Arcitura®
the IT education company

Course Catalog & Certification Programs
2024

itcc PCC PROFESSIONAL CERTIFICATION COALITION Pearson | VUE OnVUE acclaim Credly by Pearson

AI & CLOUD AI PROFESSIONAL ACADEMY

The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation programs dedicated to contemporary AI technology and practices, including predictive AI, generative AI and cloud-based AI, as well as AI engineering and architecture.

DIGITAL TRANSFORMATION PROFESSIONAL ACADEMY

The Digital Transformation Professional Academy from Arcitura provides formal education and accreditation programs dedicated to industry-standard Digital Transformation, including technology, architecture, data science, security and intelligent automation.

NEXT-GEN IT ACADEMY

The Next-Gen IT Academy from Arcitura provides formal education and accreditation programs focused on contemporary technologies and fields of practice, including:

/ Digital Business Technology
/ Robotic Process Automation (RPA)
/ Cybersecurity
/ Containerization
/ Internet of Things (IoT)
/ Blockchain
/ DevOps
/ Quantum Computing

NEXT-GEN DATA SCIENCE ACADEMY

The Next-Gen Data Science Academy from Arcitura provides formal education and accreditation programs dedicated to the fields of Artificial Intelligence, Machine Learning, Big Data and general Data Science, including analytics and analysis, decisioning, architecture, engineering and governance.

CLOUD COMPUTING SCHOOL

The Cloud Computing School from Arcitura provides formal education and accreditation programs dedicated to fields of practice associated with Cloud Computing, including technology architecture, security, governance and specialized areas of cloud technology.

SERVICE TECHNOLOGY SCHOOL

The Service Technology School from Arcitura provides formal education and accreditation programs dedicated to the fields of Microservices, Service APIs and SOA, including analysis, modeling, design, architecture, security and governance.

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SELF-STUDY

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.

ONLINE **COACHING**

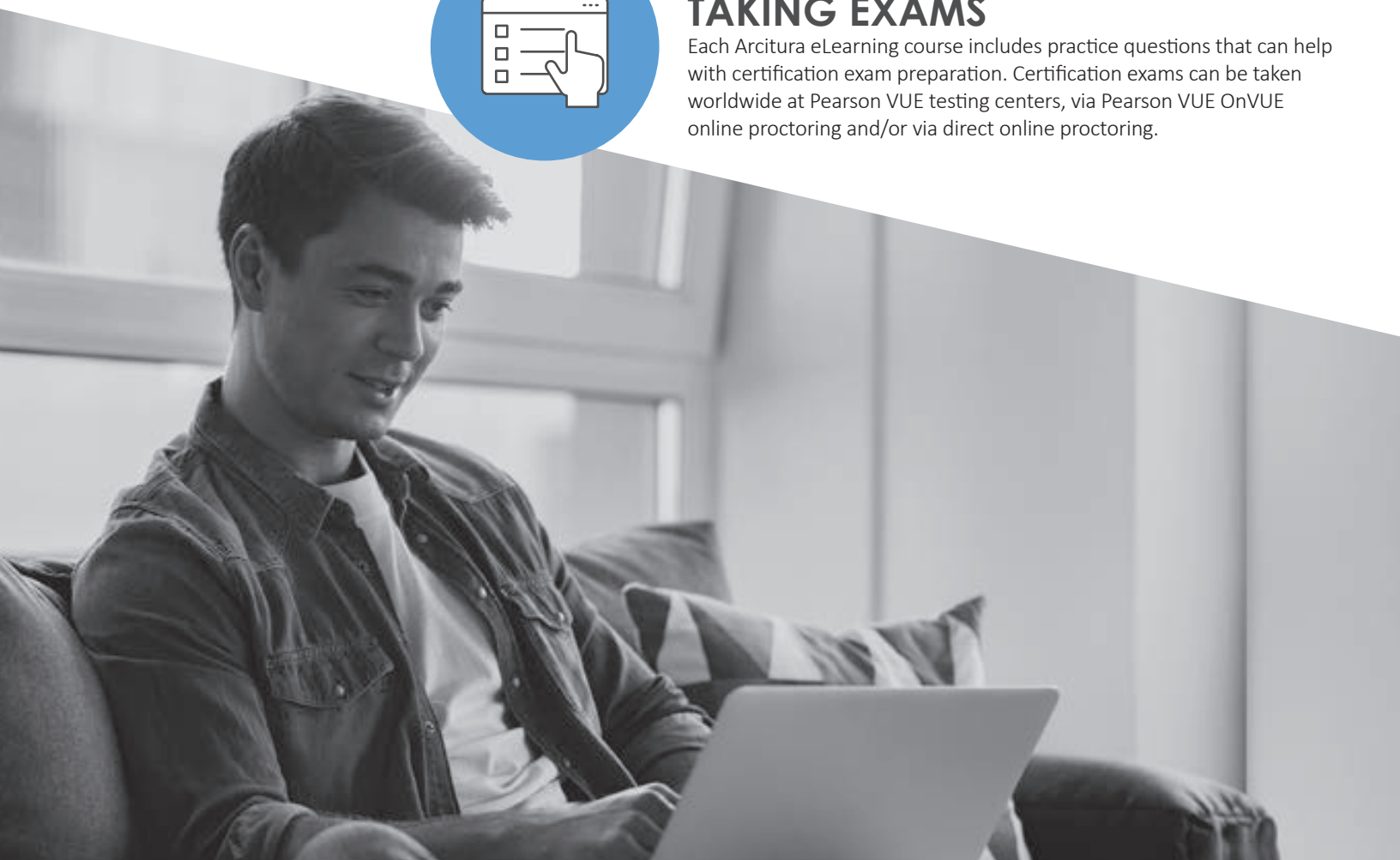
Arcitura Certified Trainers are available to provide online coaching services that can be scheduled on an hourly basis. Scheduling is available in all time zones and is based on your preferences and trainer availability.

ENHANCED SELF-STUDY WITH **ADD-ONs**

Arcitura eLearning courses can be supplemented with downloadable course files, printed course materials and other add-on resources.

EXAM PREPARATION & **TAKING EXAMS**

Each Arcitura eLearning course includes practice questions that can help with certification exam preparation. Certification exams can be taken worldwide at Pearson VUE testing centers, via Pearson VUE OnVUE online proctoring and/or via direct online proctoring.



WORKSHOPS

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 eLearning course materials. Each workshop agenda, format and schedule can be tailored to client requirements. Onsite workshops allow for the option to deliver onsite paper-based exams.

VIRTUAL **WORKSHOPS**

Private virtual workshops can be delivered by Certified Trainers from Arcitura and authorized training partners for small and large groups, as well as individual participants. Each workshop participant can receive access to the full Arcitura eLearning course materials. Each workshop agenda, virtual delivery platform and schedule can be tailored to client requirements. In addition to a typical delivery schedule based on consecutive workshop days, virtual workshops allow for a delivery schedule to be distributed as shorter sessions across weeks or months.

ONLINE **COACHING**

Arcitura Certified Trainers are available to provide online coaching services that can be scheduled on an hourly basis. Scheduling is available in all time zones and is based on your preferences and trainer availability. For workshop participants, coaching sessions can be scheduled during or after a given workshop, for groups or individuals.

EXAM PREPARATION & **TAKING EXAMS**

Onsite and virtual workshop participants can receive complimentary practice exam questions as part of their eLearning course accounts. Certified Trainers can supervise and provide guidance for participants completing the self-tests and the Exam Prep Kit practice questions provided in the eLearning accounts. Certification exams can be taken worldwide at Pearson VUE testing centers, via Pearson VUE OnVUE online proctoring and/or via direct online proctoring.

The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation dedicated to contemporary Artificial Intelligence (AI) practices and technologies.

The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation programs dedicated to contemporary AI technology and practices, including predictive AI, generative AI and cloud-based AI, as well as AI engineering and architecture. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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.

QUESTIONS?

Contact us at: info@arcitura.com

Arcitura® CERTIFIED *Predictive AI Specialist*

A Certified Predictive AI Specialist has gained a proven understanding of predictive AI practices and systems, including model training, learning techniques and neural networks.

Predictive AI Specialist COURSE 01 02 03

Arcitura® CERTIFIED *Generative AI Specialist*

A Certified Generative AI Specialist understands the training, utilization and management of generative AI systems, as well as related algorithms and models.

Generative AI Specialist COURSE 04 05 06

Arcitura® CERTIFIED *AI Engineer*

A Certified AI Engineer has proven knowledge of AI systems design, neural network engineering and engineering practices associated with a broad range of predictive AI and generative AI models and networks.

AI Engineer COURSE 01 04 07 08 09

Arcitura® CERTIFIED *AI Architect*

A Certified AI Architect has proven knowledge of predictive AI and generative AI systems technology architecture, implementation and infrastructure requirements, as well as integration techniques of both systems and supporting data management platforms.

AI Architect COURSE 01 04 10 11 12

Arcitura® CERTIFIED *AI Consultant*

A Certified AI Consultant has proven knowledge in the most important aspects of predictive AI and generative AI utilization, implementation and architecture.

AI Consultant COURSE 01 04 07 10

Arcitura® CERTIFIED *AI Chatbot Specialist*

A Certified AI Chatbot Specialist understands how and where AI-driven chatbot programs can be effectively utilized to establish a variety of human language interfaces and communication styles, as well as a range of proven design techniques for successfully integrating chatbot systems within organization enterprise environments.

AI Chatbot Specialist COURSE 13 14 15

Arcitura® CERTIFIED *NLP Engineer*

A Certified NLP Engineer has proven knowledge of natural language processing models and techniques, as well as a range of supporting applications, practices and models associated with establishing language and sentiment in conversational workflows.

NLP Engineer COURSE 16 17 18

Arcitura® CERTIFIED *Cloud AI Professional*

A Certified Cloud AI Professional has a proven understanding of cloud-based AI technology, infrastructure, automation and services, in support of model training, as well as AI system and data management.

Cloud AI Professional COURSE 19 20

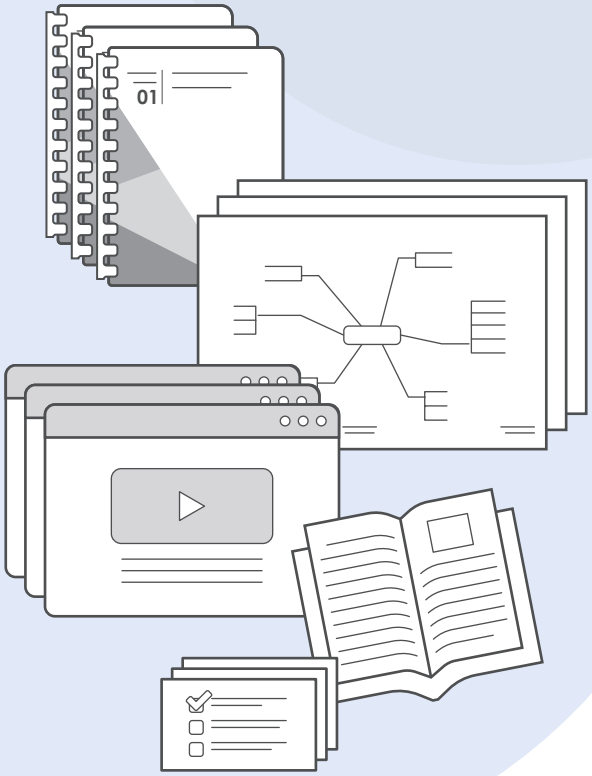
Arcitura® CERTIFIED *Cloud AI Architect*

A Certified Cloud AI Architect has in-depth, proven knowledge of AI-specific cloud architectural models, design patterns and infrastructure to help realize the design, implementation and integration of enterprise- grade, cloud-based AI solutions.

