

# LEARNER'S HANDBOOK

Data Science and Machine Learning  
Program by Massachusetts Institute of  
Technologies

## WELCOME

Over the past decade, Great Learning has been a leader in introducing innovations in business education in response to the fast changing business landscape. Several of our highly successful programs are ranked within the top 10 in India and our 5000plus alumni work across industries in 30 different countries.

The **Data Science and Machine Learning program by MIT Institute for Data, Systems, and Society (IDSS)** has undertaken with the aim to provide solutions to complex societal challenges by understanding and analyzing data. The program is thus committed to the development of analytical methods that can be applied to diverse areas such as finance, energy systems, urbanization, social networks, and health.

This handbook is designed to orient you to the many resources and opportunities available as you begin your journey here. Use this guide to maximize your learning outcomes and have a positive impact on your career, peers and the Great Learning community.

## PROGRAM STRUCTURE

The **Data Science and Machine Learning program** is rigorous and requires dedication and commitment from you to achieve its learning outcomes. On an average, you will need to dedicate 6 to 8 hours of time every week to the program and it is critical that you follow the timelines and keep up with the program, else you risk falling significantly behind. It becomes very difficult for you to catch up once you fall behind. There are several mechanisms such as reminders and notifications built into the system to help you maintain the schedule, but the most important requirement is your commitment.

The **Data Science and Machine Learning program** enable participants to gain an in-depth understanding of analytics techniques that are widely used by companies globally from the convenience of their own homes without any location constraints. It is an e-learning program that takes a very practical approach to teaching analytics enabling participants to apply their learning immediately to solve business problems.

As you would be familiar by now, the Program is broadly organized into nine modules, the details of which are given below from the structure point of view.

## Structure of Program (Tabular)

S.No	Courses	Weeks	Video Duration (hours)	Mentoring Sessions	Duration of Sessions (total hours)	Self - Study and Practice (total hours)	Total (hours)
1	Foundations for Data Science	2	4.5	2	4	6	14.5
2	Making Sense of Unstructured Data	1	1.79	1	2	3	6.79
3	Regression and Prediction	1	1.43	1	2	3.5	6.93
<b><u>Learning Break</u></b>							
4	Classification and Hypothesis Testing	1	2	1	2	3	7
5	Deep Learning	1	0.6	1	2	2	4.6
6	Recommendation Systems	1	2.81	1	2	3	7.81
7	Networks and Graphical Models	1	2.6	1	2	3	7.6
8	Predictive Analytics	13	0.7	1	2	2	4.7
Total		10 (including the learning break)	16.43	9	18	25.5	59.93

The course involves approximately **60** hours of learning comprising of approximately **16.5** hours of video content, **18** hours of mentored learning sessions, and around **25** hours of self- study.

Each course will be of 1 week (except the Foundation for Data Science course) comprising of around **2** hours of videos, **2** hours of mentored learning session and approximately around **3** hours of self-study. There is a week where there is a learning break and no content will be released.

## PEDAGOGY

Faculties from Great Learning & Massachusetts Institute of Technologies will deliver the video content along with analytics Industry professionals. This ensures that the program imbibes Great Learning's academic elegance and Industry's Business relevance, thereby providing the candidates a remarkable learning experience.

### Personalized Mentored Learning Sessions:

Personalized Mentored Learning sessions are weekly live online-based learning sessions conducted by industry experts or alums for small groups of 10-15 learners. We refer to these groups as micro-batches which enable students to be more engaged and participative in these small groups. In these sessions, the mentor plays the role of the instructor, walks the students through a practical example that illustrates the concepts being learnt and clears doubts to ensure that learning happens.

### Aims:

- To comprehend learning material better with our one - on - one mentoring
- To create a stimulated learning environment with our optimized mix of lectures, hands-on practice and mentor led interactive sessions.
- To make learning effective as information is provided in shorter and manageable portions.
- Have a more flexible and manageable learning schedule giving the freedom to acquire new skill in a productive way.

#### Video Lectures:

A week prior to the commencement of the program, you will be receiving a welcome note providing a detailed schedule of the courses and planned activities. Please check the Learning Management System(Olympus) for the course outlines, reading materials and other pre-class requirements that you may need to familiarize yourself with before the start of video content.

#### Preparing for Mentoring Session:

- One week prior to the mentoring session, you will receive an announcement regarding the agenda of the session.
- Participants are expected to watch all the video content before attending the mentored learning sessions.
- You are expected to post your questions before the mentoring session so that your queries are resolved in a systematic way. You are also expected to stay on track with the schedule so that you are able to follow what is being taught

## TECHNOLOGY ENABLED ONLINE LEARNING

Online learning, facilitated through a state-of-the-art, world class, Olympus (Learning Management System), is an integral part of the program. The OLYMPUS is your primary information and communication exchange mechanism. It will provide access to the learning material that is part of the various courses.

