INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, BANGALORE

PG Diploma Program in Software Development – Student's Manual

This Student's Manual has details of the program assessment policy and student learning experience. You are expected to go through this manual thoroughly and abide by the policies mentioned here. Abiding by these policies will ensure a smooth conduct of the program.

In case you have any questions, please reach out to your student mentor immediately.

Program Structure

The Program is divided into 9 courses (1 pre-requisite, 7 courses and a Capstone Project). Each course has a fixed number of units/credits.

Table 1 – Units/Credits for each course

Course Number	Course Title	Units/Credits
0	Prerequisite – Intro to Programming	-
1	Object Oriented Programming	2
2	Algorithms	2
3	Data Structures	4
4	Software Engineering Frameworks and Server Side Development	5
5	Distributed and Scalable Server Architecture	5
6	Software Design and Frontend Development	5
7	Advanced Front-end Development and DevOps	6
8	Capstone Project	4
	Total	**33**

Each course is divided into several modules. Each module is divided into sessions and each session is further divided into pages. A page is usually a combination of videos, text, images and questions which can be consumed individually.

You can access the learning platform on.learn.upgrad.com using your UpGrad ID & Password. You can also access content on the mobile app (iOS App Store & Google Play Store). You are encouraged to download the mobile app so that you can receive instant notifications about latest developments. You are also requested to move all emails from UpGrad to your primary inbox. This will prevent chances of missing out on important communications.

As a part of your onboarding process, you should expect a Welcome Email from your student mentor in the first week of your program launch. You should also expect a Welcome Kit (containing T-Shirt, Pens, and Stickers) within first month of program launch. In case you don't receive the Welcome Kit or the Welcome Email, please reach out to our team at **pgdsd@upgrad.com** or directly contact your student mentor.

Program Assessment Policy

Graded Components in the Program

As a general policy, assessments are divided into formative and summative, without too much emphasis on a single assessment. Hence, a variety of assessments are planned.

The PG Program comprises following types of graded components (with their respective weights):

Table 2 – Program Graded Components

Type of Assessment	Details	No. of such assessments per course	Weight towards Course Grade
Courses 1 – 7			
Module Graded MCQs	Graded Multiple Choice Questions at the **end** of every module. The student gets **only one attempt** to answer the question. After the first and only attempt, a prompt feedback (right answer and reasoning) is provided to the student.	Varies by Course	20%
Assignments/ Case Studies	Individual assignments or project submissions. Students are required to submit assignments/ projects by a deadline. Refer the _Graded Component Submission &Grading Timeline_ section of this document for more details on submission timelines. Students will receive feedback on their submissions.	1 or 2 per course	40%
Online Exam	Three Online Proctored Exams ● Exam 1 – For Courses 1,2 & 3 combined (to be held after Course 3) ● Exam 2 – For Course 4 & 5 (To be held after Course 5) ● Exam 3 – For Course 6 & 7 (To be held after Course 7) For each exam, the student will have 2 distinct slots over 2 different days to choose from	1.5 - 2.5 hours/exam	30%
Class Participation	Grades allotted basis participation on Discussion Forum (Refer the _Peer to Peer Participation & Discussion Forum Section_ below for more details) Please note, grades are only awarded for Faculty/TA Verified posts and peer up-votes. There is a penalty for up-vote manipulation and inappropriate posts.	NA	10%
Course 8 – Capstone Project			
Project Grading	Submissions to be graded across multiple phases	2-3 submissions	90%
Class Participation	Discussion Forum Participation	NA	10%

Based on the above graded components, let's take an example to understand calculation of grades. Let's say that in Course 4, your score is given as below. The weightage of each component is mentioned in brackets:

- Module Graded MCQs (20%) – 65/120
- Assignment/ Projects (40%) – 1000/1500
- Online Exams (30%) – 35/50
- Class Participation (10%) – 80/100

Your final percentage for Course 4 would be calculated as a sum of the individual products of the scores in individual components i.e.

Final Percentage Score = [{0.2*(65/120)} + {0.4*(1000/1500)} + {0.3*(35/50)} + {0.1*(80/100)}] = **66.5%**

Final percentage scores of all learners is calculated in a similar manner and then letter grades are assigned to each learner by respective course faculty based on the relative scores of the cohort.

