DIGITAL TRANSFORMATION
Training & Certification Guide

Arcitura® TRAINING — Digital Transformation

Arcitura® CERTIFIED — Digital Transformation Specialist

itcc

PCC — PROFESSIONAL CERTIFICATION COALITION

Pearson | VUE

OnVUE

Acclaim

Credly
by Pearson

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About the Digital Transformation Professional Academy

The Digital Transformation Professional Academy from Arcitura provides formal education and accreditation programs dedicated to industry-standard Digital Transformation. This extensive program encompasses a number of specialized tracks for IT professionals, each of which addresses a specific skillset for a common profession associated with Digital Transformation projects. Fields of practice covered by the Digital Transformation Professional Academy curriculum include Digital Transformation technology, architecture, data science, security and intelligent automation.

The Digital Transformation Professional Academy curriculum is comprised of 20 course modules and 9 certification tracks. Several of the certification tracks leverage courses in other Arcitura programs. Exams are available worldwide via Pearson VUE testing centers, as well as via Pearson VUE OnVue online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on required exam(s) achieves a certification for which a digital accreditation certificate is automatically issued by Arcitura and a digital certification badge is issued by Acclaim/Credly.

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HOW TO TAKE THIS COURSE

ARCITURA ELEARNING OPTIONS

To give you the most flexibility to achieve your learning goals and accommodate your preferences, this course is made available via two Arcitura eLearning solutions: An interactive environment with graded exercises and a graded self-test, as well as a study kit account that supports online/offline access and custom annotations.

To learn more, visit: www.arcitura.com/elearning

To enroll, visit: digital.arcitura.com/courses

ONSITE WORKSHOPS

Private onsite workshops can be delivered by Certified Trainers from Arcitura and authorized training partners for both small and large groups. Each workshop participant can receive access to the full Arcitura Digital eLearning course materials. Each workshop agenda, format and schedule can be tailored to client requirements.

To learn more, visit: www.arcitura.com/workshops

VIRTUAL WORKSHOPS

Private virtual workshops can be delivered by Certified Trainers for small and large groups, as well as individual participants. Workshop participants receive access to the course materials via the Arcitura Digital eLearning platform. Virtual workshop agendas can be tailored with greater flexibility to accommodate more distributed and fragmented training schedules.

To learn more, visit: www.arcitura.com/workshops

Several additional learning and exam preparation products and services are available, including coaching, exam prep kits and digital downloads. See the Training and Exam Preparation Resources page for details.
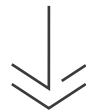
HOW TO GET STARTED

Welcome to the Digital Transformation course! This course is comprised of a set of modules. Each module has a set of lessons and is further supplemented with exercises to help reinforce your understanding of key topics. Upon completing the course, you can optionally proceed to prepare yourself for the certification exam (as explained on the *How to get Certified* page).

Additional resources are available to assist you with completing this course, including downloadable digital course files, printed course materials, coaching hours and instructor-led training services (as explained on the *Training and Exam Preparation Resources* page.)

Arcitura® CERTIFIED
Digital Transformation Specialist

A Certified Digital Transformation Specialist has an understanding of digital transformation as a formal field of practice, along with knowledge of associated impacts, processes, technologies and business models.

Module 01

Module 02

CERTIFICATION EXAM

Arcitura Certified
Digital Transformation Specialist

Arcitura Certified
Digital Transformation Specialist

Jane Smith
has successfully completed the requirements to be recognized as a certified Digital Transformation Specialist.

HONORS

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Digital Transformation
Specialist

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Specialist

HOW TO GET CERTIFIED

You can become a Certified Digital Transformation Specialist! This course can prepare you for the official Digital Transformation Specialist Certification exam, which can be taken worldwide at Pearson VUE testing centers, via Pearson VUE online proctoring and/or Arcitura direct proctoring.

Upon attaining a passing grade on the certification exam (and fulfilling any other prerequisite exam requirements) you will achieve the Digital Transformation Specialist Certification, after which you will automatically receive an official digital Accreditation Certificate and a digital Certification Badge from Acclaim/Credly with an account that supports the online verification of your certification status. Digital accreditation certificates and badges are free of charge.

Additional resources are available to assist you with preparing for the certification exam, including practice exam questions, downloadable digital course files, printed course materials, coaching hours and instructor-led training services (as explained on the *Training and Exam Preparation Resources* page.)

