

Frequently Asked Questions: **Postgraduate Diploma in Data Engineering and Cloud Computing**

What is PGD in Data Engineering and cloud computing Program about?

Developed by IIT Jodhpur in collaboration with industry proponents, the 12-month intensive Program weaves together academic lectures from top faculty from IIT Jodhpur, hands-on practical sessions conducted on state-of-art technology labs led by Industry Experts, assignments, and capstone project to provide as experiential learning in Data Engineering with a focus on Cloud Computing.

In these 12-months, the students are expected to master the key technologies involved in generating insights from data that solve complex social and business challenges of today's world. In this Program, the students will imbibe the technologies and methodologies to manage the complete lifecycle of a data engineering project - from big data collection to insight generation using machine learning techniques.

Who is this Program for?

If you are aspiring for a high growth career in Data Engineering and Cloud Computing, this Program provides you with the right knowledge, tools, prestigious IIT PG Diploma credential, and #LearnToWin Career Assistance to help you succeed.

For aspiring and current software, and technology professionals, this PG diploma Program helps hone high in- demand skills such as big data engineering, cloud computing, and machine learning.

What is the objective of the Program?

The proposed Postgraduate Diploma in Data Engineering and Cloud Computing aims to explain the conceptual underpinnings of data engineering technologies, and their real-world applications in various industry domains such as Retail, Finance, People (Human Resources), and social media etc.

Through a masterfully designed curriculum, the Program will connect various phases and the underlying techniques of a real-world data project - Data Collection & Ingestion of various types of data, Data Storage techniques and infrastructure on Cloud, Data Processing, and Insight Generation from the stored data.

What will be the Learning Outcome of the Program?

- Work in a Python environment read data into data structures, read-write into files, clean and analyze data to obtain valuable insights.
- Design modern databases, write applications to manipulate data thereof.
- Learn and apply computer science principles & algorithms in the development of distributed systems applications.
- Explain modern big data technologies, ecosystems, and conceptualize big data systems.
- Design and implement appropriate storage and processing techniques for every type of big data.
- Deploy data mining techniques to discover insights from big data.
- Develop a cloud deployment strategy for a big data application and implement it successfully.
- Use supervised and unsupervised learning techniques to derive insights from big data.
- Understand and explain big data, characteristics, concepts, life cycle, and ecosystem, and technical understanding of data structures for Big Data.
- Understand and work on cloud environment to deploy models and utilize cloud-based infrastructure

What will I gain from the Program?

- Learning Data Engineering helps entrepreneurial decision making.
- A Diploma certification from IIT Jodhpur, which helps validate skills as per an industry need
- Several use cases on implementing scientific decision making and deployment using the modern-day Cloud technologies.
- Focused business relevant and outcome-oriented training
- Hands-on learning with branded study resources such as live projects, videos, study material, case studies, labs, assessments templates that can be used beyond the course
- Alumni status by IIT Jodhpur
- Academic credits
- Opportunity to attend 10 day in Campus Immersion at IT Jodhpur campus thrice-**Total 30 days**

Does Postgraduate Diploma in Data Engineering and Cloud Computing hold equal value & status as any other Full-time program from IIT Jodhpur?

Yes

Can the certificate issued by IIT-Jodhpur be submitted for government jobs?

Yes

What are the criteria of eligibility?

The eligibility criteria prescribed below are the absolute minimum with no possible exceptions.

- The applicant must have a bachelor's degree in engineering or science (4-year Program) or a master's degree in science, MCA or in a related field.
- A minimum of 50% marks in UG/PG or a minimum CGPA of 5.0 on a scale of 10 with corresponding proportional requirements when the scales are other than 10.
- The applicant must be a working professional with a minimum of two years of work experience (after qualifying degree) in industry/R&D laboratories/Academic Institutions at the time of registration to the Program.
- The applicant must qualify the written test conducted by IIT Jodhpur or its appointed agency.

What are the Fees of the Program?

Fees structure for the PG Diploma in Data Engineering and Cloud computing

S.No.	Particulars	Amount (in INR)
1.	Course Registration fee	2,99,000 /-
2.	Campus Immersion fee*	10,000/-
Total		3,09,000/-

Fees structure for the Certification in Data Engineering **OR** Cloud computing

S.No.	Particulars	Amount (in INR)
1.	Course Registration fee	2,39,000 /-

2.	Campus Immersion fee*	10,000/-
Total		2,49,000/-

Note:

- Option, at any time while enrolled in Certificate program, to take the PGD with ₹ 99 Thousand as additional fees payment.
- Student may choose, not continue with PGD and to receive the respective Certificate as long as those requirements have been met. There are no refunds if the student selects this option.
- Campus Immersion fee is an administrative cost (infrastructure usage, and other expenses) and does not include boarding & lodging (participants will have to spend it separately).

