

# INSTITUTE FOR PROFESSIONAL DEVELOPMENT (IPD)

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## **IPD 231 | IOS DEVELOPER PROGRAM | 0 quarter hours (Undergraduate)**

A 10-week certificate program covering iOS development for IT professionals and software developers. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

## **IPD 232 | FUNDAMENTALS OF R PROGRAM | 0 quarter hours (Undergraduate)**

A 6-week certificate program covering R language basics, packages and development environments. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

## **IPD 234 | CYBERSECURITY RISK MANAGEMENT PROGRAM | 0 quarter hours (Undergraduate)**

In this 10-week certificate program, participants devise an operational cybersecurity risk management strategy using the NIST Cybersecurity Framework for a cyber-physical system or a technology of their choice. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

## **IPD 235 | INCIDENT RESPONSE AND DIGITAL FORENSICS PROGRAM | 0 quarter hours (Undergraduate)**

An 8-week program covering the incident response life cycle, analysis methodology, and the handling of digital forensic evidence for cybersecurity personnel.

## **IPD 240 | ADVANCED PYTHON PROGRAM | 0 quarter hours (Undergraduate)**

A four-week certificate program covering principles of object-oriented design, design patterns, and meta-programming in the Python programming language. The program is designed for intermediate-level Python programmers. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 241 | ARTIFICIAL INTELLIGENCE FOR ENTERPRISE PROGRAM | 0 quarter hours (Undergraduate)**

An 11-week certificate program designed for IT professionals and business decision-makers who want to learn the fundamentals of artificial intelligence and be able to apply them to their business. The program covers an introduction to artificial intelligence, cognitive analytics, natural language processing, knowledge engineering, digital voice assistant, image/video recognition, robotics process automation, and augmented reality. The program will also cover different APIs that are used in industry relating to cloud and mobile technologies. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 242 | MACHINE LEARNING AND DEEP LEARNING PROGRAM | 0 quarter hours (Undergraduate)**

An 11-week certificate program focusing on machine learning, transfer learning, automated machine learning, and deep learning for data scientists, business analytics and other IT professionals. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 243 | DATA ANALYTICS WITH EXCEL AND TABLEAU PROGRAM | 0 quarter hours (Undergraduate)**

An 11-week certificate program covering Tableau and Microsoft Excel for statistical modeling and data analytics. This course will teach you to prepare for data for analysis, use various data analysis techniques, and present data in a visually-compelling way. It is geared towards business professionals who have basic skills in Excel. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 244 | ROBOTIC PROCESS AUTOMATION PROGRAM | 0 quarter hours (Undergraduate)**

An 11-week certificate program designed to help business and IT professionals understand how to accelerate efforts at transforming their businesses digitally using Robotic Process Automation (RPA). This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 245 | DATA VISUALIZATION WITH TABLEAU PROGRAM | 0 quarter hours (Undergraduate)**

A 5-week certificate program geared towards business and data professionals who wish to get an in-depth working knowledge of Tableau. Students will learn Tableau fundamentals and gain competency in working with data in Tableau. The program will also cover core visualizations, dashboard design, and best practices for visualizations. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 246 | WEB SERIES DEVELOPMENT PROGRAM | 0 quarter hours (Undergraduate)**

This 5-week certificate program explores the process of development and screenwriting of an independent short-form television series, otherwise known as web series. It is taught, in Spanish, in a workshop format based on the operation of a professional writers' room. The focus is pitching ideas, script development, and the revision of the different roles that make the writers' room a creative and dynamic environment. The program is open to college students with a firm grasp of the Spanish language, interested in the world of television. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

## **IPD 337 | ADVANCED DATA SCIENCE WITH PYTHON PROGRAM | 0 quarter hours (Undergraduate)**

An 11-week certificate program covering advanced data science techniques using Python and how to apply them in different domains. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

**IPD 338 | FUNDAMENTALS OF STATISTICS AND MACHINE LEARNING USING R PROGRAM | 0 quarter hours****(Undergraduate)**

A 10-week certificate program covering how to use R to apply fundamentals of statistical analysis and machine learning. The program is ideally suited for business professionals with basic statistical and computer literacy. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

**IPD 339 | AUTOMATED SOFTWARE TESTING PROGRAM | 0 quarter hours****(Undergraduate)**

A 10-week certificate program covering software testing strategies and tools and techniques for software test automation. The program is ideally suited for technical professionals with some programming experience. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on enrollment.