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Digital Transformation

The Digital Transformation course provides a clear understanding of Digital Transformation from both business and technical perspectives and further develop fundamental skills in Digital Transformation practices and technologies.
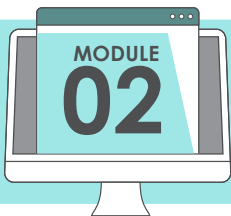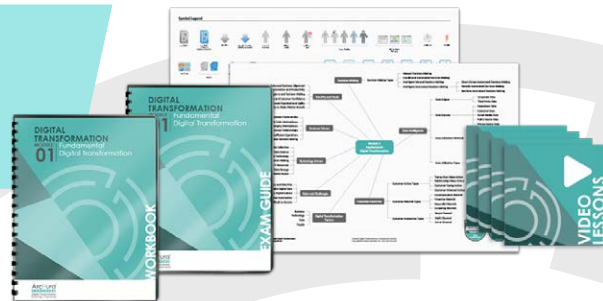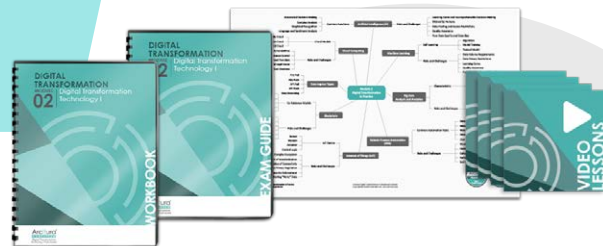
COURSE MODULE OUTLINES

The Digital Transformation course is comprised of the following course modules. Outlines for these course modules are provided on the subsequent pages.
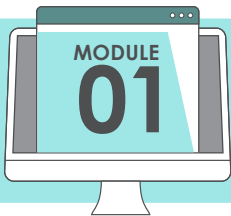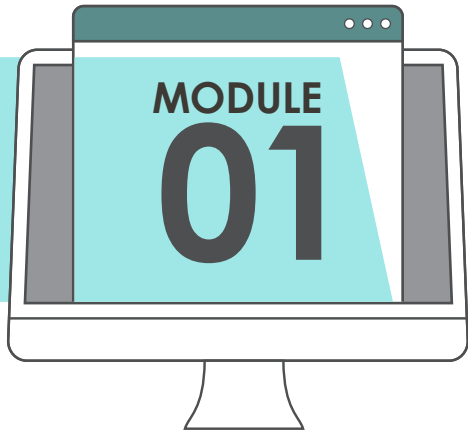
MODULE 01 — Fundamental Digital Transformation

MODULE 02 — Digital Transformation in Practice

Fundamental Digital Transformation
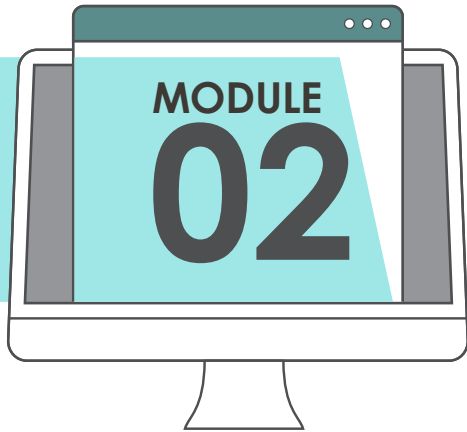
MODULE 01

This course module provides an easy-to-understand introduction to Digital Transformation and how it relates to business, technology, data and people. Coverage includes the benefits, risks and challenges of Digital Transformation, as well as its business and technology drivers.

Also explained are the characteristics of building customer-centric automation solutions, along with an insightful exploration of data intelligence origins, sources, methods and utilization types, as well as manual and automated intelligent decision-making delegated to humans and machines.

The following primary topics are covered:

- Understanding Digital Transformation
- Benefits of Digital Transformation
- Challenges of Digital Transformation
- Digital Transformation Business and Technology Drivers
- Understanding Customer-Centricity
- Product-Centric vs. Customer-Centric Relationships
- Relationship-Value Actions and Warmth
- Omni-Channel Customer Interactions
- Customer Journeys and Customer Data Intelligence
- Data Intelligence Basics
- Data Origins and Data Sources
- Data Collection Methods and Data Utilization Types
- Intelligent Decision-Making
- Computer-Assisted Manual Decision-Making and Conditional Automated Decision-Making
- Intelligent Manual Decision-Making vs. Intelligent Automated Decision-Making
- Direct-Driven Automated Decision-Making and Periodic Automated Decision-Making
- Realtime Automated Decision-Making

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Digital Transformation in Practice

MODULE 02

This course module delves into Digital Transformation automation environments by exploring the key contemporary technologies used to build Digital Transformation automation solutions, including AI, RPA, IoT, machine learning, blockchain, cloud computing and big data.

