Indira Gandhi National Open University
School of Computer & Information Sciences (SOCIS)

Details about the PGDCA (New) Programme Delivery and Evaluation related matters

The PGDCA (New) Programme Delivery and Evaluation related matters are mentioned below in detail:

1) **Software Requirements**
2) **Theory and Practical Sessions**
3) **Compulsory practical attendance**
4) **Evaluation Scheme**
5) **Academic Counsellors' Mapping**

1 Software Requirements:

The software requirements are the software requirements for PGDCA:

Course Code		Proposed Software
Semester - I		
MCSL-204	WINDOWS and LINUX Lab	Windows Operating System Linux Operating System
MCSL-205	C and Python Lab	For C: Compilers of C/C++ for Windows or Unix. For PYTHON Anaconda (open source software for Python), Google Colabs
Semester-II		
MCSL-209	Data Structures and Algorithms Lab	Compilers of C/C++ for Windows or Linux
MCSL-210	DBMS and Java Lab	**DBMS Lab:** MySQL, PostgreSQL **JAVA Lab:** NetBeans IDE for Java EE Developers/ Eclipse IDE for Java EE Developers

All Study Centres / Programme Study Centres should possess the **licensed software**. ***Beta*** versions of the software should not be entertained. Enough licenses as per number of machines for a 1:1 ratio. The Regional Directors / Asst Regional Directors should visit and cross-check all the study centres whether they possess the licensed software before they give permission as study centres / PSC's for PGDCA (New) programme. Most of the recommended software is open source software.

2 Theory and Practical Session

(i) For a 4-credit theory course there will be 6 counselling sessions of 2 hours duration each.
(ii) There will be 20 practical sessions for every 2 credit lab course, each session being of 3 hours duration.
(iii) Student-Counsellor ratio: Theory counseling – 60 students to one counsellor
Practical counseling – 30 students to one counselor

(iii) Student to machine ratio should be 2:1

PGDCA 1st Semester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-201	Programming in C and Python	Theory Sessions	4	6	12	-	-
MCS-202	Computer Organisation	Theory Sessions	4	6	12	-	-
MCS-203	Operating Systems	Theory Sessions	4	6	12	-	-
MCSL-204	WINDOWS and LINUX Lab	Practical Sessions	2	-	-	20	60
MCSL-205	C and Python Lab	Practical Sessions	2	-	-	20	60

PGDCA 2nd Semester Schedule

Course	Title of the course	Theory/ Practical	Credits	No. of Theory Counselling Sessions	Hrs	No. of Practical Counselling Sessions	Hrs
MCS-206	Object Oriented Programming Using Java	Theory Sessions	4	6	12	-	-
MCS-207	Database Management Systems	Theory Sessions	4	6	12	-	-
MCS-208	Data Structures and Algorithms	Theory Sessions	4	6	12	-	-
MCSL-209	Data Structures and Algorithms Lab	Practical Sessions	2	-	-	20	60
MCSL-210	DBMS and Java Lab	Practical Sessions	2	-	-	20	60

- **Theory counselling sessions is of 2 Hr duration.**
- **Practical counsessling sessions is of 3 Hr duration.**

Semester	No. of Sessions		No. of Hours	
	Theory	Practical	Theory	Practical
I	18	40	36	120
II	18	40	36	120
TOTAL	**36**	**80**	**72**	**240**

Total Computer time = Practical time

= 40 Sessions =120 Hours

Note: 75% attendance is compulsory in Practical Lab Sessions.

3 Compulsory Practical Attendance

The following issues regarding the attendance for the practical sessions are to be considered:

(i) 75% attendance is compulsory in the practical sessions for each lab course. This is a pre-requisite for taking the term-end practical examination in that course.

(ii) A student who fails to fulfill the 75% attendance requirements for a lab course should be allowed to re-register for the same **course**. The pro-rata fee for a lab course will be changed as per the University norms.

(iii) Students are required to prepare a separate lab record for each lab course. This lab record will be duly signed by the counselor of practical session after each session.

