

Full Stack–Integrated MCA

Integration: 4 Credits | 42 Hours | 3 Global Certifications | Fee: 70,000 INR per Semester

GJIMT offers a unique 4 Semester Integrated **MCA Program in Full Stack Engineering with Industry Shadow Projects & GSDC Certifications.**

Why you should do this Program:

- IKG-PTU compliant core MCA curriculum
 - Full Stack depth (Frontend + Backend + Cloud + DevOps)
 - Each semester → 1 Industry Shadow Project
 - GSDC certifications embedded (no add-on burden)
 - Capstone aligned with real industry problem statements
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SEMESTER 1

Foundation + Frontend Engineering

Core Focus:

Mathematical Foundations for Computing, Programming in C / Python, Computer Organization & Architecture, Data Structures, Professional Communication

Full Stack Skill Layer:

- Web Fundamentals: HTML5, CSS3, Responsive Design
- JavaScript (ES6+)
- Git & GitHub
- UI/UX fundamentals (Figma basics)

Benchmarked Shadow Project 1

(Amazon-Style E-Commerce Frontend)

Students develop the frontend layer of a scalable e-commerce platform, benchmarked against Amazon-like user flows.

Key Deliverables

- Product catalogue UI
- Search & filters
- Cart UI
- Git-based version control
- Deployed static frontend

Benchmark: Amazon Marketplace UI & UX patterns

SEMESTER 2

Backend Engineering + Databases

Core Focus

Object Oriented Programming, Database Management Systems, Operating Systems, Software Engineering

Full Stack Skill Layer

- Backend: Node.js / Spring Boot
- REST APIs
- SQL & NoSQL databases
- Authentication & Authorization

GSDC Certification – 1

GSDC Certified Full Stack Developer

Benchmarked Shadow Project 2

(Amazon-Style Full Stack Commerce Platform)

Students convert Semester-1 frontend into a complete production-grade full stack system.

Key Deliverables

- REST APIs
- Payment simulation
- Order & inventory management
- Role-based access
- Cloud-hosted backend

Benchmark: Amazon seller & order management systems

SEMESTER 3

Advanced Full Stack + Cloud

Core Focus:

Computer Networks, Web Technologies, Elective I (AI / Data Analytics / Cyber Security)

Full Stack Skill Layer

- React / Angular
- Cloud fundamentals (AWS/Azure/GCP)
- Docker basics
- CI/CD pipelines

GSDC Certification

GSDC Certified Cloud Computing Foundation

Benchmarked Shadow Project 3

(Meta-Style Social Collaboration Platform)

Students build a scalable social platform inspired by Meta/Facebook architectures.

Key Deliverables

- User feeds
- Media uploads
- Real-time notifications
- WebSocket-based chat
- Cloud deployment

Benchmark: Facebook / Instagram feed & interaction models

SEMESTER 4

Capstone + Enterprise Readiness

Core Focus:

- Major Project
- Seminar & Viva
- Elective II

Full Stack Skill Layer

- System design & architecture
- Microservices basics
- Performance & security
- Placement readiness

GSDC Certification – 3

GSDC Certified DevOps Practitioner

Benchmarked Capstone Project

(Uber / Microsoft-Style Cloud-Native Platform)

Students work on one enterprise-grade problem statement:

Examples:

- On-demand service marketplace (Uber-style)
- Cloud analytics dashboard (Microsoft BI-style)
- SaaS product MVP

Capstone Deliverables

- Architecture diagrams
- Production-ready code
- CI/CD pipeline
- Cloud deployment
- Client-style defence

JOB ROLES

- Full Stack Developer
- Software Development Engineer (SDE)
- Backend / Frontend Engineer
- Cloud Support Engineer
- DevOps Associate