Is loan facility available?

Yes. Please contact your program advisor to know more.

Please Note: Loan/EMI will be processed through a third-party NBFC partner. While opting for the loan/EMI fee payment, terms and conditions of the third-party NBFC partner apply.

Is there any scholarship available for this program?

No

What are the prerequisites for the Program?

Basic statistics/ Math knowledge, exposure to coding preferred. This is to ensure you are at par with the pace for the Program.

Will there be any pre-screen exams for enrolling into the Program?

Yes, below is the schema test that evaluates a candidate's pre-existing knowledge and aptitude in 2 core areas: Math for Data Engineering and Logic & Programming Foundations.

Module 1: Includes: Math for Data Engineering (Data Interpretation, Math, Statistics, Probability, Calculus and Linear Algebra): 18 Questions (2 marks): 36 marks

Module 2: Includes: Logic and Programming Foundations - 7 Questions (2 marks): 14 marks

- Overall Total Exam Time: 60 Mins*
- NOTE: Both the modules are mandatory.*
- To be qualified, a candidate needs to score at least 35% in each of both modules 1 and 2.*

What are the documents to be submitted for application?

- Application Form*
- ID proof – Aadhaar Card/ Passport*
- Class 10th and 12th Marksheet*
- Final year mark sheet and degree certificates for graduation and PG*
- Work experience certificates (the documents should clearly indicate the date of joining and years of experience)*
- Appointment letter for the current organization*



- g. Last 3 months salary slips
- h.2 passport size photographs
- i. Any Other requirements as specified in the offer letter
- j. Any proof of professional experience

Is there any minimum work experience required to attend the Program?

Working professional with a minimum of 2 years of work experience (after qualifying degree) in industry/R&D laboratories/Academic Institutions at the time of registration to the Program.

Can Internship be shown as work experience?

No.

Is there a selection process?

- a. Yes. The learner must submit all the mandatory documents, which would be verified by IITJ or its appointed agency.
- b. After screening the application along with relevant documents IIT-Jodhpur will send a provisional offer letter to the student over email.
- c. The student will have to pay the required fees as mentioned in the offer letter within 15 days from the date of issuance of the offer letter.

Please note: Wiley is the student recruitment and on-boarding partner for the IIT Jodhpur PG Diploma in Data Engineering and Cloud Computing Program. All enquiries will be routed to Wiley personnel for student counselling and application processing.

Do I need to have expertise in coding, what language?

Basic knowledge of any Programming language would help a learner understand things in a better way.

What is the payment schedule and process?

Provisional offer letter from IIT Jodhpur will have a payment link (pay the fee within 15 days from the date of issuance of the offer letter). The payment will be done directly at the IIT Jodhpur checkout page and the learner will get a formal invoice post-payment completion and course access from the delivery team within 48 hours of the payment.

For Loan Candidates

The Loan providing bank may transfer the amount of the fees to the provided bank account through RTGS/NEFT/other methods. After the successful payment transfer, a list consisting of details of applicants (such as Application id, Name, RTGS No., amount, and any other detail, if any) should be sent to IITJ for the compilation, tracking, and issuance of payment receipts.

Are there any group discounts for corporates?

Yes, we have special discounts. Please contact your program advisor to know more.

I have a payment related query. Whom shall I contact?

Please contact: oa_automation@iitj.ac.in, pgd_decc@iitj.ac.in





What is the refund/cancellation policy?

Application withdrawal and cancellation will only be entertained before program registration. A one-time refund processing charge of INR 5000 will be applicable for eligible refund requests. *Please Note: No refund requests will be entertained after the registration is complete.*

Important Dates

Last Application Date: 7th August 2022
Orientation Date: 14th August 2022
Class Start Date: 14th August 2022

When do the classes commence?

The classes will commence on 14th August 2022.

I have a related query to PGD Data Engineering and Cloud Computing. Whom shall I contact?

Please contact: pgd_decc@iitj.ac.in

What is the duration of the program? & When will the classes happen?

- There are three trimesters in the program. The online classes will happen as mentioned below.
- The majority of classes will be held on Saturdays and Sundays.
- Few of the classes will also be held on weekdays (after work hours).
- In most cases, classes may not take place during festivals or national holidays if they fall on weekends. If any change due to some compelling reasons, candidates will be informed in advance. Final Class timings are to be informed during orientation.

