any 2 of the above</p> <p>D. Any 1of the above ✓</p> <p>E. None of the above</p> <p>Upload relevant supporting document</p> <p>(Data template is not applicable to this metric)</p>
QnM	

<p>7.1.7</p> <p>Q_nM</p>	<p><i>The Institution has a disabled-friendly and barrier-free environment</i></p> <ol style="list-style-type: none"> 1. Ramps/lifts for easy access to classrooms and centres. 2. Disabled-friendly washrooms 3. Signage including tactile path lights, display boards and signposts 4. Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. 5. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc. <p>Options:</p> <p>A. Any 4 or all of the above</p> <p>B. Any 3 of the above</p> <p>C. Any 2 of the above</p> <p>D. Any 1 of the above ✓</p> <p>E. None of the above</p> <p>Upload relevant supporting document</p> <p>(Data template is not applicable to this metric)</p>
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<p>7.1.8</p> <p>Q₁M</p>	<p><i>Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).</i></p> <p>Upload relevant supporting document</p> <p>General institutional efforts/initiatives prevail. Nothing taken up separately by the Department.</p>
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