(iv) Student's attendance should be recorded course wise at the Learner Support Center (LSCs)

4 Evaluation Scheme

The evaluation for each course covers two aspects:

(a) Continuous evaluation (b) Term-End examination

The following evaluation scheme for MCA (New) programme is proposed:

Type of Course	Continuous Evaluation (only one assignment)	Term End Examination
Theory	30%	70%
Practical / Lab	30%*	70%

Each assignment will be worth 100 marks and weightage will be 30%. Theory assignment will consists of 80% marks for assignment questions and 20% marks for viva-voce. A student must appear for viva-voce in order to pass the assignment. The lab course assignment will consist of 40% marks for lab records, 40% marks for assignment questions and 20% marks for viva-voce.

* A student cannot appear for the term-end practical examination of a lab course unless s/he has 75% attendance in the lab / practical course.

Completion of the programme requires successful completion of both assignment component and the Term-end Examination component for each course in the programme. The total numbers of courses in this PGDCA programme are 10 and the total number of credits is 32.

Evaluation for each course covers two aspects:

(b) Continuous evaluation through Assignment with a weightage of 30% (please refer to the table below). *Viva- voce is compulsory for all the Assignments for which 20 marks are allocated.*
(c) Term-end examination with a weightage of 70% (please refer to the table below).

Note: A learner should not apply for appearing at the term-end examination of any course without getting registered for the same and that if s/he does so, her/his result would not be declared and the onus shall be on him.

Assignments and Term - End Examination

The main purpose of assignments is to test student's comprehension of learning the materials they receive from the University and also to help them get through the courses by providing feedback to them. The information given in the printed course materials should be sufficient for answering the assignments. However, as Computer Science is an ever enhancing area, the students should make an attempt and work with extra reading material easily available at the Study Centre / Regional Centre libraries or through websites for working on the assignments. This will enhance his/her learning capabilities. Mostly the assignments are designed in such a way as to help her/him concentrate mainly on the printed course material, exploit their personal experiences and apply the knowledge gained from various sources.

Assignments

There will be **only one assignment for each course worth 100 marks (weightage of 30%)**. The set of all the assignments for each semester are given in one booklet that you will get along with your course material as well as the same will be uploaded on the IGNOU's website also.

The table shown below provides the detailed marking scheme for the PGDCA courses.

Semester	**Course Code**	**Course Title**	**Credits**	**Continuous Evaluation** **Assignment** **(Weightage – 30%)**		**Term End Examination** **Theory OR Practicals* (for Lab courses only)** **(Weightage – 70%)**		
				Max Marks	**Min. Marks**	**Duration**	**Max. Marks**	**Min. Marks**

I	MCS-201	Programming in C and Python	4	100	40	3	100	40
	MCS-202	Computer Organisation	4	100	40	3	100	40
	MCS-203	Operating Systems	4	100	40	3	100	40
	MCSL-204	WINDOWS and LINUX Lab	2	100	40	2	50	20
	MCSL-205	C and Python Lab	2	100	40	2	50	20
II	MCS-206	Object Oriented Programming Using Java	4	100	40	3	100	40
	MCS-207	Database Management Systems	4	100	40	3	100	40
	MCS-208	Data Structures and Algorithms	4	100	40	3	100	40
	MCSL-209	Data Structures and Algorithms Lab	2	100	40	2	50	20
	MCSL-210	DBMS and Java Lab	2	100	40	2	50	20

*** No practical examinations for the non-lab courses. Practical examination will be conducted for the lab courses only.**

The letter 'L' in the course code represents the lab course. Pass in each and every section in the practical course of

Term End Practical Examination is compulsory in order to get it declared successful in the respective course.

All the assignments and term-end exams will be scored on a numerical marking scheme. Any component that has not been attempted would be treated as having a score of zero marks. The requirement for passing would be at least 40% in continuous evaluation and 40% in the term-end examinations, with an overall average of 40% for a pass in the course.