Cloud AI Architect COURSE 19 20 21 22 23

Arcitura® CERTIFIED

The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation dedicated to contemporary Artificial Intelligence (AI) practices and technologies.



Predictive AI

Provides essential coverage of predictive AI concepts, models and best practices. Common AI analysis and analytics practices are explored within a range of business scenarios, and in-depth coverage of predictive AI model training, learning and data filtering and processing techniques is provided.

Request this Guide

MODULE 01 | Fundamental Predictive AI

Illustrates how predictive AI can be used and applied in a range of business applications, as well as essential coverage of predictive AI practices and systems. The module explores the most common learning approaches and functional areas that AI systems are used for. All of the content is authored in easy-to-understand, plain English.

MODULE 02 | Advanced Predictive AI

Provides insight into how predictive AI systems work by exploring common techniques for learning, data processing and manipulation, and AI system performance management. The course module does not cover any mathematical formulas or programming and is intended for general IT professionals.

MODULE 03 | Predictive AI Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

Generative AI

Provides essential coverage of generative AI concepts, models, best practices, and neural networks, including Generative Adversarial Networks (GANs), Variational Encoders (VAEs) and Transformer models. The course is focused on exploring the application of generative AI within a range of business scenarios.

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MODULE 04 | Fundamental Generative AI

Explores the application of generative AI within a range of business scenarios and provides fundamental coverage of generative AI concepts, models, best practices and neural networks, including Generative Adversarial Networks (GANs), Variational Encoders (VAEs) and Transformer models. All of the content is authored in easyto- understand, plain English.

MODULE 05 | Advanced Generative AI

Covers a range of common generative AI networks, models and techniques, including specialized neural networks and practices for managing and optimizing generative AI systems and model training processes. The course module does not cover any mathematical formulas or programming and is intended for general IT professionals.

MODULE 06 | Generative AI Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

Arcitura TRAINING Generative AI

Arcitura CERTIFIED Generative AI Specialist

AI Engineering

Covers a range of fundamental and advanced AI engineering topics, including a neural network design, data preprocessing and feature engineering, model evaluation, validation and scaling, as well as predictive and generative AI models, explainability techniques and transfer learning.

Request this Guide

MODULE 01 | Fundamental Predictive AI

Illustrates how predictive AI can be used and applied in a range of business applications, as well as essential coverage of predictive AI practices and systems. The module explores the most common learning approaches and functional areas that AI systems are used for. All of the content is authored in easy-to-understand, plain English.

MODULE 04 | Fundamental Generative AI

Explores the application of generative AI within a range of business scenarios and provides fundamental coverage of generative AI concepts, models, best practices and neural networks, including Generative Adversarial Networks (GANs), Variational Encoders (VAEs) and Transformer models. All of the content is authored in easyto- understand, plain English.

MODULE 07 | Fundamental AI Engineering

Delves into a range of AI engineering practices and techniques, and further provides a detailed introduction of neural network architecture components. The course module establishes a step-by-step process for assembling an AI system, thereby illustrating how and when different practices and components of AI systems with neural networks need to be defined and applied. Finally, the module provides a set of key principles and best practices for AI projects.

MODULE 08 | Advanced AI Engineering

Covers a series of practices for preparing and working with data for training and running contemporary AI systems and neural networks. It further provides techniques for designing and optimizing neural networks, including approaches for measuring and tuning neural network model performance. The practices and techniques can be applied individually or in different combinations to address a range of common AI system problems and requirements.

MODULE 09 | AI Engineering Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

Arcitura TRAINING AI Engineering

Arcitura CERTIFIED AI Engineer

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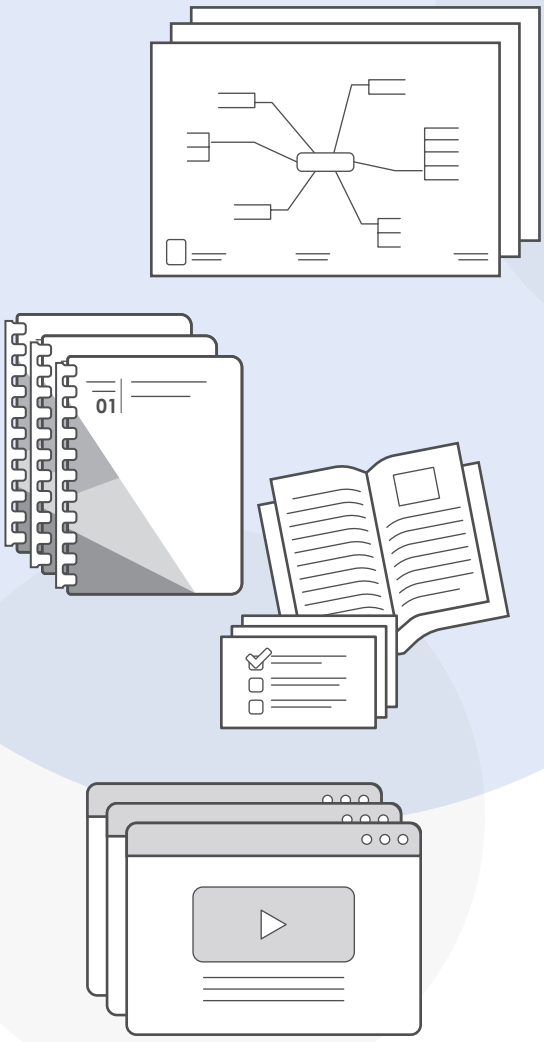
The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation dedicated to contemporary Artificial Intelligence (AI) practices and technologies.



AI Architecture & Design

Request this Guide

Covers fundamental and advanced AI systems and technology architecture topics, including design principles, distributed AI computing and scalability and reliability infrastructure, decision-making logic, performance optimization, security and enterprise architecture integration.

MODULE 01 | Fundamental Predictive AI

Illustrates how predictive AI can be used and applied in a range of business applications, as well as essential coverage of predictive AI practices and systems. The module explores the most common learning approaches and functional areas that AI systems are used for. All of the content is authored in easy-to-understand, plain English.

MODULE 04 | Fundamental Generative AI

Explores the application of generative AI within a range of business scenarios and provides fundamental coverage of generative AI concepts, models, best practices and neural networks, including Generative Adversarial Networks (GANs), Variational Encoders (VAEs) and Transformer models. All of the content is authored in easyto- understand, plain English.

MODULE 10 | Fundamental AI Architecture

Covers core frameworks and technology architecture and infrastructure of predictive and generative AI system implementations. The module includes coverage of neural networks processing requirements and computational considerations pertaining to AI system model training and production processing, as well as AI system data flow and processing optimization and scalability.

MODULE 11 | Advanced AI Architecture

Provides an exploration of different AI system architecture designs and addresses complex topics such as hyperparameter tuning and advanced optimization strategies for large-scale neural networks. The module also covers the intricacies of transfer learning and multi-modal AI systems, as well as distributed computing, explainability and adversarial robustness in AI models.

MODULE 12 | AI Architecture Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

AI Professional Consulting

Provides essential coverage of the most important and relevant topics associated with predictive AI, generative AI, as well as fundamental AI engineering and architecture. Also includes business case development techniques for AI projects and change management and AI adoption strategies.

Request this Guide

MODULE 01 | Fundamental Predictive AI

Illustrates how predictive AI can be used and applied in a range of business applications, as well as essential coverage of predictive AI practices and systems. The module explores the most common learning approaches and functional areas that AI systems are used for. All of the content is authored in easy-to-understand, plain English.

MODULE 04 | Advanced Predictive AI

Explores the application of generative AI within a range of business scenarios and provides fundamental coverage of generative AI concepts, models, best practices and neural networks, including Generative Adversarial Networks (GANs), Variational Encoders (VAEs) and Transformer models. All of the content is authored in easyto- understand, plain English.

MODULE 07 | Fundamental AI Engineering

Delves into a range of AI engineering practices and techniques, and further provides a detailed introduction of neural network architecture components. The course module establishes a step-by-step process for assembling an AI system, thereby illustrating how and when different practices and components of AI systems with neural networks need to be defined and applied. Finally, the module provides a set of key principles and best practices for AI projects.

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Arcitura TRAINING AI Professional Consulting

Arcitura CERTIFIED AI Consultant

AI Chatbot Concepts & Design

Covers concepts and technology related to AI-driven chatbot design and deployment, including natural language processing, conversational flows and dialogue systems, user intent recognition, Large Language Models (LLMs) and Transformer network text generation, sentiment analysis and dialogue management techniques.

Request this Guide

MODULE 13 | Fundamental AI Chatbot Concepts & Design

Introduces essential topics pertaining to how AIdriven chatbots function and how they can be utilized in real-world scenarios. Basic concepts are covered to establish the inner workings of chatbots and the different types of chatbots that are commonly used. Basic design approaches are introduced to illustrate how AI-driven chatbots can be integrated within an organization.

MODULE 14 | Advanced AI Chatbot Concepts & Design

Continues to delve into the technology and functionality of AI-driven chatbots by exploring more complex utilization scenarios, as well as more design approaches and back-end integration options.

MODULE 15 | AI Chatbot Concepts & Design Lab

Presents participants with a series of exercises and problems that are designed to test their ability to apply their knowledge of topics covered in previous modules. Completing this lab will further improve proficiency in AI-driven chatbot concepts, technologies and practices, as they are applied and combined to solve a series of real-world problems.