Other Non-Graded Components

Apart from the above-mentioned graded components, students will also experience in-video questions (questions which pop in during the video). These questions are usually not graded. However, research proves that such questions help in understanding and retaining a concept. Hence, students are advised to take these questions seriously. Students will get prompt feedback on such questions.

During the program, students will experience several extra-curricular activities (such as networking sessions and events, guest lectures on specific topics, etc.). While these activities are not graded, students are advised to participate in such activities. Such activities are crucial to build your professional network, learn about latest developments and help make your profile stand out. These are valued by potential employers.

Grading Policy

Calculation of Grade Point (GP)

The marks provided for each assessment, scaled by the weight given to that assessment, add up to the overall score for the course. Grade point average (GPA) is awarded on a 4-point scale based on the normalized course-level scores of the entire batch. The faculty has autonomy to decide on the grading scale based on the relative scores of the batch.

There are 10 letter grades: A, A-, B+, B, B-, C+, C, D, F and I. The correspondence between grades and points (on a 4-point scale) is given below:

Letter Grade	A	A-	B+	B	B-	C+	C	D	F
Grade Points	4	3.7	3.4	3	2.7	2.4	2	1	0

The grade 'I' does not carry any grade points and is interpreted as 'Incomplete'

If a learner does not complete all the requirements for a course for a genuine reason and is found eligible for a Grade Improvement Opportunity (GIO), the academic committee may award the grade 'I' (Incomplete). An 'I' grade must be converted to a regular letter grade by appearing for Grade Improvement Opportunity, failing which, it is automatically converted to an 'F' grade.

Calculation of Cumulative Grade Point Average (CGPA)

The Grade point score one receives for each course and the capstone project, weighted by its respective units/credits (Refer Table 1), add up to the CGPA for the entire program. Please note, the GP is truncated (and not rounded off) at two decimal places.

For instance, if the GP awarded to a participant are G1, G2 etc. in courses with corresponding credits/units U1, U2, etc., the CGPA = (U1*G1 + U2*G2 + ...) / (U1 + U2 +…), wherein U1, U2 refer to the credits/units of all courses taken up to the time of computation of CGPA.

Criteria for successfully completing PG Program in Software Development

A learner must pass each course by getting at least a D grade (1 grade point on a 4-point scale) in every course. However, to get the PG Diploma, the Cumulative Grade Point Average or the CGPA should be greater than 2.4. Learners are strongly recommended to put in all the effort to make sure that they are meeting these criteria. If you get a grade below D in any course or fail to score at least 20% in any of the assessment elements, then you will fail the course and will not be eligible for the Diploma. You will however have access to content just like your peers and will be given feedback on your submissions. You will also be eligible for a letter of participation upon completing the program provided you have scored overall above 40% marks in the graded MCQs throughout the program.

All students will get a transcript of their performance in the program. Learners who are not able to meet the minimum criteria (defined above) to successfully complete the program, will not receive the Post Graduate Program Certificate.

Grade Improvement Opportunity (GIO)

We understand that in a rare scenario, due to unforeseen circumstances one may not be able to meet the above criteria for passing a course. We do not want such instances to make a learner ineligible for receiving diploma. In such cases a Grade Improvement Opportunity (GIO) is given to the learner to help them get through the program and be eligible for getting the diploma certificate.

- A maximum of **one GIO** can be availed by a learner for exactly one course in the entire program (Course 7 + Capstone project)
    a. If the marks scored by the students are less than 20% in any of the components - MCQs, assignments & case studies, class participation, the usual exam for that particular course is treated as GIO (Note# hence, by scoring below 20% in any component in any one course, the student will end up utilizing the single GIO opportunity automatically by appearing for the exam of that particular course)
    b. If the student has scored above 20% in all the components but has scored less in the exam, then he can be offered a GIO (only if he hasn't utilized one) which would be a separate exam
- If one fails in GIO or does not appear, then they fail the course.
- Learners will be notified about the GIO one week in advance.
- GIO will be decided by the academic committee and could be in form of a viva, online proctored exam or any other mode of assessment as deemed fit by the Academic committee.
- If one fails in more than one course then they will not be eligible for the diploma as GIO can be given for only one course.