This includes pre-class reading material, case studies, exercises and data sets that may be used in class, quizzes, assignments and online learning videos. It also has mechanisms for you to communicate with the Program Office, Faculty and with each other.

Once you login to the OLYMPUS, please do the following:

- Update your profile and name
- Update your notification preferences

## PROGRAM EVALUATION

The program curriculum consists of a combination of video lectures and mentor sessions. Please refer to the Grading Policy, provided along with the handbook, for details on the evaluation policy. While we encourage collaboration, we expect participants to adhere to the highest standards of ethics and avoid plagiarism and copying. Plagiarism will not be tolerated by the institute. If detected, the penalty may be severe. In cases of copying, both the parties will be penalized. Given that you are all experienced professionals who are pursuing this program with the primary objective of learning, you are expected to follow the honor code and not indulge in unethical behaviour or plagiarism.

## COMMUNICATIONS

The program office is your partner in ensuring you achieve the desired learning outcomes. Use the following means to communicate to the Program Office and with your peers to get a timely response to your queries.

### Messages on the OLYMPUS:

Send a message to Program Office when clarification to your questions is intended to be private using Support feature on Olympus Dashboard. These may include any of the following:

- Clarifications around a grade you received
- Any other personal issues such as seeking permission to miss a mentoring session due to travel etc.

Program Office will respond within 24-48 hours.

### Announcements:

Program Office may also communicate with you when important information has to be solicited, shared or in response to your questions. Program office will post an announcement when new course material is available, if there are any changes to upcoming courses and other program related issues. These announcements will appear in your home page of the OLYMPUS. Please ensure that you log in regularly and pay attention to any new announcements to ensure that important information is not missed. You can also modify your communication preferences so that an automated email is sent you whenever a new announcement is posted.

### Notifications:

Notifications are automated system generated messages sent to the whole class whenever important new information is available. These may involve availability of grades, reminders for an upcoming assignment due date and when assignments are released. These notifications will also appear in your home page of the OLYMPUS. You may again modify your communication preferences to receive an email whenever a notification is made.

## FEE PAYMENTS

- In case of non-payment or delay in payment of fees as per the schedule mentioned in the admission offer letter, your Olympus (Learning Management System) will be disabled automatically and will become active only once the payment for the due instalment is made.
- Extensions in fee payment are not allowed.

- In case any candidate is availing loan facility to make the payment towards the program fee, He/she shall initiate the loan process well in advance so that the payment can be made as per the payment schedule mentioned in your admission offer. No further extension will be provided to make the payment in case of delay in processing of the loan from the financing agency or bank.
- In case the candidate is making payment through cheque, the same should be submitted with the admissions office (address mentioned in the admission offer) at least 7 working days before the payment due date.
- In case of payments made through Loan/ Cheque/ DD: Candidate needs to share the transaction detail, amount, date and bank name with the admissions team (admissions\_support@greatlearning.in) on the date of payment.
- It is highly recommended that you make the payment using one of the online payment modes made available to you as it will not cause any delay in updating your fee status with the institute and hence will ensure uninterrupted access to the Olympus (Learning Management System).
- Please note that any query related to fee payment/OLYMPUS activation shall be made between working days - Monday to Friday (10 AM to 6 PM) only. Any query reaching the admissions team after the mentioned period will be taken up on the next working day
- As mentioned in the admission offer, fees once received will not be refunded.

## CODE OF CONDUCT

Great Learning's Honour system expects participants to act with integrity, respect community standards, and manifest a commitment to ethical responsibility in all matters. This includes all academic activities (interaction with other participants during the mentoring sessions, online discussion etc.)

The honour system expects all participants to act professionally in all matters, including with respect to resolution of disputes.

### Virtual Sessions Etiquette:

High Professional standards are expected of all participants of PGPDSBA. For enhanced session experience, we require you to abide by the following: Join sessions on Time: On time arrival ensures that sessions are able to start and finish at the scheduled time.

- Come fully prepared for each session: This programme is structured in such a way that a core learning in this programme takes place during the video lectures and application part of the concepts is covered during mentoring session. When you are not prepared then you cannot contribute to the overall learning process. This affects not only the individual, but also disservice to your peers.
- Respect the views and opinions of peers: Disagreement and debate are encouraged. Intolerance for the views of others is unacceptable.
- It would be appreciated if you do not leave sessions early. If you will have to leave early for any reason, intimate Program Manager or mentor in advance.

## CONCLUSION

Once again, congratulations and welcome as you begin your journey with Great Learning. Since the **MIT-DSML-IDSS** is a rigorous program, you will find that there may be many challenges – academic and personal. Please be informed that we are here to encourage and support you as you meet your learning objectives and achieve your career aspirations.

**Happy Learning!**