ROBOTIC PROCESS AUTOMATION PROGRAM

An 11-week program covering the principles, methods, and technologies of robotic process automation

DePaul University’s Robotic Process Automation Program aims to help professionals understand how to accelerate efforts at transforming their businesses digitally using Robotic Process Automation (RPA). RPA involves automating current business workflows—particularly those that are repetitive and manual in nature—with the help of soft “robots”. This results in a reduction in human involvement and an increase in efficiency, accuracy, and predictability. The use of RPA, along with other intelligent automation technologies, is already having a major global impact on how businesses drive value from automation and its adoption is expected to continue increasing rapidly. The program is suitable for any business or IT professionals who are new to RPA, and who are eager to deepen their understanding and expertise in this field and advance their careers.

The Robotic Process Automation Program presents a vendor-neutral viewpoint into understanding the different technologies and products available in the RPA marketplace to help both business leaders and IT professionals make strategic decisions and implement RPA in their organizations. Students will be given a broad understanding of the different leading RPA technologies along with the technical skills required to successfully automate their business processes. The program begins with an introduction to Robotic Process Automation and how business operations across industries can deliver elevated experiences and increase their bottom line through implementing RPA. The program then focuses on RPA concepts, use cases, and building different virtual bots. Topics also include various RPA tools, components, implementation, deployment, and monitoring. The later part of the program will explore how RPA can be extended using AI technologies, and how other emerging technologies like 5G and IoT will complement and enhance RPA.

The program consists of an effective mix of interactive lectures and extensive use of hands-on lab exercises. Students will build their own business process using different RPA platforms from commercial-level distributors such as UiPath, Automation Anywhere, Microsoft, etc. Lectures and demonstrations will be complemented by reading assignments, hands-on exercises, case studies, and projects. Students are required bring their own laptop (both Windows and Mac OS are acceptable) to every class session. Students should have full administrator rights to the computer they use for coursework. While access to most Cloud services explored in the program will be provided to students in class, there may be some Cloud services that are only accessible via the use of a student’s own credit card. Students should expect to spend a small fee to access these services.

YOU WILL BE ABLE TO:

• Describe the role of RPA within the broader scope of digital transformation
• Apply RPA and other relevant automation approaches to their business needs
• Review real-world scenarios that are optimized through the practical use of RPA
• Develop RPA applications using Cloud-based tools
• Gain real-world experience through lab work and a project to demonstrate the skills learned
# CURRICULUM

## INTRODUCTION TO DIGITAL TRANSFORMATION
Fundamentals on the digital technologies that are transforming our world. Understanding the process of using digital technologies to create new, or modify existing, business processes; changing work culture and customer experiences to meet changing business needs and market requirements.

## OVERVIEW OF ROBOTIC PROCESS AUTOMATION
Understand what technologies comprise RPA. Grasp the key benefits of RPA as well as the best practices that can help your organization succeed at both the process and enterprise level. A real-world context will be applied to the concepts, with case studies from global companies that have implemented RPA.

## RPA PRODUCT LANDSCAPE AND HANDS-ON EXPERIENCE WITH VARIOUS TOOLS
Overview of the major RPA companies and products. Several RPA products and tools will be introduced such as UiPath, Blue Prism, Automation Anywhere, and Microsoft UI Flows. Students will explore each vendor’s RPA tool that allows any organization to implement RPA technology into existing systems.

## HYPERAUTOMATION
What is meant by “hyperautomation”, or the use of a variety of intelligent automation technologies in a coordinated fashion, including RPA, artificial intelligence and machine learning, robotics, and other technologies.

## AI-POWERED RPA
Understand RPA as *attended automation*, with it structured inputs and logic, as opposed to artificial intelligence using *unattended automation* with unstructured inputs and developing its own logic. Introduction to the AI technologies that are used to together with, and complement, RPA.

## 5G AND IoT
Understand how 5G, with its better, faster, and cheaper delivery of information will further empower the automation process. Understand how the growth of IoT, with its generation of tremendous amounts of data, is impacting RPA and business processes.