Code of Conduct

As mentioned in the **Code of Conduct** document, Academic Dishonesty and Plagiarism, in any form, for any graded component/evaluation is not acceptable.

Learners are not allowed to request or share solutions for any graded component of the program on any platform. Any violation of this policy will result in <u>zero</u> score for that particular graded component. If a learner is found to violate this policy for a second-time, IIIT Bangalore Academic Committee will decide on the necessary disciplinary action to be taken.

Further, any form of plagiarism and impersonation, including learners presenting others' work as their own, sharing solutions with each other, copying codes from public repositories, etc. will not be accepted. Submissions by learners will be subject to plagiarism checks to ensure compliance with this policy. Learners may also face random viva's by the concerned faculty to ensure that submissions have been created by the learner.

Please note, IIIT Bangalore Academic Committee has the final authority to decide upon the disciplinary action to be taken in case of plagiarism and impersonation.

Similarly, learner misbehaviour on any online or offline forums will not be accepted. In case such misbehaviour is noted, the learner may have to face appropriate Disciplinary Action.

Graded Component Submissions & Grading Timelines

Assignment/ Project & Case Study/ Graded MCQs Submission Deadlines

The program is structured so that the entire cohort can experience the courses together. Modules in a course will be made available to learners well in advance. The students will have ample time to go through the modules, assignments and case studies/projects.

A calendar with all graded component deadlines i.e. module graded MCQs, assignment, case study deadlines and exam dates will be shared with the candidates via email and will be visible on the platform before the launch of every course. **It is advisable to keep following calendars and notifications on the platform/mobile app** to keep abreast of the latest developments, upcoming events and deadlines.

Graded MCQs, Assignment and Case Study deadlines are non-negotiable except under dire circumstances. Each of the above-mentioned graded components will have 2 deadlines:
- Deadline 1: Deadline by which the graded component is due. Submission by Deadline 1 ensures that there is no late submission penalty.
- Deadline 2: Usually Deadline 2 is one (1) week after Deadline 1. If a graded component is submitted after Deadline 1 and before Deadline 2, then it will be graded on 70% of the total marks of the graded component.

Please note that all deadlines are in IST (i.e. UTC + 5:30). Hence, if you are in a different time zone, your local deadline may vary according to the time zone. For example, A submission is due at 23:59:00 IST. If you're in London and follow the British Summer Time (BST) i.e. UTC + 1, then the deadline for you in local time would be 19:29:00 BST.

Exams will be conducted in an online proctored format in a designated exam week (refer student calendar for exact dates). Learners will have 2 distinct slots on 2 different days to appear for the exam.

Deadline Extension Policy for Assignments & Case Studies

Deadlines are usually non-negotiable, except under dire circumstances (such as major health or work related issues, etc). In such cases, you may be given an extension of 1 week. This means that Deadline 1 will be extended by 1 week (i.e. you can submit the graded component upto one (1) week after the usual Deadline 1 without attracting the 30% penalty). However, no further extension will be granted beyond this extended Deadline 1 as solutions are released the very next day. Here are some guidelines about deadline extension:

- A learner can avail a maximum of two (2) deadline extensions during the entire program. Deadlines can be extended by a maximum of 1 week. No further extension is granted beyond this extended deadline.
- Extensions are allowed for assignments, projects/case studies only. Deadlines cannot be extended for Graded MCQs and Exams.
- To avail for an extension, you must contact your student mentor, with a formal request addressed to the "Academic Committee, PG Program in Software Development", clearly stating the reason for deadline extension. Learners are advised to raise a request of deadline extension at least a week prior to the deadline.
- The final decision to grant deadline extension lies with the academic committee. You will be notified by the student mentor if your request has been approved.

Grading Timelines

Scores for all graded components (i.e. module graded MCQs, assignments, case studies/projects and exams) for each course will be provided together within four (4) weeks of the last submission or the course exam (whichever is later). Once these scores are available, learners will be notified and they can access their scores on the Individual Performance Profile Section on the platform.

The GPA and CGPA will be released 2-3 weeks after scores for all graded components are made available.

Feedback Timelines

- **Module Graded MCQs**: Participants will receive a prompt feedback after attempting module Graded MCQs.
- **Assignments & Case Studies/Projects**:
  - An ideal solution will be released a day after the completion of second submission deadline.
  - Qualitative feedback will be provided along with the scores.