The module begins by establishing the basic forms of data ingress used to bring data into organizations for use by data science technologies that provide increased data intelligence to both human decision-makers and AI-driven solutions with automated decision-making capabilities.

After covering each of the primary Digital Transformation technologies, the module concludes with a comprehensive, step-by-step description of a business process as carried out by a customer-centric Digital Transformation solution.

The following primary topics are covered:

- Distributed Solution Design Basics
- Data Ingress Basics, including File Pull, File Push, API Pull, API Push and Data Streaming
- An Introduction to Digital Transformation Automation Technologies
- Cloud Computing Basics and Cloud Computing as part of Digital Transformation Solutions
- Common Cloud Computing Risks and Challenges
- Blockchain Basics and Blockchain as part of Digital Transformation Solutions
- Common Blockchain Risks and Challenges
- Internet of Things (IoT) Basics and IoT as part of Digital Transformation Solutions
- Common IoT Risks and Challenges
- Robotic Process Automation (RPA) and RPA as part of Digital Transformation Solutions
- Common RPA Risks and Challenges

- An Introduction to Digital Transformation Data Science Technologies
- Big Data and Data Analytics and Big Data as part of Digital Transformation Solutions
- Common Big Data Risks and Challenges
- Machine Learning Basics and Machine Learning as part of Digital Transformation Solutions
- Common Machine Learning Risks and Challenges
- Artificial Intelligence (AI) Basics and AI as part of Digital Transformation Solutions
- Common AI Risks and Challenges
- Inside a Customer-Centric Digital Transformation Solution (a comprehensive, step-by-step exploration)
- Mapping Individual Digital Transformation Technologies to Solution Processing
- Tracking how Data Intelligence is Collected and Used in a Digital Transformation Solution

TRAINING AND EXAM PREPARATION RESOURCES

You can supplement this course with a number of available resources to assist with both learning and exam preparation. Contact info@arcitura.com with any questions.

Certification Exam Prep Kit

A set of additional practice questions is available to support exam preparation.
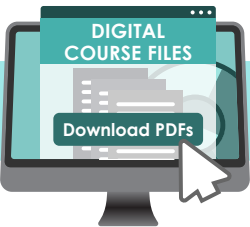
Digital Course Files

For each course you can order a set of downloadable digital course materials comprised of printable, watermarked workbook and poster PDF files.

Printed Course Materials

The printed workbooks and posters for each course can be ordered in B&W and full-color, and can be shipped worldwide.

One-on-One Coaching

Certified Trainers are available to provide online coaching on an hourly basis and in all time zones.

Instructor-Led Training

Certified Trainers are available to provide virtual and onsite training workshops for this and other Arcitura courses.

DIGITAL TRANSFORMATION PROFESSIONAL ACADEMY

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	COURSES → CERTIFICATIONS	Digital Transformation / Digital Transformation Specialist	Digital Transformation: Fundamental Technology / Digital Transformation Technology Professional	Digital Transformation: Advanced Technology & Architecture / Digital Transformation Technology Architect	Digital Transformation: Fundamental Data Science / Digital Transformation Data Science Professional	Digital Transformation: Advanced Data Science / Digital Transformation Data Scientist	Digital Transformation: Fundamental Security / Digital Transformation Security Professional	Digital Transformation: Advanced Security / Digital Transformation Security Specialist	Digital Transformation: Fundamental Intelligent Automation / Digital Transformation Intelligent Automation Professional	Digital Transformation: Advanced Intelligent Automation / Digital Transformation Intelligent Automation Specialist
MODULE 01	Fundamental Digital Transformation	●	○	○	○	○	○	○	○	○
MODULE 02	Digital Transformation in Practice	●	○	○	○	○	○	○	○	○
MODULE 03	Fundamental Cloud Computing		●	○						
MODULE 04	Fundamental Blockchain		●	○			●	○		
MODULE 05	Fundamental IoT		●	○						
MODULE 06	Cloud Architecture			●						
MODULE 07	Blockchain Architecture			●				●		
MODULE 08	IoT Architecture			●						
MODULE 09	Fundamental Big Data Analysis & Analytics				●	○				
MODULE 10	Fundamental Machine Learning				●	○				
MODULE 11	Fundamental AI				●	○				
MODULE 12	Advanced Big Data Analysis & Analytics					●				
MODULE 13	Advanced Machine Learning					●				
MODULE 14	Advanced AI					●				
MODULE 15	Fundamental Cybersecurity						●	○		
MODULE 16	Advanced Cybersecurity							●		
MODULE 17	Fundamental RPA								●	○
MODULE 18	Advanced RPA & Intelligent Automation									●
MODULE 19	Fundamental AI Decisioning								●	○
MODULE 20	Advanced AI Decisioning									●