**IPD 341 | BIG DATA USING SPARK PROGRAM | 4 quarter hours****(Undergraduate)**

An 11-week program covering Apache Spark and how it fits with Big Data. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 342 | MODERN .NET WEB DEVELOPMENT PROGRAM | 4 quarter hours****(Undergraduate)**

A 10-week program for professional developers who wish to learn Web applications development using the latest Microsoft .NET technologies. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 343 | INTRODUCTION TO SQL PROGRAM | 1.5 quarter hours****(Undergraduate)**

A 2-week program on the fundamentals of Structured Query Language. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 345 | TECHNOLOGY AND INNOVATION | 4 quarter hours****(Undergraduate)**

A 10-week program designed to be a comprehensive study of the disciplines involved in the practical management of technology and innovation.

**IPD 346 | DATA SCIENCE FOR BUSINESS PROGRAM | 4 quarter hours****(Undergraduate)**

A ten-week certificate program covering data science and Big Data principles and techniques to support business decision-making. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 350 | IOS DEVELOPER PROGRAM | 10.00 quarter hours****(Undergraduate)**

In this course, we introduce the core issues associated with development for iOS mobile devices. Students learn a platform's IDE, frameworks, view, menu, controllers, graphics audio and more. Understanding the device's taps, touch, multi-touch, gestures, and accelerometers are just a few of the interactions the class will cover. User data interactions, internet conductivity, persistent storage and iCloud retrieval will be introduced. The course is designed to introduce the basics for business mobile applications..

**IPD 351 | BIG DATA AND NOSQL PROGRAM | 4 quarter hours****(Undergraduate)**

An 11-week certificate program covering popular NoSQL databases and how they fit with Big Data. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 355 | CLOUD COMPUTING TECHNOLOGIES PROGRAM | 4 quarter hours****(Undergraduate)**

An 11-week certificate program in the principles, methods, and technologies of Cloud Computing. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 356 | WEB DEVELOPMENT WITH JAVASCRIPT AND HTML5 PROGRAM | 4 quarter hours****(Undergraduate)**

An eight-week in-depth certificate program focused on user-centered Web development. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 360 | SQL SERVER BUSINESS INTELLIGENCE PROGRAM | 4 quarter hours****(Undergraduate)**

An 11-week in-depth certificate program covering database administration using Microsoft SQL Server. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 363 | SQL SERVER DATABASE ADMINISTRATION PROGRAM | 6 quarter hours****(Undergraduate)**

An 11-week in-depth certificate program covering database administration using Microsoft SQL Server. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll. (6 quarter hours)

**IPD 370 | ADVANCED SQL PROGRAM | 1.5 quarter hours****(Undergraduate)**

A two-week certificate program covering advanced SQL. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll. (1.5 quarter hours)

**IPD 440 | CAREER CHANGE PROGRAM | 0 quarter hours****(Graduate)**

A 26-week certificate program for career changers in technology. The program requires a separate application for admission and \$40 application fee. Enrollment is restricted. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for admission information.

**IPD 441 | BIG DATA USING SPARK PROGRAM | 4 quarter hours****(Graduate)**

An 11-week program covering Apache Spark and how it fits with Big Data. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 451 | BIG DATA AND NOSQL PROGRAM | 4 quarter hours****(Graduate)**

A 11-week certificate program covering popular NoSQL databases and how they fit with Big Data. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 460 | SQL SERVER BUSINESS INTELLIGENCE PROGRAM | 4 quarter hours****(Graduate)**

An 11-week in-depth certificate program covering Microsoft SQL Server analysis services, integration services, and reporting services. This program requires a separate application for admission and \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 463 | SQL SERVER DATABASE ADMINISTRATION PROGRAM | 4 quarter hours****(Graduate)**

An 11-week certificate program covering database administration using Microsoft SQL Server. This program requires a separate application for admission and a \$40 application fee. Please visit [IPD.CDM.DEPAUL.EDU](http://IPD.CDM.DEPAUL.EDU) for information on how to enroll.

**IPD 500 | TASTE OF COMPUTING PROFESSIONAL DEVELOPMENT | 4.5 quarter hours****(Graduate)**

The goals of this course are to: work collaboratively with peers to implement an inquiry-based curriculum in computer science; prepare to teach culturally-relevant foundational computing knowledge with concrete instructional strategies; and, develop a community of practice in the classroom with an interdisciplinary approach to problem-solving. (variable credit)