As mentioned earlier, students will also receive prompt feedback for in-video MCQ questions.

Feedback on Assignments and Case Studies/Projects is provided by graders who have Software Development expertise. Their feedback is extremely valuable. Hence, learners are advised to act upon the feedback and improve.

Re-Evaluation Guidelines

- Learners can request for re-evaluation for the graded components.
- Request for re-evaluation must be submitted within 3 days of declaration of the results. For e.g.: if results are declared on 7th January, 2018, then the request for re-evaluation must be made till 10th January, 2018 (end of day). Learners can apply for re-evaluation from the learning platform itself.
- The learner should clearly point out the specific portion of the submission which has to be re-evaluated. Learners should also mention remarks regarding the discrepancy. Requests that do not have this information are extremely generic and may be flagged as invalid/not considered for re-evaluation. If re-evaluation requests are found to be non-genuine then the student can be penalized 20% of the marks.
- A re-evaluation request claiming discrepancy of marks (as compared to another learner's marks) is highly discouraged and will **NOT** be considered for re-evaluation.
- A re-evaluation request for an assignment/project/case study for the correct submission file which has been uploaded after Deadline 2 is highly discouraged and will **NOT** be considered for grading.
- All re-evaluation requests will be responded to within a period of 3 weeks from the time of raising a re-evaluation request.

Peer to Peer Participation & Discussion Forum – Guidelines

Discussion Forum is an effective way for networking with peers and getting doubts resolved. The discussion forum can be accessed through the platform/mobile app. The forum is organized by topics and is constantly monitored by Teaching Assistants (TAs)

Please note: The Discussion Forum is meant for academic doubts/queries and course related topics only. For any non-academic doubts, learners are encouraged to use the social media/Whatsapp groups.

Guidelines for posting queries on Discussion Forum

Since this program involves coding on multiple platforms, learners are requested to adopt the following guidelines to ensure timely redressal of their queries:

- In case you are facing an issue with a code snippet, you are requested to post the code snippet, coding environment being used and the problem faced on the discussion forum. This will allow your friends and TAs to understand the problem and resolve the same faster.

Since the discussion forum is meant for academic doubts/queries and course related topics only, **any inappropriate posts that are of no learning value will be deleted immediately and learners posting such comments/posts may be penalized.**

As mentioned in the Code of Conduct Document, learners are not allowed to request or share solutions for any graded component of the program on any platform. Any violation of this policy will result in zero score for that particular graded component. If a learner is found to violate this policy for a second-time, IIIT Bangalore Academic Committee will decide on the necessary disciplinary action to be taken.

It should be noted that students should not share code on the platform. They can use pseudo-code. Any actual codes and answers shared on the platform shall be deleted by Teaching Assistants promptly.

Detailed Discussion Forum guidelines are mentioned in the Community Guidelines Document.

Doubt/Query Redressal Timelines

The discussion forum has been created with the intention of fostering peer to peer learning. Hence, you are encouraged to answer your batch mates' queries.
- First 24 hours (after posting a query) are meant to allow batchmates' to respond to queries. In this period, if needed, TAs may guide the discussion in a right direction/verify response.
- If a post/query doesn't have any verified answers after 24 hours, TAs will respond to the query/post in the next 24 hours.

Peer to Peer Participation Grades

In order to facilitate peer to peer participation, 10% of the grade of each course has been allotted to learner participation on the Discussion Forum.
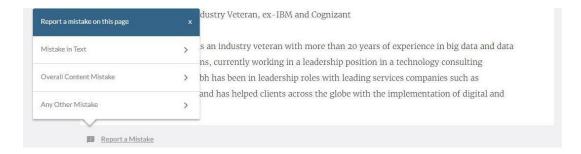
Points are awarded **only** based on the quality of the posts, which is measured by the peer upvotes and TA verifications, and not on the basis of number of posts. No points are awarded for simply posting questions/answers. TAs can verify multiple answers to the same question.

Please note, points on the discussion forum are not equal to the direct marks awarded in peer-to-peer participation. Faculty will assign marks to the participation based on the overall performance of the cohort. Additionally, peer-to-peer participation grades will consider participation only on the discussion forum. Participation on any other social media platform doesn't count towards peer-to-peer participation grades.