What kind of project work will be a part of the Program?

The **Capstone Project** will be a team project and will include Data engineering and cloud problems relevant for the digital business and ecommerce sector context. You will have to build a solution based on the problem. You will have access to mentors and client roles to interact with and build the solution. At the end of the Program, you will have to present your solution to a panel of experts.

What is required by the student to attend the online session/classes?

You will have access to an online LMS. Virtual classes will be conducted through our technology-aided platform. Following infrastructure will be required by the participants who sign up for the online classes must invest in the following hardware/software:

- A Windows PC with a minimum of quad-core processor
- Windows 8.0 or higher OS
- System architecture: Windows- 64-bit x86
- Minimum 5 GB disk space to download and install
- A PC that is free from virus
- 8-12 GB of RAM
- A high-speed internet connection (4 Mbps or higher) – It has to be a DSL connection. Wireless Broadband can be used but only as a backup to a regular DSL line.
- The PC and the broadband must be powered by a UPS or Inverter that has a minimum of 4-hours of backup support. (Only indicative. If the power supply in your area is notoriously bad, you might think of investing in an inverter of higher capacity that supports 9-10 hours backup for powering a PC and Broadband Modem).
- And finally, a quiet room with a table and chair. It is preferable that you have a 16” / 32” / 42” Monitor to display the classroom video.





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Please note: *If you do not meet this infrastructure requirement, you will not be able to access the online classes properly.*

Will the live-online classes be recorded and archived?

Yes, the live online classes will be recorded and archived, and access will be provided to you for the entire duration of the course.

What are the courses that will be taught?

Courses will be taught by IITJ faculty members. Some sessions or sometimes full courses are offered by domain experts from other reputed institutes and industries.

Trimester I - 10 credits:

- Linear Algebra for Big Data
- Statistics for Data Engineering
- Python Programming for Data Engineering
- Databases and SQL Programming

Trimester II - 14 credits:

- Big Data Retrieval and Integration
- Big Data Systems and Platforms
- Big Data Management
- Electives/Specialization

Trimester III - 12 credits:

- Fundamental of Cloud Computing
- Fundamentals of Distributed Systems
- Machine Learning with Big Data
- Mini Projects

What tools will I learn from this Program?

You will learn in-demand tools in the industry that may include the followings: -

- Python Programming
- OS Fundamentals
- Big Data Management Frameworks
- Algorithmic Frameworks
- Popular Python Libraries for Big Data Engineering
- SQL/No-SQL based management systems
- Cloud Solutions and Deployment

Do you offer a lab?

We will provide learners with a virtual lab environment and all exercises and datasets to conduct labs.

Will I be getting books or study material for this Program?



WileyNXT



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No printed copy or books will be provided. You will be getting access to a Learning Management System (LMS), videos and recordings of classes, industry case studies, data sets, access to an online lab infrastructure and selected e-books. The student will have LMS and eBook access for a total duration of 12 months.

What is an industry Masterclass?

Industry masterclasses will be delivered by top Industry and Tech Leaders to give you an in-depth understanding of the role of Data engineering and Cloud Computing. The industry masterclasses will be application/ case study oriented and will give you an in-depth understanding of the contextual application of the concepts in real-life business scenarios. The industry masterclasses will be followed by business casework as well as peer learning opportunities.

Please Note: No. of masterclasses may change as per the availability of experts and requirements of the Program.

Is it a completely online Program?

The Program will be delivered through Online Live virtual classes by IIT Jodhpur faculty experts and industry experts as detailed above, followed by a capstone project at the end.

Along with that there will be in-campus immersion of 10 days per trimester.

Please Note: Attendance of immersion sessions at the IIT Jodhpur Campus is mandatory to earn program certificate

How rigorous is this course and how many hours of studying and project work beyond lecture time would it need every week/month approximately?

The student will require a total of 14 hours per week to take up the course. Beyond the lecture time and active engagement with the instructor, the student will require up to 7 hours weekly, for homework that includes watching learning videos, reading e-text/materials, playing recorded lectures, referring to presentations, trying out self-assessment quizzes and other audio-visual activities.

Can I opt for elective courses? What elective courses are offered in this program?

The following are the electives available

- Retail Analytics
- People Analytics
- Financial Analytics
- Digital Financial Services
- Digital marketing Analytics
- Social Media Analytics
- Qualitative Analytics for Business

What is Campus Immersion?

