### PROGRAMME PROJECT REPORT (PPR)

# Post Graduate Diploma in Computer Applications (PGDCA)

Directorate of Distance Education (DDCE), Fakir Mohan University, Balasore, Odisha

### PROGRAMME PROJECT REPORT (PPR)

### Name of the Programme:

Post Graduate Diploma in Computer Application (PGDCA)

## (a) Programme's Mission & Objectives: Mission

The broad objective of the PGDCA programme is to prepare Post Graduates for productive careers in software industry, corporate sector, govt. organisations and academia by providing skill based environment for teaching and research in the core and emerging areas of the discipline.

The Programme's thrust is on giving the students a thorough and sound background in theoretical and application-oriented courses relevant to the latest computer software development. The programme emphasizes the application of software technology to solve mathematical, computing, communications/networking and commercial problems.

### **Objectives**

This aim of diploma is to develop dynamic computer professionals in short time. The programme covers all aspects and basics in Computer Application. It also has projects for developing full software in various software languages along with real time environment. The programme prepares the student to undertake Master Programme and for designing small business application softwares as per the need of industry and real world.

### **Programme Educational Objectives**

The Post Graduate Diploma in Computer Application(PGDCA)Programme Educational Objectives aims to:

- 1. PGDCA graduates who will have successful careers based on their understanding of formal and practical methods of Application Development using the concepts of computer programming, software and design principles.
- 2. PGDCA graduates will demonstrate analytical and design skills including the ability to generate creative solutions and foster team-oriented, professionalism through effective communication in their careers.
- 3. PGDCA graduates who will exhibit effective work ethics and be able to adapt to the challenges of a dynamic job environment.

### (b) Relevance of the Programme with HEI's Mission and Goals:

The Post Graduate Diploma in Computer Application (PGDCA) programme to be offered through Open and Distance Learning mode is purely relevant and aligned with the goals and missions of the University.

### (c) Nature of Prospective target groups of Learners:

### The Prospective target group of learners are-

After getting an PGDCA degree, one can enter any of the following roles :-

### 1. Joining IT firms Software and Web Developments

PGDCA has endless scopes in software. Those who with have skill and knowledge in programming and programming languages like HTML, CSS, jQuery, Ajax, PHP, MySQL, Python, and Perl etc. can choose an IT industry with Web development background.

### 2. Laboratory Assistant / Technician

A Laboratory Assistant/ Technicianis antrainee who helps in student for their better understanding in computer based practical.

#### 3. School Coordinator

After successful completion of PGDCA programme, the learner can join as school coordinator for training school students.

### 4. Digital Marketing

After PGDCA can also make a career in digital marketing. This field is emerging day by day.

### 5. Self Engagement

After MCA learner can also become an entrepreneur.

### 6. Go for Higher Studies

After PGDCA the learner can go for higher studies, depending upon his background and interest. After PGDCA learner can opt followed degree:

• MCA(Lateral Entry)2 years course

## (d) Appropriateness of the Programme to be conducted in Open and Distance Learning mode to acquire specific Skills and Competence:

This program is concerned with design, development, and use of computer applications. Application implies incorporation of the operating system, a utility and a programming language. Thus, PGDCA graduates are able to develop and prepare documents, projects, presentations, design websites and demonstrate skills in running software programs. Besides imparting theoretical knowledge, a lot of stress is laid on hands-on training and overall development of the personality. Students graduating from this program can work gainfully in software services companies, outsourcing companies, and other allied sectors. The program has been designed to impart advanced knowledge in various areas of computer applications. It has been designed in such a way that student can complete it based on their advanced coursework. The structure of this program fosters a highly varied learning orientation in students by balancing core courses, advanced elective courses, and a substantial dissertation or project.

The University provides the opportunity to the human resource, basically to the poor and rural people to get a quality education in English literature, which can fulfill the demand of the society.

### (e) Instructional Design:

### **Programme Structure:**

SEMESTER I				
PAPER NO.	PAPER NAME	CREDIT		
T101	Fundamentals of Information & Communication Technology	03		
T102	Computer Organization and Architecture	03		
T103	Problem Solving and Programming through C	03		
T104	Discrete Mathematical Structure	03		
CS-60*	Foundation Course in Mathematics in Computing	Non -		
	(For Non-Math students only)	Credit		
L105	Computer Fundamental Lab.	02		
L106	C-Programming Lab.	02		
SEMESTER II				
T201	Object Oriented Programming through C++	03		
T202	Database Management System	03		
T203	Data Structure using C++	03		
T204	Software Engineering	03		
L205	Data Structure Using C++ Lab.	02		
L206	DBMS (Oracle) Lab.	02		
MP207	Mini Project	04		
	Total	36		

No. of Counseling Sessions :- (9 Hours) / Paper [10 Units/Paper] No. of Practical Sessions :- (60 Hours) / Paper [06 Units/Paper]

### **Duration of the Programme:**

Minimum: One Year (Two Semesters)

Maximum: Three Years from the date of Registration.