The viva voce is compulsory for the assignment evaluation. For any course, in case, if a student submitted the assignment and not attended the viva-voce, then the assignment is treated as not successfully completed and would be marked as ZERO.

In order to be able to appear for the Term-end examination, it is a requirement that the student submit all the assignments according to the prescribed schedule. All students will be required to give an undertaking to this effect, and should it be later found that they had in fact not submitted the assignments as prescribed; the results for the Term-end examination will be treated as cancelled. Viva voce is compulsory for all the assignments for which 20 percentage marks are allocated.

Unfair means in attempting the assignments

If the learners copy the assignments, which is an important component of the ODL system, such assignments will be awarded "zero" and such students will be directed to re-attempt the fresh assignments pertaining to the next year which will indirectly delay the award of degree by a semester/ year.

Additional guidelines for Lab Course Assignments and Term End Practical Examination

The following are the evaluation guidelines for the lab courses.

(i) Evaluation of Assignments for Lab Courses

The assignments of lab courses consist of three parts:

- Continuous assessment of practical sessions (lab records) (total 40 marks),
- Assignment questions (total 40 marks)
- A combined comprehensive **viva-voce (**total 20 marks)

The marks allotment details for various lab courses are shown in the following table:

Course Code	Continuous Assessment of Practical Sessions Lab Records (40)	Assignment Problems (40)	Combined Viva (20)	Total Marks (100)
MCSL-204	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-205	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-209	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100
MCSL-210	Section –1(20) Section –2(20)	Section –1(20) Section –2(20)	20	100

It is to be noted that minimum passing marks are overall (lab records + problems + viva) **40% in each assignment**.

(ii) Term End Practical Examination

The term-end examination of the practical courses consists of several sections. Each section will be evaluated separately. The viva-voce for each section will also be separate. The following table shows the details:

(Practical questions –80 % and Viva-voce – 20 %)

Course Code	**Duration of term-end practical exam. (Each section gets Equal time)**	**Term-end practical examination and viva-voce**	
		Marks Section-1	Marks Section-2
MCSL-204 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-205 (2 credits)	2 hours	20 (P) +5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-209 (2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks
MCSL-210(2 credits)	2 hours	20(P) + 5(V) = 25 marks	20(P) + 5(V) = 25 marks

P- problems given in the exam paper, V –viva-voce for that section

A student needs to obtain a minimum of 40% in **each section** of the term-end practical examination for successful completion of that particular section. In case a student does not secure the minimum passing marks in a section, s/he needs to appear for the term-end practical examination again for that section only.

5 Academic Counselor's Mapping

The counsellor should have relevant teaching experience in the related course. The mapping of some of the present courses to new courses is shown in the following table. For all other course new counsellorsmay be appointed through the due process of appointment of counsellors.

Academic Counsellor's Mapping (Subject to fulfilling the minimum eligibility criteria as per UGC norm)				
Existing Academic Counsellor for the course		**Approved For**	**PGDCA(New) Courses ***	
Course Code	**Title of the Existing Course**		**Course Code**	**Title of the Course**
MCS-011	Problem Solving and Programming		MCS-201	Programming in C and Python
MCS-012	Computer Organization and Assembly language Programming		MCS-202	Computer Organization
MCS-041	Operating Systems		MCS-203	Operating Systems
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-204	WINDOWS and LINUX Lab

MCSL-017	C and Assembly Language Programming Lab		MCSL-205	C and Python Lab
MCS-024	Object Oriented Technologies and Java Programming		MCS-206	Object Oriented Programming Using Java
MCS-23	Introduction to Database Management Systems		MCS-207	Database Management Systems
MCS-021	Data and File Structures		MCS-208	Data Structures and Algorithms
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-209	Data Structures and Algorithms Lab
MCSL-025	Lab (based on MCS-021, 022, 023 & 024)		MCSL-210	DBMS and Java Lab

⋆ Subject to fulfilment of the minimum eligibility criteria as per the IGNOU Academic Counsellor Norms / UGC ODL regulations 2020.