Gray circles indicate prerequisite modules.

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Next-Gen IT Academy

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COURSES / CERTIFICATIONS	DevOps / DevOps Specialist	Blockchain Architecture / Blockchain Architect	IoT Architecture / IoT Architect	Cybersecurity / Cybersecurity Specialist	Robotic Process Automation / RPA Specialist	Digital Business Technology / Digital Business Technology Professional	Containerization Architecture / Containerization Architect	Quantum Computing / Quantum Computing Specialist
DevOps MODULE 01 — Fundamental DevOps	●							
DevOps MODULE 02 — DevOps in Practice	●							
DevOps MODULE 03 — DevOps Lab	●							
Blockchain MODULE 01 — Fundamental Blockchain		●						
Blockchain MODULE 02 — Blockchain Technology & Architecture		●						
Blockchain MODULE 03 — Blockchain Technology & Architecture Lab		●						
Internet of Things MODULE 01 — Fundamental IoT			●					
Internet of Things MODULE 02 — IoT Technology & Architecture			●					
Internet of Things MODULE 03 — IoT Technology & Architecture Lab			●					
Cybersecurity MODULE 01 — Fundamental Cybersecurity				●				
Cybersecurity MODULE 02 — Advanced Cybersecurity				●				
Cybersecurity MODULE 03 — Cybersecurity Lab				●				
Robotic Process Automation MODULE 01 — Fundamental RPA					●			
Robotic Process Automation MODULE 02 — Advanced RPA & Intelligent Automation					●			
Robotic Process Automation MODULE 03 — RPA Lab					●			
Digital Business Technology MODULE 01 — Business Automation Technology Overview						●		
Digital Business Technology MODULE 02 — Data Science Technology Overview						●		
Digital Business Technology MODULE 03 — Digital & Security Technology Overview						●		
Containerization MODULE 01 — Fundamental Containerization							●	
Containerization MODULE 02 — Containerization Technology & Architecture							●	
Containerization MODULE 03 — Containerization Technology & Architecture Lab							●	
Quantum Computing MODULE 01 — Fundamental Quantum Computing								●
Quantum Computing MODULE 02 — Advanced Quantum Computing								●
Quantum Computing MODULE 03 — Quantum Computing Lab								●

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COURSES	Big Data Analytics & Fundamental Data Science	Big Data Analysis & Advanced Data Science	Data Science Professional Consulting	Machine Learning	Artificial Intelligence	Big Data Engineering	Big Data Architecture	Data Science Governance	AI Decisioning
CERTIFICATIONS	Big Data Science Professional	Big Data Scientist	Data Science Consultant	Machine Learning Specialist	Artificial Intelligence Specialist	Big Data Engineer	Big Data Architect	Data Science Governance Specialist	AI Decisioning Specialist
MODULE 01 — Fundamental Big Data Science & Analytics	●	○	○			○	○	○	○
MODULE 02 — Big Data Analysis & Technology Concepts	●	○	○			○	○	○	○
MODULE 03 — Big Data Analysis & Technology Lab	●		○						
MODULE 04 — Big Data Analysis & Science		●							
MODULE 05 — Advanced Big Data Analysis & Science		●							
MODULE 06 — Big Data Analysis & Science Lab		●							
MODULE 07 — Fundamental Machine Learning			●	●					
MODULE 08 — Advanced Machine Learning				●					
MODULE 09 — Machine Learning Lab				●					
MODULE 10 — Fundamental Artificial Intelligence			●		●				
MODULE 11 — Advanced Artificial Intelligence					●				
MODULE 12 — Artificial Intelligence Lab					●				
MODULE 13 — Fundamental Big Data Engineering						●			
MODULE 14 — Advanced Big Data Engineering						●			
MODULE 15 — Big Data Engineering Lab						●			
MODULE 16 — Fundamental Big Data Architecture							●		
MODULE 17 — Advanced Big Data Architecture							●		
MODULE 18 — Big Data Architecture Lab							●		
MODULE 19 — Fundamental Data Science Governance for Big Data, Machine Learning & AI								●	
MODULE 20 — Advanced Data Science Governance for Big Data, Machine Learning & AI								●	
MODULE 21 — Data Science Governance Lab for Big Data, Machine Learning & AI								●	
MODULE 22 — Fundamental AI Decisioning									●
MODULE 23 — Advanced AI Decisioning									●
MODULE 24 — AI Decisioning Lab									●