Arcitura TRAINING AI Chatbot Concepts & Design

Arcitura CERTIFIED AI Chatbot Specialist

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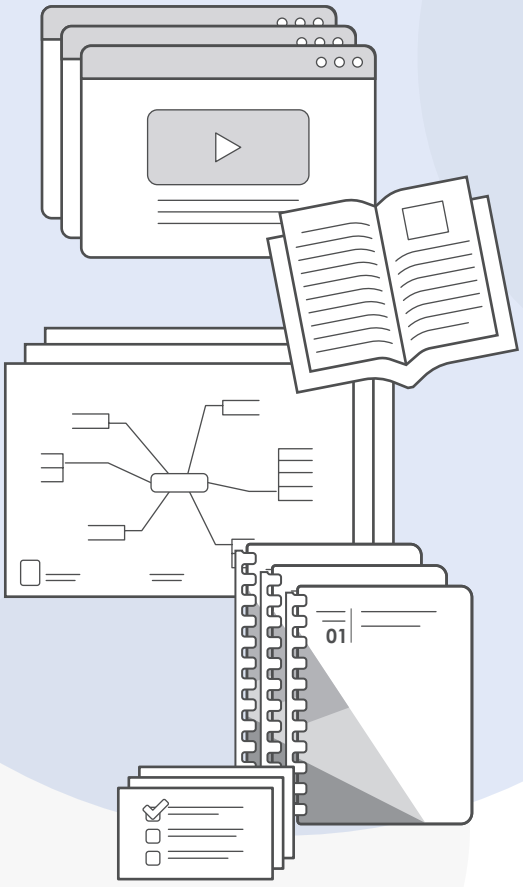
The AI & Cloud AI Professional Academy from Arcitura provides formal education and accreditation dedicated to contemporary Artificial Intelligence (AI) practices and technologies.



NLP Engineering

Provides in-depth coverage of natural language processing, NLP linguistics, text preprocessing and normalization and semantic analysis techniques, as well as Transformer models, sentiment analysis and emotion detection, dialogue systems and machine translation and transliteration.

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MODULE 16 | Fundamental NLP Engineering

Begins with an exploration of how NLP solutions can be used by businesses, as well as common associated challenges and risks. The module then continues with covering essential topics, such as NLP text processing, tokenization, stemming and lemmatization, as well as linguistic data preparation, common NLP models and libraries, and addressing bias and fairness concerns.

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MODULE 17 | Advanced NLP Engineering

Cover advanced topics, such as contextual embeddings, attention mechanisms, transformer models, as well as sequence-to-sequence models for tasks like summarization and translation. Also covered are methods for handling linguistic subtleties, sarcasm and ambiguity in natural language, and strategies to address challenges such as cross-lingual NLP and domain-specific language understanding.

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MODULE 18 | NLP Engineering Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

Arcitura TRAINING AI Engineering

Arcitura CERTIFIED AI Engineer

Cloud AI Technology & Automation

Provides essential coverage of concepts and technologies for cloud-based AI systems, including infrastructure resources for reliability and scaling, AI data management, AI system deployment models, using containerization with AI systems, cloud AI serverless architecture, as well as integration of AI services with cloud-native applications.

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MODULE 19 | Fundamental Cloud AI Technology & Automation

Focuses on cloud computing technology, infrastructure and practices specific to establishing and running cloudbased predictive AI and generative AI solutions. Topics include GPU and TPU for AI learning workloads, cloud-based AI services such as AWS SageMaker, Azure Machine Learning and Google AI Platform for model development, training and deployment, as well as mechanisms for scaling AI applications in the cloud, data storage and pipeline options.

MODULE 20 | Advanced Cloud AI Technology & Automation

Covers a range of advanced topics, including cloudbased AI model management, AI pipeline orchestration, optimization techniques, scaling and failover, MLOps, as well as multi-cloud and hybrid AI strategies. Also covered are cloud-based data pipeline services, including AWS Glue, Azure Data Factory and Google Dataflow.

Arcitura TRAINING Cloud AI Technology & Automation

Arcitura CERTIFIED Cloud AI Professional

Cloud AI Architecture

Covers the technology architecture of cloud-based AI systems, including cloud automation and infrastructure relevant to AI processing, serverless architectural models for AI, AI system monitoring, logging and auditing, AI in multi-cloud and hybrid architectures, as well as AI-related cloud services and infrastructure models.

Request this Guide

MODULE 19 | Fundamental Cloud AI Technology & Automation

Focuses on cloud computing technology, infrastructure and practices specific to establishing and running cloudbased predictive AI and generative AI solutions. Topics include GPU and TPU for AI learning workloads, cloud-based AI services such as AWS SageMaker, Azure Machine Learning and Google AI Platform for model development, training and deployment, as well as mechanisms for scaling AI applications in the cloud, data storage and pipeline options.

MODULE 20 | Advanced Cloud AI Technology & Automation

Covers a range of advanced topics, including cloudbased AI model management, AI pipeline orchestration, optimization techniques, scaling and failover, MLOps, as well as multi-cloud and hybrid AI strategies. Also covered are cloud-based data pipeline services, including AWS Glue, Azure Data Factory and Google Dataflow.

MODULE 21 | Fundamental Cloud AI Architecture & Design

Explores cloud-based architectural models and design patterns specific to predictive AI and generative AI applications, including the selection and configuration of specialized cloud AI infrastructure, AI-optimized compute instances and network topologies for data-intensive workloads, as well as strategies for integrating AI services within existing cloud environments. Topics also include the utilization of containerization and multi-clouds, as well as scalability, failover and security considerations.

MODULE 22 | Advanced Cloud AI Architecture & Design

Delves into complex architectural models and design patterns, as well as deployment strategies and optimization techniques for AI solutions. Topics covered include designing for high availability and fault tolerance in AI applications, implementing sophisticated data streaming architectures for real-time AI analytics, as well as exploring the utilization of containerization and microservices for AI systems.

MODULE 23 | Cloud AI Architecture & Design Lab

Provides a series of case-study driven, lab-style exercises and problems that are designed to test your ability to apply your knowledge of topics covered in previous modules. Completing this lab helps reinforce understanding of preceding topics and further demonstrates how different practices and technologies can be applied together as part of greater solutions.

Arcitura TRAINING Cloud AI Architecture & Design

Arcitura CERTIFIED Cloud AI Architect

Arcitura® CERTIFIED

The Digital Transformation Professional Academy from Arcitura provides formal education and accreditation programs dedicated to industry-standard Digital Transformation.

The Digital Transformation Professional Academy curriculum is comprised of 20 course modules and 9 certification tracks. 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.

Several of the certification tracks leverage course modules in other Arcitura programs. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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.

QUESTIONS?
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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.

Arcitura® CERTIFIED *Digital Transformation Technology Professional*

A Certified Digital Transformation Technology Professional has essential knowledge of the core digital transformation technologies and further understands how these technologies can be positioned and utilized in relation to each other as part of greater digital solutions and enterprise environments.

Arcitura® CERTIFIED *Digital Transformation Technology Architect*

A Certified Digital Transformation Technology Architect has detailed knowledge of the technology architectures behind the core technologies essential to digital solutions and digital enterprises.

Arcitura® CERTIFIED *Digital Transformation Data Science Professional*

A Certified Digital Transformation Data Science Professional has an understanding of essential concepts, techniques and models associated with modern data science practices, including big data, machine learning and artificial intelligence.

Arcitura® CERTIFIED *Digital Transformation Data Scientist*

A Certified Digital Transformation Data Scientist has detailed knowledge of modern data science analytics and analysis practices, including those associated with big data, machine learning and artificial intelligence, and further understands how these practices can be utilized as part of a digital enterprise.

Arcitura® CERTIFIED *Digital Transformation Security Professional*

A Certified Digital Transformation Security Professional has an understanding of technology cyber threats, contemporary cybersecurity and blockchain technologies, as well as modern security controls and counter-measures relevant to digital solution environments.

Arcitura® CERTIFIED *Digital Transformation Security Specialist*

A Certified Digital Transformation Security Specialist has a detailed understanding of cybersecurity threats, countermeasures and practices, as well as knowledge of establishing controls for the protection of data and digital assets, including the use of blockchain immutable storage technology.

Arcitura® CERTIFIED *Digital Transformation IA Professional*

A Certified Digital Transformation IA Professional has knowledge of artificial intelligence (AI) techniques, practices and learning methods together with technologies, business automation models and integration options provided by robotic process automation (RPA).

Arcitura® CERTIFIED *Digital Transformation IA Specialist*

A Certified Digital Transformation IA Specialist has an understanding of how to design intelligent automation solutions comprised of robotic process automation (RPA) and artificial intelligence (AI) systems.

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Digital Transformation courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Digital Transformation

Request this Guide

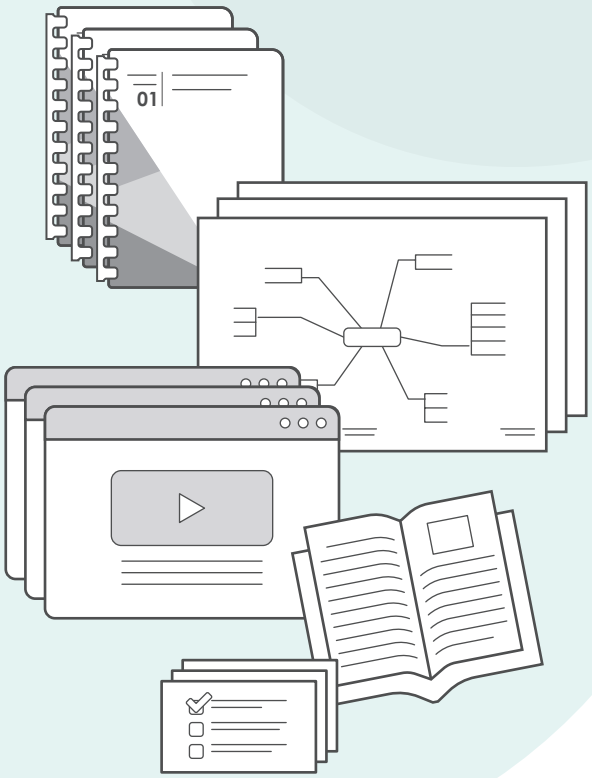
Provides a clear understanding of Digital Transformation from both business and technical perspectives and further develop fundamental skills in Digital Transformation practices and technologies.

MODULE 01 | Fundamental Digital Transformation

Introduces Digital Transformation and provides detailed coverage of associated practices, models and technologies, along with coverage of Digital Transformation benefits, challenges and business and technology drivers. Also explained are common Digital Transformation domains, digital capabilities and adoption considerations.

MODULE 02 | Digital Transformation in Practice

Delves into the application of Digital Transformation by exploring a series of contemporary technologies associated with carrying out Digital Transformation projects and further demonstrating how the adoption of Digital Transformation practices and technologies can lead to business process improvements and optimization.



Digital Transformation: Fundamental Technology

Provides essential coverage of primary Digital Transformation technologies and develop skills associated with their application.

Request this Guide

MODULE 03 | Fundamental Cloud Computing

Provides end-to-end coverage of fundamental Cloud Computing topics relevant to Digital Transformation, including an exploration of technology-related topics that pertain to contemporary Cloud Computing platforms.

MODULE 04 | Fundamental Blockchain

Provides a clear, end-to-end understanding of how Blockchain works. It breaks down Blockchain technology and architecture in easy-to-understand concepts, terms and building blocks. Industry drivers and impacts of Blockchain are explained, followed by plain English descriptions of each primary part of a Blockchain system and step-by-step descriptions of how these parts work together.

MODULE 05 | Fundamental IoT

Covers the essentials of the field of Internet of Things (IoT) from both business and technical aspects. Fundamental IoT use cases, concepts, models and technologies are covered in plain English, along with introductory coverage of IoT architecture and IoT messaging with REST, HTTP and CoAp.