Campus immersion will be an essential element of the program, in which learners must attend the campus activities and sessions during that immersion period. Campus immersion attendance is mandatory to earn the program certificate. Learners will get a classroom experience, with the opportunity to meet and discuss with the esteemed faculty at IIT Jodhpur. However, it will be subject to cancellation/postponement based on future emergency circumstances/covid-19 advisory as issued by the government of India. Learners must come for 10 days at the end of each trimester, if and only if the situation is conducive to covid-19 regulations/advisory.

Please Note:

- Campus immersion agenda will be provided before the immersion sessions.
- Learner accommodation will be subject to the availability of hostel space. Nominal charges may apply for





accommodation.

- The immersion fee and program fee do not include food and lodging charges.
- The Information related to the learner Identity card will be provided before the immersion.
- Campus immersion will be subject to cancellation or postponement based on the covid-19 advisory as issued by the government of India or any other future emergency circumstances.

What will be the agenda for the 30 days in campus immersion?

- a. Exams may be conducted during the immersion
- b. Opportunity to meet and discuss with faculty on your learnings
- c. The details related to the campus immersion agenda will be provided in due course of time.

Will the students be provided any identity cards to attend the campus?

Yes.

Will hostel accommodation be provided for outstation candidates from different states

During campus visit in contact hours, subject to availability, paid accommodation may be made available. Nominal charges for accommodation may apply.

42. What if the campus immersion doesn't happen?

Campus Immersion is subject to cancellation/postponement based on covid-19 advisory as issued by the government of the India or any other unforeseen future emergency circumstances. In such a situation the campus immersion fee will be refunded to the student.

How will the examination be conducted?

Examination will be conducted through an online platform. In some cases, examinations may also be held during the immersion period. All the exams will be proctored, and all the activity will be recorded.

Will there be an additional Exam fee or reappear fee in case of exam reattempt?

Yes, there will be an additional fee amount charged by IIT Jodhpur, please contact your program advisor for more information.

What are the criteria for getting the certificate?

- a. The students will be awarded certification based on the following:
- b. Attendance in live online classes – this must be a minimum of 75%
- c. Project Work – All participants will have to submit their projects as a mandatory deliverable at the end of the Program which will be evaluated by the faculty/trainers/ industry experts
- d. Acceptable grade points will have to be secured by the participants as per academic regulations of IITJ (https://iitj.ac.in/uploaded_docs/Regulation/Academic_Regulations_Final_03_09_2019.pdf).





- e. In-campus immersion attendance
- f. Completion of the asynchronous learning content. (self-paced LMS Videos, Quizzes and Assignments)
- g. Evaluation components will consist of continuous evaluation and final examination. Continuous evaluation involving project, assignments, quizzes, and other components may carry about sixty to fifty percent of the weightage.

What if I complete the Program but do not have the required attendance or do not pass the final exam? A learner would need a minimum of 75 % attendance to be eligible for the final exam and accordingly the certificates will be granted, failing to do so may invite a huge risk of getting the certification.

Will I get alumni status?

Yes, learners will get the alumni status as part of this Program; there are no alumni fees associated with this Program.

Will I get an email id from the institute if I get alumni status?

Yes, learners will get an email id IITJ domain as part of the alumni status of the Program.

Will you organize a graduation/valediction ceremony?

Yes, a valediction ceremony will be organized.

Do students of this program also get campus placements?

No, since this is a program for working professionals.

Will I be eligible for a MTech Admission after completing this course?

The details will be available in the latter times.

What will be the case studies and projects?

Data Engineering and Cloud Computing are the only topics covered in the projects.

Additional exam reattempt fee - what is the fee?

This will be informed in due course of time.

How many Mini projects are there in the curriculum?

In Trimester 3, there is one mini project for three credits.

When do we get to choose the electives/specialization? Which Semester?

Electives/specializations will be available to applicants in Trimester 2.

Will the students get an alumni status if they opt for certification only?

If a student does not complete a graduate requirement, she/he will **not be granted alumni status**. Hence, certificate candidates will not get the alumni status as of now. However, it can be looked at a later point. As it stands, certificate candidates do not get alumni status,

Will there be a separate offer letter for the Certification course?

No. The same offer letter. The participant can indicate her/his interest to pursue the Certification





Will there be the same assessment criteria for certification?

Yes

Will there be immersion compulsory for the Certification program? If yes, will the immersion fees be the same?

Currently, as we understand, campus immersion may **not be required** for the certificate candidates. It will, however, be subject to changes in the policy. They might be required to perform the immersion if the need arises (accordingly, applicable fees may be collected).

What are the benefits of course credits to the students opting for certification?

As discussed earlier, it will help in their career progression, and may use this certificate for any further learning wherever it is accepted.