Gray circles indicate prerequisite modules.

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COURSES	Cloud Computing	Cloud Computing Professional Consulting	Cloud Architecture	Cloud Security	Cloud Governance	Cloud Storage	Cloud Virtualization
CERTIFICATIONS	Cloud Technology Professional	Cloud Computing Consultant	Cloud Architect	Cloud Security Specialist	Cloud Governance Specialist	Cloud Storage Specialist	Cloud Virtualization Specialist
MODULE 01 Fundamental Cloud Computing	●	○	○	○	○	○	○
MODULE 02 Cloud Technology Concepts	●	○	○	○	○	○	○
MODULE 03 Cloud Technology Lab	●	○					
MODULE 04 Fundamental Cloud Architecture		●	●				
MODULE 05 Advanced Cloud Architecture			●				
MODULE 06 Cloud Architecture Lab			●				
MODULE 07 Fundamental Cloud Security		●		●			
MODULE 08 Advanced Cloud Security				●			
MODULE 09 Cloud Security Lab				●			
MODULE 10 Fundamental Cloud Governance					●		
MODULE 11 Advanced Cloud Governance					●		
MODULE 12 Cloud Governance Lab					●		
MODULE 13 Fundamental Cloud Storage						●	
MODULE 14 Advanced Cloud Storage						●	
MODULE 15 Cloud Storage Lab						●	
MODULE 16 Fundamental Cloud Virtualization							●
MODULE 17 Advanced Cloud Virtualization							●
MODULE 18 Cloud Virtualization Lab							●

Gray circles indicate prerequisite modules.

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SERVICE TECHNOLOGY SCHOOL

COURSES → / CERTIFICATIONS →	Fundamental Microservices & Service Technology — Microservice Professional	Fundamental SOA Design with Services & Microservices — SOA Professional	SOA Analysis & Modeling with Services & Microservices — SOA Analyst	SOA Design & Architecture with Services & Microservices — SOA Architect	Microservice Design & Architecture — Microservice Architect	Microservice Professional Consulting — Microservice Consultant	Service API Design & Management — Service API Specialist	Service Governance & Project Delivery — Service Governance Specialist	Security for Microservices & SOA — Service Security Specialist
MODULE 01 — Fundamental SOA, Services & Microservices	●	●	○	○	○	○	○	○	○
MODULE 02 — Microservice Technology Concepts	●			○	○	○	○		○
MODULE 03 — Design & Architecture with SOA, Services & Microservices		●	○	●				○	
MODULE 04 — Fundamental SOA Analysis & Modeling with Services & Microservices			●						
MODULE 05 — Advanced SOA Analysis & Modeling with Services & Microservices			●						
MODULE 06 — SOA Analysis & Modeling Lab with Services & Microservices			●						
MODULE 07 — Advanced SOA Design & Architecture with Services & Microservices				●					
MODULE 08 — SOA Design & Architecture Lab with Services & Microservices				●					
MODULE 09 — Fundamental Microservice Architecture & Containerization					●	●			
MODULE 10 — Advanced Microservice Architecture & Containerization					●				
MODULE 11 — Microservice Architecture & Containerization Lab					●				
MODULE 12 — Fundamental Service API Design & Management						●	●		
MODULE 13 — Advanced Service API Design & Management							●		
MODULE 14 — Service API Design & Management Lab							●		
MODULE 15 — Fundamental Service Governance & Project Delivery								●	
MODULE 16 — Advanced Service Governance & Project Delivery								●	
MODULE 17 — Service Governance & Project Delivery Lab								●	
MODULE 18 — Fundamental Security for Services, Microservices & SOA						●			●
MODULE 19 — Advanced Security for Services, Microservices & SOA									●
MODULE 20 — Security Lab for Services, Microservices & SOA									●

Gray circles indicate prerequisite modules.

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