Digital Transformation: Advanced Technology & Architecture

Drills-down into the technology architecture and inner workings of primary Digital Transformation technologies and develop skills associated with their application.

Request this Guide

MODULE 06 | Cloud Architecture

Provides a technical drill-down into the inner workings and mechanics of foundational Cloud Computing platforms. Private and public cloud environments are dissected into concrete, componentized building blocks that individually represent platformv feature-sets, functions and/or artifacts, and are collectively applied to establish distinct technology architecture layers. Building upon these foundations, SaaS, PaaS and IaaS environments are further explored.

MODULE 07 | Blockchain Architecture

Delves into Blockchain technology architecture and the inner workings of blockchains by exploring a series of key design patterns, techniques and related architectural models, along with common technology mechanisms used to customize and optimize Blockchain application designs in support of fulfilling business requirements.

MODULE 08 | IoT Architecture

Provides a drill-down into key areas of IoT technology architecture and enabling technologies by breaking down IoT environments into individual building blocks via design patterns and associated implementation mechanisms. Layered architectural models are covered, along with design techniques and feature-sets covering the processing of telemetry data, positioning of control logic, performance optimization, as well as addressing scalability and reliability concerns.

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Arcitura® CERTIFIED

Digital Transformation courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Digital Transformation: Fundamental Data Science

Provides comprehensive coverage of contemporary data science and analysis practices and technology essential to Digital Transformation.

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MODULE 09 | Fundamental Big Data Analysis & Analytics

Provides an overview of essential Big Data science topics and explores a range of the most relevant contemporary analysis practices, technologies and tools for Big Data environments. Topics include common analysis functions and features offered by Big Data solutions, as well as an exploration of the Big Data analysis lifecycle.

MODULE 10 | Fundamental Machine Learning

Provides an easy-to-understand overview of Machine Learning that explains how it works, what it can and cannot do and how it is commonly utilized in support of business goals. The module covers common algorithm types and further explains how Machine Learning systems work behind the scenes.

MODULE 11 | Fundamental AI

Provides essential coverage of Artificial Intelligence and neural networks in easy-to-understand, plain English. The course module provides concrete coverage of the primary parts of AI, including learning approaches, functional areas that AI systems are used for and a thorough introduction to neural networks, how they exist, how they work and how they can be used to process information. The module further establishes a step-by-step process for assembling an AI system.

Arcitura TRAINING Digital Transformation Fundamental Data Science

Arcitura CERTIFIED Digital Data Science Professional

Digital Transformation: Advanced Data Science

Delves into the practical application of contemporary data science techniques and algorithms.

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MODULE 12 | Advanced Big Data Analysis & Analytics

Provides an in-depth overview of essential and advanced topic areas pertaining to data science and analysis techniques relevant and unique to Big Data with an emphasis on how analysis and analytics need to be carried out individually and collectively in support of the distinct characteristics, requirements and challenges associated with Big Data datasets.

MODULE 13 | Advanced Machine Learning

Delves into the many algorithms, methods and models of contemporary Machine Learning practices to explore how a range of different business problems can be solved by utilizing and combining proven Machine Learning techniques.

MODULE 14 | Advanced AI

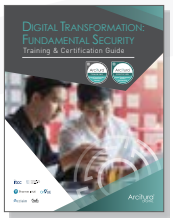
Covers a series of practices for preparing and working with data for training and running contemporary AI systems and neural networks. It further provides techniques for designing and optimizing neural networks, including approaches for measuring and tuning neural network model performance.

Arcitura TRAINING Digital Transformation Advanced Data Science

Arcitura CERTIFIED Digital Transformation Data Scientist

Digital Transformation: Fundamental Security

Provides in-depth coverage of security concepts, technologies and practices essential to Digital Transformation.



Request this Guide

MODULE 04 | Fundamental Blockchain

Provides a clear, end-to-end understanding of how Blockchain works. It breaks down Blockchain Security and architecture in easy-to-understand concepts, terms and building blocks. Industry drivers and impacts of Blockchain are explained, followed by plain English descriptions of each primary part of a Blockchain system and step-by-step descriptions of how these parts work together.

MODULE 15 | Fundamental Cybersecurity

Covers essential topics for understanding and applying cybersecurity solutions and practices. The course begins by covering basic aspects of cybersecurity and then explains foundational parts of cybersecurity environments, such as frameworks, metrics and the relationship between cybersecurity and data science technology.

Arcitura TRAINING Digital Transformation Fundamental Security

Arcitura CERTIFIED Digital Transformation Security Professional

Digital Transformation: Fundamental Intelligent Automation

Provides fundamental coverage of artificial intelligent (AI) and robotic process automation (RPA) concepts, technologies and practices associated with intelligent automation (IA).

Request this Guide

MODULE 17 | Fundamental RPA

Establishes the components and models that comprise contemporary robotic process automation (RPA) environments. Different types of RPA bots are explained, along with different RPA architectures and bot utilization models. This course module further provides detailed scenarios that demonstrate different deployments of RPA bots and other components in relation to different business automation requirements.

MODULE 19 | Fundamental AI Decisioning

Covers essential topics pertaining to AI systems, neural networks and data processing, with an emphasis on autonomous decision-making capability-enablement. Topics include risk assessment, reinforcement learning, decision-result evaluation, ethics and behavior control.

Arcitura TRAINING Digital Transformation Fundamental IA

Arcitura CERTIFIED Digital Transformation IA Professional

Digital Transformation: Advanced Security

Covers advanced Cybersecurity and Blockchain topics essential to building contemporary Digital Transformation solutions.

Request this Guide

MODULE 07 | Blockchain Architecture

Delves into Blockchain Security architecture and the inner workings of blockchains by exploring a series of key design patterns, techniques and related architectural models, along with common Security mechanisms used to customize and optimize Blockchain application designs in support of fulfilling business requirements.

MODULE 16 | Advanced Cybersecurity

Delves into the building blocks of cybersecurity solution environments and further explores the range of cyber threats that cybersecurity solutions can be designed to protect organizations from. The module establishes a set of cybersecurity technology mechanisms that represent the common components that comprise cybersecurity solutions and further explores formal processes and procedures used to establish sound practices that utilize the mechanisms.

Arcitura TRAINING Digital Transformation Advanced Security

Arcitura CERTIFIED Digital Transformation Security Specialist

Digital Transformation: Advanced Intelligent Automation

Covers advanced AI and RPA topics to explore the creation of integrated intelligent automation environments.

Request this Guide

MODULE 18 | Advanced RPA & Intelligent Automation

Explores the relationship between RPA and AI and describes how these technologies can be combined to establish intelligence automation (IA) environments utilizing RPA bots and autonomous decision-making solutions using AI decisioning technology.

MODULE 20 | Advanced AI Decisioning

Covers advanced topics, such as knowledge representation, rules of inference, probabilistic reasoning and First-Order Logic (FOL) and documents a series of AI practices as applied to autonomous decision-making, including reasoning, data wrangling, reinforcement learning and model evaluation and optimization.

Arcitura TRAINING Digital Transformation Advanced IA

Arcitura CERTIFIED Digital Transformation IA Specialist

Arcitura® CERTIFIED

Next-Gen IT certifications are formal accreditations that prove proficiency in contemporary fields of practice and modern IT technologies.

The Next-Gen IT Academy curriculum is comprised of 24 course modules and 8 certification tracks. For each topic area covered within the program, a set of 3 course modules is developed, along with a single exam. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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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Arcitura® CERTIFIED *DevOps Specialist*

A Certified DevOps Specialist understands the DevOps process stages, techniques and models to successfully apply DevOps in support of achieving project objectives and realizing business goals.

Arcitura® CERTIFIED *Blockchain Architect*

A Certified Blockchain Architect understands the concepts, models and technology architecture behind Blockchain solutions for both public and private use, including the utilization of immutable data storage and consensus processing.

Arcitura® CERTIFIED *IoT Architect*

A Certified IoT Architect has knowledge of the devices, technologies, and protocols used to build IoT solutions, and has gained an understanding of different IoT architecture layers and models, as well as associated technology mechanisms.

Arcitura® CERTIFIED *Cybersecurity Specialist*

A Certified Cybersecurity Specialist has an understanding of common cybersecurity threats, as well as the technologies and practices used to counter and prevent cyber-attacks, including the investigation of suspicious online activity and the hardening and protection of digital assets.

Arcitura® CERTIFIED *RPA Specialist*

A Certified RPA Specialist has an understanding of RPA bots, design practices and business automation models and further has knowledge of how RPA solutions can incorporate artificial intelligence systems to establish intelligent automation environments.

Arcitura® CERTIFIED *Digital Business Technology Professional*

A Certified Digital Business Technology Professional has an understanding of the purpose, benefits and challenges of contemporary digital business automation and data science technologies as they may relate to businesses pursuing their adoption.

Arcitura® CERTIFIED *Containerization Architect*

A Certified Containerization Architect has an understanding of containerization technology architecture, as well as the inner workings of containers, including the utilization of container engines, templates and management solutions.

Arcitura® CERTIFIED *Quantum Computing Specialist*

A Certified Quantum Computing Specialist has knowledge of concepts, architectural models and infrastructure components of quantum computing technology environments, as well as how they can be utilized to support business automation.

Arcitura® CERTIFIED

Next-Gen IT courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

DevOps

Develops skills in DevOps practices, processes, metrics and models.

Request this Guide

MODULE 01 | Fundamental DevOps

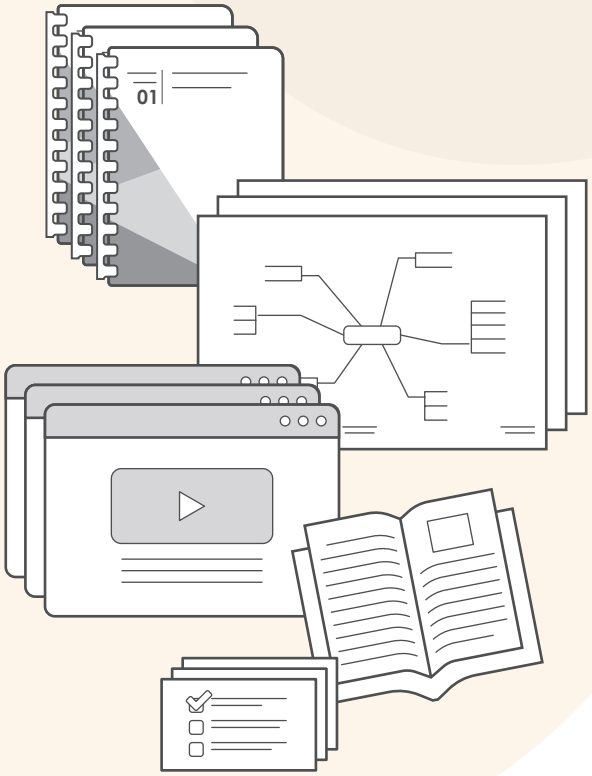
A comprehensive overview of DevOps practices, models and techniques, along with coverage of DevOps benefits, challenges and business and technology drivers. Also explained is how DevOps compares to traditional solution development and release approaches and how the application of DevOps can be monitored and measured for concrete business value.