### Credit System:

The University follows the Credit system for all its programmes. Each credit is equivalent to 30 hours of student study comprising all leading activities such as reading and comprehending the printed material, listening to audio, video tutorials, online and computer aided material (SWAYAM, MOOC and NPTEL etc.), attending counseling sessions and writing assignments. Thus a four credit course involves 120 hours of study.

#### **Instructional Delivery Mechanism:**

The methodology of instruction is different from the conventional mode of teaching. Most of the instructions are imparted through distance education methodology rather than face to face mode of communication.

- (i) Audio Visual Materials: The learning package contains audio and video materials for better clarification and understanding of the course material. These materials along with the playing equipments are available in the Centre of the University. These programmes are played on fixed days as per time table. These also could be played at the mutual convenience of the students and the Course Coordinator.
- **(ii) Counseling Sessions:** In distance Education, face to face contact between the learners and their tutors is relatively less and therefore the counseling sessions are important. The purpose of such a contact programme is to answer some of the questions and clarify doubts that may

not be possible in other means of communication. Such programme also provides an opportunity to meet other fellow students. The Counsellers at the Study Centres are expected to provide guidance to the students. The counseling sessions are held during weekends and vacations.

- (iii) **Practical Work:** There are several practical components in this programme.
- (iv) Online and Computer added Materials: Learners are supported with online and computer added materials.

## (f) Procedure for Admission, Curriculum Transaction and Evaluation:

### **Admission Procedure:**

In PGDCA programme candidates can take admission directly. But for this purpose the candidates have to apply for admission in prescribed format of the University after publication of advertisement of admission notice.

**Eligibility Criteria:** The programme is open to any Graduate or its equivalent.

**Fee Structure:** The total course fee for PGDCA programme is Rs. 10,000/- (The students will pay in six installments, i.e. Rs. 5,000/- per Semester)

### **Evaluation System:**

- (i) The examination has two components that is
  - a) Continuous Evaluation (Assignments) 20% and
  - b) Term EndExamination (University Examination)80%.
- (ii) Eachstudenthastocompleteandsubmitassignment in each of the theory paper beforebeing eligible to appear for the term end examination. The term end examination shall be of 3 hours duration.
- (iii) Minimum qualifying marks in each paper is 40% individually in internal and termendexamination. The final gradation will be as follows:

1st Division	2 <sup>nd</sup> Division	Pass only
60% and above	50% to below 60%	40%to below 50%

- (iv) The Fakir Mohan University will conduct the examinations, evaluations and issue certificates to the successful candidates.
- (v) All the end term examinations will be held in the own campus of the University.
- (vi) Qualitatively, the examinations conducted for the students of Distance Education are on par with the examinations conducted for the regular College/University students.

### Academic Calendar:

Form apply and Admission	June – September		
	Contact Programmes	Examination	Declaration of Result
1st Semester	November–	February -	April – May
PGDCA	February	March	
2 <sup>nd</sup> Semester	April – July	July –	September –
PGDCA		August	October

### (g) Requirement of Laboratory Support and library resources:

The MCA programme is based on Theory and Practical. Hence, there is laboratory support for all practical classes. The University provides computer laboratory facility to the learners for their literature searching work and internet facility needed for their learning.

The text & reference books are available in the library for ready use of the learners to support their study.

### (h) Cost Estimate of the Programme and the provisions:

Income per student	Rs. 10,000	(In 1 years)
Expenditure per student	ts	(In 1 years)
Programme Development	t 600/-	
Programme Delivery	1,260/-	
Maintenance	600/-	
Total	2,060/-	

## (i) Quality Assurance Mechanism and Expected Programme Outcomes:

Quality assurance comprises the policies, procedures and mechanisms which that specified quality specifications and standards are maintained. Following methods are adopted for quality assurance.

S.No	Description	Туре
1	Student Assignment	Direct
2	Tests	Direct
3	University Examination	Direct
4	Student Feedback	Indirect

### **Expected Programme Outcomes**

The Post Graduate Diploma in Computer Application Programme will prepare its graduates to achieve:

1. The understanding to apply knowledge of computing and technological advances appropriate to the programme.

- 2. Skills to analyse a problem, and identify and define the logical modelling of solutions.
- 3. An ability to design, implement and evaluate a computer-based system, process, component, or programme to meet stakeholder needs.
- 4. The knack to function effectively in teams to accomplish a common goal.
- 5. A sense of professional, ethical, legal, security and social issues and responsibilities.
- 6. Effectiveness in communicating with a wide range of audiences.
- 7. An ability to analyse the local and global impact of business solutions on individuals, organisations, and society.
- 8. An identification of the need to engage in continuing professional development.