# GENERAL INFORMATION

## ADMISSION
The program is suitable for any business or IT professionals who are new to Robotic Process Automation. An understanding of business processes and domain knowledge is required. Basic experience with a personal computer (running either Windows or Mac OS) is assumed.
FACILITIES

To promote the learning process, the Institute maintains special-purpose laboratories as well as dedicated classrooms equipped with state-of-the-art audio/visual equipment.

In addition, the college’s unique Course OnLine (COL) technology allows students to replay classes over the Internet. COL captures and replays several components of the classroom experience—audio, video, PC screen, and whiteboard—and incorporates them into one interface to provide an innovative rebroadcast system.

SCHEDULE

The Institute offers the program each quarter. Classes meet one evening per week. The option to take the program entirely online is also available.

FACULTY

The faculty consists of a team of instructors from the College of Computing and Digital Media and experts from industry. Faculty will be available throughout the program both in person and through electronic mail.
The college, through its School of Cinematic Arts, School of Computing, and its School of Design, offers a variety of programs at the undergraduate and graduate levels. Almost 4,000 students are enrolled in the college’s bachelor’s programs and more than 2,000 students are enrolled in the master’s and Ph.D. programs making the college’s graduate program one of the largest in the country. The college offers more than 400 courses each quarter, many in the evening, and primarily in the Loop and Lincoln Park Campuses. Most of the degree programs are also available exclusively online.

Offerings at the undergraduate level include:

- Animation B.A. / B.F.A.
- Computing B.A.
- Computer Science B.S.
- Cyber-Physical Systems Engineering B.S.
- Cybersecurity B.S.
- Data Science B.S.
- Film and Television B.A. / B.F.A.
- Game Design B.S.
- Game Programming B.S. Graphic Design B.F.A.
- Industrial Design M.F.A.
- Information Systems B.S.
- Information Technology B.S.
- Math and Computer Science B.S.
- Network Engineering and Security B.S.
- User Experience Design B.S.

Offerings at the graduate level include:

- Animation M.A.
- Business Information Technology M.S.
- Computational Finance M.S.
- Computer Science M.S.
- Cybersecurity M.S.
- Data Science M.S.
- Digital Communication and Media Arts M.A.
- Experience Design M.A.
- Film and Television M.S.
- Game Programming M.S.
- Health Informatics M.S.
- Human-Computer Interaction M.S.
- Information Systems M.S.
- Network Engineering and Security M.S.
- Product Innovation and Computing M.S.
- Software Engineering M.S.
- J.D./M.S. in Computer Science Technology

**Master’s of Fine Arts**

- Animation
- Creative Producing
- Documentary
- Film and Television Directing
- Game Design
- Screenwriting

**Ph.D. in Computer and Information Sciences**

- Ph.D. in Human Centered Design

**INSTITUTE FOR PROFESSIONAL DEVELOPMENT**

The Institute for Professional Development was formed by the college in 1984 to assist both individuals and businesses in keeping pace with the rapid development of computer technologies. The Institute currently offers a variety of intensive certificate programs in these areas:

- Advanced Data Science with Python
- Advanced Python
- Advanced SQL
- Artificial Intelligence for Enterprise
- Automated Software Testing
- Big Data and NoSQL
- Big Data Using Spark
- Cloud Computing Technologies
- Cybersecurity Risk Management
- DevOps
- Data Analytics with Excel and Tableau
- Data Science for Business
- Data Science: Programming with Python
- Fundamentals of Statistics and Machine Learning Using R
- Fundamentals of R
- Incident Response and Digital Forensics
- Introduction to SQL
- iOS Developer
- Machine Learning and Deep Learning
- Modern .NET Web Development
- SQL Server® Business Intelligence
- SQL Server® Database Administration
- Web Development with JavaScript and HTML5

**APPLICATION PROCEDURE:**

You do not have to be an existing DePaul student to take this certificate program. All interested parties must apply for admission. Prospective students may complete the online application and pay the (non-refundable) $40.00 application fee online during the application process. Alternatively, prospective students may print, complete and return the printable application via mail or email (ipd@cdm.depaul.edu), and mail the (non-refundable) $40.00 application fee (check or money order made payable to DEPAUL UNIVERSITY) to:

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