MODULE 02 | DevOps in Practice

A course module that delves into the application of DevOps practices and models by exploring how the DevOps lifecycle and its associated stages can be carried out and further identifying related challenges and considerations. In-depth coverage is provided for the application of Continuous Integration (CI) and Continuous Delivery (CD) approaches, along with an exploration of creating deployment pipelines and managing data flow, solution versions and tracking solution dependencies.

MODULE 03 | DevOps Lab

Provides a series of real-world exercises for applying DevOps practices and carrying out DevOps processes and related techniques to address requirements and solve problems.



Blockchain Architecture

Develops skills in Blockchain functions, architectural models, technology and security.

Request this Guide

MODULE 01 | Fundamental Blockchain

Provides a clear, end-to-end understanding of how Blockchain works. It breaks down Blockchain technology and architecture in easy-to-understand concepts, terms and building blocks. Industry drivers and impacts of Blockchain are explained, followed by plain English descriptions of each primary part of a Blockchain system and step-by-step descriptions of how these parts work together.

MODULE 02 | Blockchain Technology & Architecture

Delves into Blockchain technology architecture and the inner workings of blockchains by exploring a series of key design patterns, techniques and related architectural models, along with common technology mechanisms used to customize and optimize Blockchain application designs in support of fulfilling business requirements.

MODULE 03 | Blockchain Technology & Architecture Lab

Provides a series of exercises for applying and combining Blockchain technologies, mechanisms and security controls to solve real-world problems.

Arcitura TRAINING Blockchain

Arcitura TRAINING Blockchain Architecture

Arcitura CERTIFIED Blockchain Architect

IoT Architecture

Develops skills in Internet of Things (IoT) technology and architecture, along with proficiency in radio protocols, telemetry messaging and IoT architecture layers.

Request this Guide

MODULE 01 | Fundamental IoT

Covers the essentials of the field of Internet of Things (IoT) from both business and technical aspects. Fundamental IoT use cases, concepts, models and technologies are covered in plain English, along with introductory coverage of IoT architecture and IoT messaging with REST, HTTP and CoAp.

MODULE 02 | IoT Technology & Architecture

Provides a drill-down into key areas of IoT technology architecture and enabling technologies by breaking down IoT environments into individual building blocks via design patterns and associated implementation mechanisms. Layered architectural models are covered, along with design techniques and feature-sets covering the processing of telemetry data, positioning of control logic, performance optimization, as well as addressing scalability and reliability concerns.

MODULE 03 | IoT Technology & Architecture Lab

Provides a series of exercises for applying and combining IoT concepts, technologies, architecture models and devices to solve real-world problems.

Arcitura TRAINING Internet of Things

Arcitura TRAINING IoT Architecture

Arcitura CERTIFIED IoT Architect

CONTINUED

Arcitura® CERTIFIED

Next-Gen IT courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Cybersecurity

Develops an understanding of common cyber security threats and vulnerabilities and further develop skills in the technologies and practices used to prevent and counter cyber-attacks.

Request this Guide

MODULE 01 | Fundamental Cybersecurity

Covers essential topics for understanding and applying cybersecurity solutions and practices. The module begins by covering basic aspects of cybersecurity and then explains foundational parts of cybersecurity environments, such as frameworks, metrics and the relationship between cybersecurity and data science technology.

MODULE 02 | Advanced Cybersecurity

Delves into the building blocks of cybersecurity solution environments and further explores the range of cyber threats that cybersecurity solutions can be designed to protect organizations from. The module establishes a set of cybersecurity technology mechanisms that represent the common components that comprise cybersecurity solutions and further explores formal processes and procedures used to establish sound practices that utilize the mechanisms.

MODULE 03 | Cybersecurity Lab

Provides a series of exercises for applying and combining Cybersecurity technologies and practices to solve real-world problems.

Robotic Process Automation (RPA)

Develops skills in RPA technologies, practices and business process automation models.

Request this Guide

MODULE 01 | Fundamental RPA

Establishes the components and models that comprise contemporary robotic process automation (RPA) environments. Different types of RPA bots are explained, along with different RPA architectures and bot utilization models. This course module further provides detailed scenarios that demonstrate different deployments of RPA bots and other components in relation to different business automation requirements.

MODULE 02 | Advanced RPA & Intelligent Automation

Explores the relationship between RPA and AI and describes how these technologies can be combined to establish intelligence automation (IA) environments utilizing RPA bots and autonomous decision-making solutions using AI decisioning technology.

MODULE 03 | RPA Lab

Provides a series of real-world exercises for applying and combining RPA models and practices to build RPA solutions for common usage scenarios.

Digital Business Technology

Request this Guide

Provides easy-to-understand, fundamental coverage of a broad range of contemporary IT technologies and associated IT practices. Coverage is intentionally non-technical and limited to explaining the strategic purpose and significance of each technology as it may relate to an organization's business operations. Topics include Digital Transformation Solutions, Artificial Intelligence (AI), Robotic Process Automation (RPA), Cloud Computing, Blockchain, Internet of Things (IoT), Machine Learning, Big Data and Cybersecurity.

MODULE 01 | Business Automation Technology Overview

Provides introductory, non-technical coverage of Cloud Computing, Robotic Process Automation (RPA) and the Internet of Things (IoT) with an emphasis on the drivers, benefits, goals, risks and challenges of these technologies.

MODULE 02 | Data Science Technology Overview

Provides introductory, non-technical coverage of Big Data, Machine Learning and Artificial Intelligence (AI) with an emphasis on the drivers, benefits, goals, risks and challenges of these technologies.

MODULE 03 | Digital & Security Technology Overview

Provides introductory, non-technical coverage of Digital Transformation, Blockchain and Cybersecurity with an emphasis on the drivers, benefits, goals, risks and challenges of these technologies.

Containerization Architecture

Request this Guide

Develops skills in containerization technology and architecture, along with proficiency in assessing, designing and securing highly available container-hosted services and solutions.

MODULE 01 | Fundamental Containerization

Provides comprehensive coverage of Containerization models, technologies, mechanisms and environments. How the utilization of containers impacts both the technology and business of an organization is covered, along with many technical features, characteristics and deployment environments.

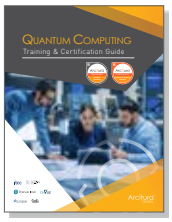
MODULE 02 | Containerization Technology & Architecture

Provides a deep-dive into Containerization architectures, hosting models, deployment models and utilization by services and applications. Numerous advanced topics are covered, including high performance requirements, clustering, security and lifecycle management.

MODULE 03 | Containerization Technology & Architecture Lab

Provides a series of exercises for applying and combining Containerization concepts, technologies, architecture models to solve real-world problems.

Quantum Computing



Request this Guide

Provides comprehensive coverage the concepts, technology models and infrastructure components that comprise contemporary quantum computing solutions, as well as guidance for how to utilize these solutions in IT enterprise environments.

MODULE 01 | Fundamental Quantum Computing

Covers basic concepts, terminology and models associated with quantum computing, as well as the common benefits, challenges and drivers of utilizing quantum computing in the real world. Topics include quantum physics, quantum states and information theory, as well as qubits, quantum gates, quantum storage and data paths.

MODULE 02 | Advanced Quantum Computing

Delves into additional quantum computing practices and infrastructure to establish insight into how quantum computing technology and practices can be applied in the real world and integrated with business automation solutions. Topics data teleportation, quantum error correction, linear ion trap, high Q optical cavity, nuclear magnetic resonance, quantum memory refresh units and parallelism.

MODULE 03 | Quantum Computing Lab

Provides a series of real-world exercises for applying and combining technologies and models associated with assembling quantum computing solutions for common usage scenarios.

Arcitura® CERTIFIED

The Next-Gen Data Science Academy from Arcitura provides formal education and accreditation programs dedicated to the fields of Artificial Intelligence, Machine Learning, Big Data, including analytics and analysis, data science, architecture, engineering and governance.

The Next-Gen Data Science Academy curriculum is comprised of 24 course modules and 9 certification tracks. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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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NEXT-GEN DATA SCIENCE ACADEMY

CERTIFICATIONS

Arcitura® CERTIFIED *Big Data Science Professional*

A Certified Big Data Science Professional has knowledge of fundamental data science and Big Data concepts and models, as well as an understanding of Big Data analysis, analytics and mechanisms.

Big Data Analytics & Fundamental Data Science
COURSE 01 02 03

Arcitura® CERTIFIED *Big Data Scientist*

A Certified Big Data Scientist has knowledge of a range of analysis and analytics techniques, as well as the processes required for processing large volumes of complex data to drive decision-making.

Big Data Analysis & Advanced Data Science
COURSE 04 05 06

Arcitura® CERTIFIED *Data Science Consultant*

A Certified Data Science Consultant has knowledge of a cross-section of contemporary data science-related fields of practice, including big data analytics, machine learning and artificial intelligence so as to provide guidance and advisory services.

Data Science Professional Consulting
COURSE 07 10

Arcitura® CERTIFIED *Machine Learning Specialist*

A Certified Machine Learning Specialist understands how and where machine learning techniques are best utilized to produce business value, and has knowledge of associated algorithms and system designs, as well as advanced model learning approaches and analysis practices.

Machine Learning
COURSE 07 08 09

Arcitura® CERTIFIED *Artificial Intelligence Specialist*

A Certified Artificial Intelligence Specialist understands how AI practices can be utilized to perform data analysis and autonomous data processing and has knowledge of AI learning approaches and functional designs, as well as knowledge of neural networks.

Artificial Intelligence
COURSE 10 11 12

Arcitura® CERTIFIED *Big Data Engineer*

A Certified Big Data Engineer has knowledge of designing and integrating Big Data platforms and solutions, with an emphasis on the mechanisms used to enable data processing, data storage and the utilization of Big Data pipelines.

Big Data Engineering
COURSE 13 14 15

Arcitura® CERTIFIED *Big Data Architect*

A Certified Big Data Architect has knowledge of Big Data platform technology architecture and Big Data application architecture within IT enterprise and cloud-based environments.

Big Data Architecture
COURSE 16 17 18

Arcitura® CERTIFIED *Data Science Governance Specialist*

A Certified Data Science Governance Specialist has an understanding of governance frameworks and controls to standardize and regulate the lifecycles, pipelines and platforms pertaining to data analysis and processing practices used in machine learning, AI and big data.