Any attempt at upvote manipulation will be penalized. Hence, you are requested to adhere to the community guidelines.

Reporting an Issue

The program endeavours to provide high-quality learning and learning experience. Multiple initiatives are taken to ensure that your learning is seamless and that your learning is of the highest quality. However, In spite of multiple round of reviews, there may be a few inadvertent gaps in the learning experience, which you can report through "Report a Mistake" Button at the bottom of every page.

Once you report an issue, a ticket is raised and the issue is resolved within 24 hours. While reporting an issue, you have the option of describing the problem. To ensure that your problem is resolved at the earliest, you should give a detailed description of your problem.

Using the "Report a Mistake" feature to get academic doubts resolved earlier is highly discouraged. This feature should only be used to report mistakes in the learning experience (for e.g. Platform Error, Text/Video Mistake, Content Mistake, etc.)

For any other issues you may want to take up with IIITB directly -
- Sexual Harassment Issues, Kindly email to icc-iiitb@iiitb.ac.in
- Grievance Redressal Issues, Kindly email to grievances@iiitb.ac.in
- Ombudsman (Grievances which have not been addressed by IIITB administration in a reasonable amount of time), Kindly email to iiitbombudsman@iiitb.ac.in

Extra-Curricular Activities & Live Sessions

Faculty & Industry Live Sessions

As a part of the program, live sessions will be organized once every 3-4 weeks. These live sessions will be conducted by a mix of leading industry professionals and professors. However, the mix may vary by course. These live sessions are an integral part of the learning experience and are organized to facilitate:

- Discussions related to careers/ latest industry trends
- Collective Doubt Redressal
- Discussion on Content

Live Sessions will usually be conducted on the weekend and learners are expected to attend and actively participate in these sessions. The schedule for these live sessions will be sent to you via e-mail.

In case you're not able to attend a session due to prior commitments, recording of the session will be provided to you!

Extra-Curricular Activities

During the course of the program, several Extra-Curricular activities like Industry Guest Lectures, offline networking sessions (or UpGrad Basecamps) will be organized. These sessions are extremely important to keep yourself abreast of latest industry trends and also to build a professional network that will help you tremendously in your career. Participation in such events makes your profile stand out and increases chances of building a successful career in Software Development!

Student Mentors will notify you of such events in advance. Schedule for these events will also be put up on calendars. Learners are expected to attend such events and derive maximum benefit from the same.

Career Services

At regular intervals in the program, you will have access to career modules, where you will get guidance related to different Software Development Career Options and Profile Building. Specifically, you will have access to following key components of Career Services:

- **Consultative Sessions with Software Development Experts:** Basis your past experience, skills and interests, a seasoned Software Development expert will help you identify the most suitable career path for you.

- **Resume & LinkedIn Profile Building Sessions**: These sessions will be extremely helpful in teaching you how best to build your resume and project yourself on LinkedIn

- **Competitive Coding Challenges / Recruitment Exams**: These challenges will help you prepare for the technical interviews and coding competitions organised by several companies as a part of their hiring process.

- **Interview Preparation**: We will arrange for 1:1 mock interviews for you with mentors providing detailed and personalized feedback. This will help you do your best on interview day

- **Job Opportunities**: Through UpGrad's industry network, we will source exciting Software Development job opportunities for you. Students should start building their portfolio from the time the course starts. Only then it shall be polished and presentable to companies by the end of the course.

Please note – Significant effort is put in to organise the above services. Hence, you learners are requested to abide by the following guidelines to avail career services:

- Before Career Services elements begin, you will be required to "Opt-In" for career services i.e. Should you wish to avail the above services, you will have to "Opt-In" for the same. Student Mentors will notify you about the date for "Opting-In" for Career Services.
- You will have additional career related deadlines (e.g.: Finish a Consultative Call with a Software Development expert by <Date> or Prepare a Resume by <Date>). These deadlines will be communicated to you through the calendar on the learning platform/App. Since career services elements involve external stakeholders (i.e. industry professionals), you will be expected to meet these deadlines. In case you don't meet deadlines, the academic committee can put severe penalty by debarring you from availing career services.