Data Science Governance
COURSE 19 20 21

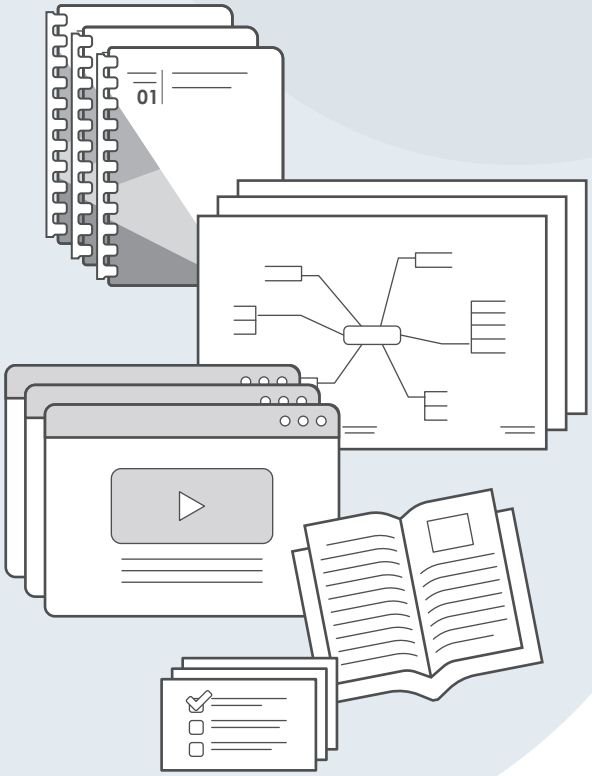
Arcitura® CERTIFIED *AI Decisioning Specialist*

A Certified AI Decisioning Specialist has an understanding of artificial intelligence concepts, models and practices that pertain to enabling and maintaining AI systems with autonomous decision-making capabilities.

AI Decisioning
COURSE 22 23 24

Arcitura® CERTIFIED

Next-Gen Data Science courses are available via online study, as well as in-person or virtual instructor-led training and coaching.



Big Data Analytics & Fundamental Data Science

Develops skills in Big Data analytics and analysis, as well as data science fundamentals.

Request this Guide

MODULE 01 | Fundamental Big Data Science & Analytics

This foundational module establishes a basic understanding of fundamental data science, and explains Big Data from business and technology perspectives, including common concepts, models, benefits, challenges and adoption issues.

MODULE 02 | Big Data Analysis & Technology Concepts

Explores contemporary data analysis practices, technologies and tools for Big Data environments at a conceptual level, focusing on common analysis approaches, functions and features of Big Data solutions. Also covered is the Big Data Analysis Lifecycle.

MODULE 03 | Big Data Analysis & Technology Lab

Provides a series of real-world exercises for assessing and establishing Big Data environments, and for solving problems using common Big Data analysis techniques.

Big Data Analysis & Advanced Data Science

Provides comprehensive coverage of contemporary Big Data analysis and analytics practices and advanced data science techniques and processes.

Request this Guide

04

MODULE 04 | Big Data Analysis & Science

Provides comprehensive coverage of Big Data analysis algorithms, analytics, data mining and statistical techniques, as well as exploratory data analysis, confirmatory data analysis, visualization and predictions.

05

MODULE 05 | Advanced Big Data Analysis & Science

Covers the application of a range of essential and advanced analysis techniques, including modeling and model evaluation, data reduction, classification, pattern identification, time series analysis, text analytics and outlier detection.

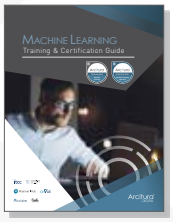
06

MODULE 06 | Big Data Analysis & Science Lab

Provides a series of real-world exercises for applying Big Data analysis and analytics techniques to fulfill business requirements and solve complex problems.

Machine Learning

Develops skills in Machine Learning practices, models and algorithms, as well as Machine Learning systems that can perform a range of data analysis processing tasks.



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07

MODULE 07 | Fundamental Machine Learning

Provides an easy-to-understand overview of Machine Learning that explains how it works, what it can and cannot do and how it is commonly utilized in support of business goals. The module covers common algorithm types and further explains how Machine Learning systems work behind the scenes.

08

MODULE 08 | Advanced Machine Learning

Delves into the many algorithms, methods and models of contemporary Machine Learning practices to explore how a range of different business problems can be solved by utilizing and combining proven Machine Learning techniques.

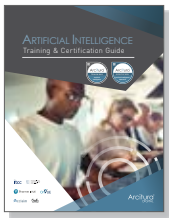
09

MODULE 09 | Machine Learning Lab

Provides a series of exercises for applying Machine Learning systems and techniques, as they are applied and combined to solve real-world problems.

Artificial Intelligence (AI)

Develops skills in AI practices and learning approaches, as well as Neural Network architectures, cell types and activation functions.



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10

MODULE 10 | Fundamental Artificial Intelligence

Provides essential coverage of Artificial Intelligence and neural networks in easy-to-understand, plain English. The course module provides concrete coverage of the primary parts of AI, including learning approaches, functional areas that AI systems are used for and a thorough introduction to neural networks, how they exist, how they work and how they can be used to process information. The module further establishes a step-by-step process for assembling an AI system.

11

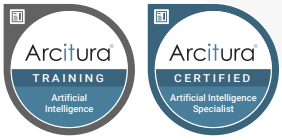
MODULE 11 | Advanced Artificial Intelligence

Covers a series of practices for preparing and working with data for training and running contemporary AI systems and neural networks. It further provides techniques for designing and optimizing neural networks, including approaches for measuring and tuning neural network model performance.

12

MODULE 12 | Artificial Intelligence Lab

Provides a series of exercises for applying AI systems and neural network architectures, as they are applied and combined to solve real-world problems.



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Arcitura® CERTIFIED

Next-Gen Data Science courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Data Science Professional Consulting

Provides comprehensive coverage of contemporary Big Data analysis and analytics practices and advanced data science techniques and processes.

Request this Guide

07

MODULE 07 | Fundamental Machine Learning

Provides an easy-to-understand overview of Machine Learning that explains how it works, what it can and cannot do and how it is commonly utilized in support of business goals. The module covers common algorithm types and further explains how Machine Learning systems work behind the scenes.

10

MODULE 10 | Fundamental Artificial Intelligence

Provides essential coverage of Artificial Intelligence and neural networks in easy-to-understand, plain English. The course module provides concrete coverage of the primary parts of AI, including learning approaches, functional areas that AI systems are used for and a thorough introduction to neural networks, how they exist, how they work and how they can be used to process information. The module further establishes a step-by-step process for assembling an AI system.

Big Data Engineering

Covers essential practices for designing, configuring and utilizing Big Data solutions, including Big Data storage environments, pipelines and data processing.

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13

MODULE 13 | Fundamental Big Data Engineering

Explores on the usage and application of the Hadoop and MapReduce frameworks, as well as a range of Big Data engineering techniques and technologies. Coverage includes Big Data storage models, NoSQL and NewSQL, as well as Big Data processing engines.

14

MODULE 14 | Advanced Big Data Engineering

Delves into advanced engineering topics pertaining primarily to the storage and processing of Big Data datasets. The module covers advanced Big Data engineering mechanisms, in-memory data storage and realtime data processing, as well as MapReduce algorithms, bulk synchronous parallel processing and graph data processing.

15

MODULE 15 | Big Data Engineering Lab

Provides a series of real-world exercises for designing Big Data algorithms, Big Data processing and Big Data storage environments.

Big Data Architecture

Provides comprehensive coverage of design techniques, technology architecture models and patterns associated with building and integrating Big Data solutions within enterprise environments.

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MODULE 16 | Fundamental Big Data Architecture

Provides coverage of the Hadoop stack, data pipelines and Big Data technology architecture layers, mechanisms and components, as well as associated design patterns for building and integrating Big Data solutions.

MODULE 17 | Advanced Big Data Architecture

Provides a drill-down of Big Data solution environments, architectural models and layers, and additional advanced design patterns. Also covered are cloud-based implementations and enterprise integration considerations, as well as topics pertaining to storage, processing and security.

MODULE 18 | Big Data Architecture Lab

Provides a series of real-world exercises for building and integrating Big Data solutions within IT enterprises and cloud-based environments.

Arcitura TRAINING Big Data Architecture

Arcitura CERTIFIED Big Data Architect

Data Science Governance

Develops knowledge and skills of Data Science Governance precepts, processes and roles that pertain to machine learning, artificial intelligence (AI) and big data solutions and processing environments.

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MODULE 19 | Fundamental Data Science Governance for Big Data, Machine Learning & AI

Describes data science governance concepts and basics and identifies common risks and challenges, as well as key roles for those involved in governance projects. The course module further explores the analytics pipeline governance lifecycle and establishes over 70 data science governance precepts and processes. The module maps how precepts and processes relate to each other and how they relate to governance stages.

MODULE 20 | Advanced Data Science Governance for Big Data, Machine Learning & AI

In this course module, over 80 additional data science governance precepts and processes are described in relation to analytics platform governance and machine learning and AI pipeline governance stages. Relevant roles are also mapped to individual governance stages.

MODULE 21 | Data Science Governance Lab for Big Data, Machine Learning & AI

Provides a series of real-world exercises for fostering a comprehensive understanding of how different data science governance precepts and processes can be applied to address common governance concerns.

Arcitura TRAINING Data Science Governance

Arcitura CERTIFIED Data Science Governance Specialist

AI Decisioning

Provides coverage of essential AI topics and explores the technologies, techniques and data processing models distinct to enabling autonomous decision-making within AI systems.

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MODULE 22 | Fundamental AI Decisioning

Covers essential topics pertaining to AI systems, neural networks and data processing, with an emphasis on autonomous decision-making capability-enablement. Topics include risk assessment, reinforcement learning, decision-result evaluation, ethics and behavior control.

MODULE 23 | Advanced AI Decisioning

Covers advanced topics, such as knowledge representation, rules of inference, probabilistic reasoning and First-Order Logic (FOL) and documents a series of AI practices as applied to autonomous decision-making, including reasoning, data wrangling, reinforcement learning and model evaluation and optimization.

MODULE 24 | AI Decisioning Lab

Provides a series of real-world exercises for utilizing AI practices and techniques to assemble AI-driven, autonomous decisioning solutions for common usage scenarios.

Arcitura TRAINING AI Decisioning

Arcitura CERTIFIED AI Decisioning Specialist

Arcitura® CERTIFIED

The Cloud Computing School from Arcitura provides formal education and accreditation programs dedicated to fields of practice associated with Cloud Computing, including technology architecture, security, governance and specialized areas of cloud technology.

The Cloud Computing School curriculum is comprised of 18 course modules and 7 certification tracks. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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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Arcitura® CERTIFIED *Cloud Technology Professional*

A Certified Cloud Technology Professional has an understanding of cloud computing concepts, mechanisms and security considerations, and has knowledge of the technologies and building blocks used to assemble and evolve cloud platforms and solutions.

Arcitura® CERTIFIED *Cloud Computing Consultant*

A Certified Cloud Computing Consultant has knowledge of essential cloud delivery models, platforms and technologies, as well as an understanding of fundamental cloud technology architecture models and cloud security threats and practices, so as to provide guidance and advisory services.

Arcitura® CERTIFIED *Cloud Architect*

A Certified Cloud Architect has an understanding of cloud computing technology and application architecture, and has knowledge of engineering practices used to build and evolve cloud environments.

Arcitura® CERTIFIED *Cloud Security Specialist*

A Certified Cloud Security Specialist has detailed knowledge of common security threats, security controls and associated technologies, and has knowledge of practices related to securing cloud platforms, cloud services and cloud-based infrastructure.

Arcitura® CERTIFIED *Cloud Governance Specialist*

A Certified Cloud Governance Specialist understands how to define, establish and evolve governance controls and frameworks specifically for cloud computing environments and solutions.

Arcitura® CERTIFIED *Cloud Storage Specialist*

A Certified Cloud Storage Specialist has a detailed understanding of cloud storage mechanisms, devices and technologies, and has knowledge of the practices pertaining to the design and integration of cloud storage components and services.

Arcitura® CERTIFIED *Cloud Virtualization Specialist*

A Certified Cloud Virtualization Specialist has a detailed understanding of cloud virtualization technologies and mechanisms, as well as knowledge of the cloud virtualization technology architecture.

Arcitura® CERTIFIED

Cloud Computing School courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Cloud Computing

Develops knowledge and skills in Cloud Computing concepts, industry technologies, mechanisms and cloud delivery and deployment models. Also covered are business metrics, SLAs and topics pertaining to cloud security.

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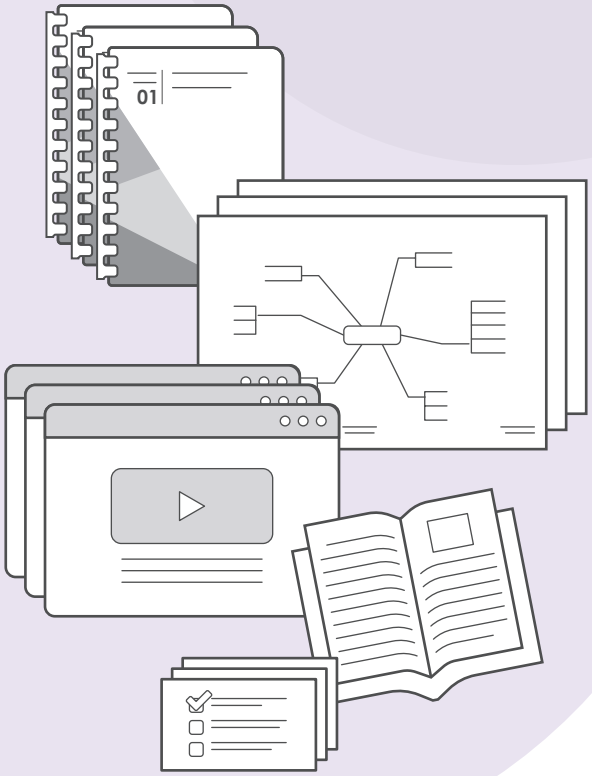


MODULE 01 | Fundamental Cloud Computing

Introduces concepts, terminology, technologies, benefits and challenges associated with Cloud Computing, as well as SLAs and business cost metrics for cloud-based environments. SaaS, PaaS and IaaS delivery models are explained, along with common cloud deployment models and cloud characteristics.

MODULE 02 | Cloud Technology Concepts

Covers a range of topics related to Cloud Computing mechanisms, containerization, cloud security threats and controls and essential cloud technologies. Also addressed are testing, cloud storage, industry standards and emerging cloud technologies and trends.

MODULE 03 | Cloud Technology Lab

Provides a series of real-world exercises for utilizing cloud mechanisms and technologies to assemble cloud-based solutions in order to fulfill business automation requirements.

Cloud Computing Professional Consulting

Covers fundamental cloud technology architecture models and design practices, as well as essential cloud security threats, controls and counter-measures.

Request this Guide

04

MODULE 04 | Fundamental Cloud Architecture

Delves into the technology architecture of cloud platforms and cloud-based solutions and services by exploring a series of new cloud computing mechanisms and their utilization via cloud computing design patterns that encompass architectural models, design techniques and the incorporation of containerization.

07

MODULE 07 | Fundamental Cloud Security

Dives into the implementation technologies behind the cloud security mechanisms and further explores how cloud-based security technologies can be configured and combined to establish a cloud security architecture.

Arcitura TRAINING Cloud Computing Professional Consulting

Arcitura CERTIFIED Cloud Computing Consultant

Cloud Architecture

Provides comprehensive coverage of design techniques, technology architecture models, design patterns and mechanisms associated with building cloud-based environments and solutions.

Request this Guide

04

MODULE 04 | Fundamental Cloud Architecture

Delves into the technology architecture of cloud platforms and cloud-based solutions and services by exploring a series of new cloud computing mechanisms and their utilization via cloud computing design patterns that encompass architectural models, design techniques and the incorporation of containerization.

05

MODULE 05 | Advanced Cloud Architecture

Advanced technology architecture topics are addressed, with a focus on complex cloud-based solution design, including the incorporation of hybrid cloud deployment models, compound design patterns, containerization and solution architectures that span cloud and on-premise environments.

06

MODULE 06 | Cloud Architecture Lab

Provides a series of real-world exercises for applying technology architecture models and design techniques for a range of cloud usage scenarios.

Arcitura TRAINING Cloud Architecture

Arcitura CERTIFIED Cloud Architect

CONTINUED

Arcitura® CERTIFIED

Cloud Computing School courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Cloud Security

Provides comprehensive coverage of security controls, mechanisms and architecture models, as well as techniques and practices for responding to security threats.

Request this Guide

MODULE 07 | Fundamental Cloud Security

Dives into the implementation technologies behind the cloud security mechanisms and further explores how cloud-based security technologies can be configured and combined to establish a cloud security architecture.

MODULE 08 | Advanced Cloud Security

Complex security topics are covered with an emphasis on the application of cloud security mechanisms, models and technologies in order to establish sophisticated, custom security controls for preventative and reactionary responses to common threats and attacks.

MODULE 09 | Cloud Security Lab

Provides a series of exercises for applying security techniques and mechanisms to complete a series of exercises that present real-world security problems.

Arcitura TRAINING Cloud Security

Arcitura CERTIFIED Cloud Security Specialist

Cloud Governance

Provides comprehensive coverage of precepts, processes and roles that pertain to the governance of cloud-based environments, resources and solutions and that further develop skills in establishing a custom cloud governance framework.

Request this Guide

MODULE 10 | Fundamental Cloud Governance

Covers the essential building blocks required to establish a governance system for cloud environments. Topics include the definition of cloud governance precepts, roles, practices and processes, along with coverage of common governance challenges and pitfalls specific to cloud computing.

MODULE 11 | Advanced Cloud Governance

Advanced cloud governance topics are covered to focus on establishing regulatory controls and precepts for a range of cloud-based IT resources and solutions in relation to different cloud project delivery stages.

MODULE 12 | Cloud Governance Lab

Provides a series of exercises for applying cloud governance framework components, models, precepts and processes to complete a series of real-world exercises.

Arcitura TRAINING Cloud Governance

Arcitura CERTIFIED Cloud Governance Specialist

Cloud Storage

Covers cloud storage devices and mechanisms, as well as cloud storage architectures and solutions.

Request this Guide

MODULE 13 | Fundamental Cloud Storage

Explores cloud storage devices, structures and technologies from an implementation-specific perspective, including cloud storage mechanisms and devices, along with in-depth coverage of NoSQL and cloud storage services.

MODULE 14 | Advanced Cloud Storage

A number of advanced topics are covered, including persistent, redundant, cloud-attached and cloud-remote storage, as well as cloud storage gateways, cloud storage brokers, DAS, NAS, SAN, various cloud storage-related design patterns and information lifecycle management as it applies to cloud-hosted data.

MODULE 15 | Cloud Storage Lab

Provides a series of real-world exercises for applying design practices and utilizing cloud storage devices and mechanisms to complete a series of exercises that pertain to solving cloud storage problems and creating cloud storage architectures.

Cloud Virtualization

Covers industry virtualization technology models and mechanisms for building cloud-based virtualization environments and solutions.

Request this Guide

MODULE 16 | Fundamental Cloud Virtualization

Core topic areas pertaining to fundamental virtualization mechanisms and types used within contemporary cloud computing platforms are explored, along with various key performance indicators and related metrics.

MODULE 17 | Advanced Cloud Virtualization

A range of specialized and advanced design practices and architecture models are provided to explore virtualization-related reliability, performance and integration. Combinations of virtualization mechanisms are covered in different application scenarios.

MODULE 18 | Cloud Virtualization Lab

Provides a series of exercises for applying cloud virtualization technology architectures and mechanisms to complete a series of real-world exercises.

Arcitura® CERTIFIED

The Service Technology School from Arcitura provides formal education and accreditation programs dedicated to the fields of Microservices, Service APIs and SOA, including analysis, modeling, design, architecture, security and governance.

The Service Technology School curriculum is comprised of 20 course modules and 9 certification tracks. Exams are available worldwide via online proctoring and on-site delivery by Certified Trainers. Achieving a passing grade on the 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.

QUESTIONS?

Contact us at: info@arcitura.com

itcc PCC PROFESSIONAL CERTIFICATION COALITION Pearson | VUE OnVUE Acclaim Credly by Pearson

Arcitura® CERTIFIED *Microservice Professional*

A Certified Microservice Professional has an understanding of technologies, models, messaging patterns and implementation mediums commonly utilized for the creation of microservices and other types of services.

Fundamental Microservices & Service Technology
COURSE 01 02

Arcitura® CERTIFIED *SOA Professional*

A Certified SOA Professional has an understanding of service technology, microservices, APIs and service-oriented architecture (SOA), as well as knowledge of design principles for building services and assembling service-oriented solutions.

Fundamental SOA Design with Services & Microservices
COURSE 01 03

Arcitura® CERTIFIED *SOA Analyst*

A Certified SOA Analyst has an in-depth understanding of analysis techniques and processes for modeling service APIs, microservice APIs and service compositions for service portfolio and service-oriented solution blueprints.

SOA Analysis & Modeling with Services & Microservices
COURSE 04 05 06

Arcitura® CERTIFIED *SOA Architect*

A Certified SOA Architect has an in-depth understanding of the technology and application architecture models and mechanics of service, microservice and service composition implementations, and knowledge of how to engineer modern-day services-oriented solutions.

SOA Design & Architecture with Services & Microservices
COURSE 03 07 08

Arcitura® CERTIFIED *Microservice Architect*

A Certified Microservice Architect has knowledge of the technology architecture models and mechanics of microservice implementations and containerization environments, as well as an understanding of associated design techniques for engineering microservices.

Microservice Design & Architecture
COURSE 09 10 11

Arcitura® CERTIFIED *Microservice Consultant*

A Certified Microservice Consultant has knowledge of a cross-section of service technologies, solution design practices, API design techniques and security considerations relevant to microservices and other types of services.

Microservice Professional Consulting
COURSE 09 12 18

Arcitura® CERTIFIED *Service API Specialist*

A Certified Service API Specialist has in-depth knowledge of service API design and coupling techniques, and REST and web-capable RPC protocols, as well as associated management practices, including monetization and versioning.

Service API Design & Management
COURSE 12 13 14

Arcitura® CERTIFIED *Service Governance Specialist*

A Certified Service Governance Specialist has an in-depth understanding of project delivery methodology, as well as the definition and evolution of a service governance framework comprised of formal precepts, roles and processes.

Service Governance & Project Delivery
COURSE 15 16 17

Arcitura® CERTIFIED *Service Security Specialist*

A Certified Service Security Specialist has comprehensive knowledge of common threats and vulnerabilities associated with solutions based on the use of services and microservices, and has an understanding of how to equip solution architectures with security controls.

Security for Microservices & SOA
COURSE 18 19 20

Arcitura® CERTIFIED

Microservice and SOA courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Fundamental Microservices & Service Technology

Request this Guide

Provides an understanding of the concepts, models and industry technologies relevant to contemporary microservices and other API-driven service technology implementations.

01

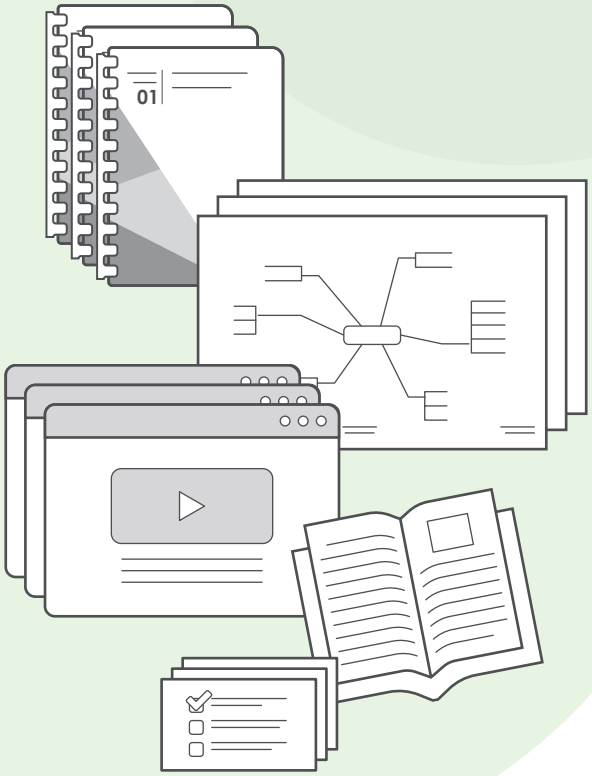
MODULE 01 | Fundamental SOA, Services & Microservices

Provides comprehensive coverage of contemporary concepts, models and technologies pertaining to modern-day microservices and other forms of API-driven services, including coverage of service-oriented computing and service-oriented architecture (SOA).

02

MODULE 02 | Microservice Technology Concepts

Covers industry technologies, implementation mediums and messaging protocols relevant to microservices and other forms of API-driven services, as well as basic coverage of relevant cloud computing topics.



Fundamental SOA Design with Services & Microservices

Request this Guide

Establishes an essential understanding of the technologies and concepts associated with designing and composing API-driven services and microservices, as well as models and characteristics of service-oriented architecture.

01

MODULE 01 | Fundamental SOA, Services & Microservices

Provides comprehensive coverage of contemporary concepts, models and technologies pertaining to modern-day microservices and other forms of API-driven services, including coverage of service-oriented computing and service-oriented architecture (SOA).

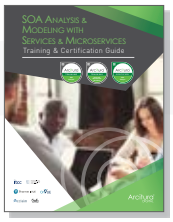
03

MODULE 03 | Design & Architecture with SOA, Services & Microservices

Essential topics pertaining to service architectural models and practices and service-orientation principles relevant to service and microservice design, along with a range of distinct considerations for designing service-oriented solutions with REST services and Web services.

SOA Analysis & Modeling with Services & Microservices

Provides in-depth coverage of service and API modeling for microservices and other types of services, include the modeling of complex service compositions and service inventory blueprints.



Request this Guide

04

MODULE 04 | Fundamental SOA Analysis & Modeling with Services & Microservices

Provides comprehensive coverage of SOA analysis techniques, models and approaches, including strategies and concepts for service modeling, service composition modeling and microservice modeling.

05

MODULE 05 | Advanced SOA Analysis & Modeling with Services & Microservices

Delves into the step-by-step processes for the analysis and modeling of services and microservices for REST service and Web service mediums, with an emphasis on establishing effective service layers as part of an overall conceptual blueprint.

06

MODULE 06 | SOA Analysis & Modeling Lab with Services & Microservices

Provides a series of real-world exercises for applying service modeling and SOA analysis techniques for a range of different services-based solutions.

Arcitura TRAINING SOA Analysis

Arcitura TRAINING Service & Microservice Modeling

Arcitura CERTIFIED SOA Analyst

SOA Design & Architecture with Services & Microservices

Provides in-depth coverage of service-oriented technology and application architecture models, design patterns and integration techniques.

Request this Guide

03

MODULE 03 | Design & Architecture with SOA, Services & Microservices

Essential topics pertaining to service architectural models and practices and service-orientation principles relevant to service and microservice design, along with a range of distinct considerations for designing service-oriented solutions with REST services and Web services.

07

MODULE 07 | Advanced SOA Design & Architecture with Services & Microservices

Provides an in-depth exploration of the overarching models and underlying mechanics of service-oriented technology architecture. A wide range of topic areas is covered to provide techniques, insights and perspectives of the inner workings of service and composition architectures, including messaging, microservice deployments, service contracts, API gateways, containerization and others.

08

MODULE 08 | SOA Design & Architecture Lab with Services & Microservices

Provides a series of real-world exercises for applying service-oriented technology architecture models and techniques to design a variety of service-oriented solution architectures.

Arcitura TRAINING SOA Design & Architecture

Arcitura CERTIFIED SOA Architect

CONTINUED

Arcitura® CERTIFIED

Microservice and SOA courses are available via online study, as well as in-person or virtual instructor-led training and coaching.

Microservice Design & Architecture

Provides comprehensive coverage of microservice technology architecture models and design practices, as well as associated containerization technology components and design approaches.

Request this Guide

09

MODULE 09 | Fundamental Microservice Architecture & Containerization

Establishes foundational microservice technology architecture and design models and further introduces containerization concepts and container characteristics. Topics covered include microservice deployment, provisioning, registration and isolation levels, as well as logical containers, PODs and composition architecture.

10

MODULE 10 | Advanced Microservice Architecture & Containerization

Provides an in-depth exploration of the practices, models and technology architectures behind microservices and containerization. Topics include microservice scaling, data management and autonomous ownership and versioning, as well as event sourcing, CQRS, composite isolated containers and container hosting models.

11

MODULE 11 | Microservice Architecture & Containerization Lab

Provides a series of real-world exercises for applying architectural and design exercises pertaining to microservices and the use of containerization.

Microservice Professional Consulting

Provides a cross-section of topic coverage that includes microservice application architecture, containerization, service API design and management, and security technology and practices relevant to microservices.

Request this Guide

09

MODULE 09 | Fundamental Microservice Architecture & Containerization

Establishes foundational microservice technology architecture and design models and further introduces containerization concepts and container characteristics. Topics covered include microservice deployment, provisioning, registration and isolation levels, as well as logical containers, PODs and composition architecture.

12

MODULE 12 | Fundamental Service API Design & Management

Essential topics are covered pertaining to modern-day service API design and management practices and models. Coverage includes positive and negative API coupling types, API granularity levels, the use of API proxies and API gateways, as well as service API versioning.

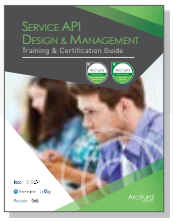
18

MODULE 18 | Fundamental Security for Services, Microservices & SOA

Provides coverage of essential security concepts and controls, as well as techniques and industry technologies that pertain to establishing security measures and security architectures for microservices and other types of services.

Service API Design & Management

Provides comprehensive coverage of API design techniques, coupling and granularity considerations, and API management practices including API versioning. Also covered are serialization protocols, as well as topics pertaining to REST and RPC protocols.



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MODULE 12 | Fundamental Service API Design & Management

Essential topics are covered pertaining to modern-day service API design and management practices and models. Coverage includes positive and negative API coupling types, API granularity levels, the use of API proxies and API gateways, as well as service API versioning.

MODULE 13 | Advanced Service API Design & Management

Advanced coverage of service API design and management techniques and practices, binary and non-binary data serialization protocols (such as Protocol Buffers and Apache Avro), as well as RPC-based service API protocols (such as gRPC, GraphQL and Falcor).

MODULE 14 | Service API Design & Management Lab

Provides a series of real-world exercises for applying service API design techniques and management practices for a range of different solution scenarios.

Arcitura TRAINING Service API Design & Management

Arcitura CERTIFIED Service API Specialist

Service Governance & Project Delivery

Provides end-to-end coverage of service technology project delivery stages and SOA governance phases, along with numerous associated precepts, processes and roles.

Request this Guide

MODULE 15 | Fundamental Service Governance & Project Delivery

Service project delivery methodologies are explained, along with governance technology and task types and service vitality triggers and processes. Coverage includes SOA adoption planning and information and service policy governance precepts, processes and roles.

MODULE 16 | Advanced Service Governance & Project Delivery

A range of service governance precepts and processes for SOA is covered, including those that address service usage, monitoring, legal data audits, testing practices, as well as service analysis, design and programming.

MODULE 17 | Service Governance & Project Delivery Lab

Provides a series of real-world exercises for establishing service lifecycle governance programs and measuring and identifying weaknesses in existing governance systems.

Arcitura TRAINING SOA Governance

Arcitura TRAINING Service Governance

Arcitura CERTIFIED Service Governance Specialist

Security for Microservices & SOA

Provides in-depth coverage of industry technologies, practices and controls used to secure microservice-based applications and other types of service-oriented solutions and counter common security threats.

Request this Guide

MODULE 18 | Fundamental Security for Services, Microservices & SOA

Provides coverage of essential security concepts and controls, as well as techniques and industry technologies that pertain to establishing security measures and security architectures for microservices and other types of services.

MODULE 19 | Advanced Security for Services, Microservices & SOA

Covers a series of technical and complex security topics pertaining to contemporary microservice deployments, service-oriented solution design, infrastructure, API gateways and modern service technologies.

MODULE 20 | Security Lab for Services, Microservices & SOA

Provides a series of real-world exercises for applying security practices and technologies to counter threats and solve complex service technology security problems.

Arcitura TRAINING SOA Security

Arcitura TRAINING Microservice Security

Arcitura CERTIFIED Service Security Specialist

EXAM PROCTORING

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Pearson VUE OnVUE Online Proctoring enables test takers to take proctored exams remotely, in any time zone, and often on short notice. For more information, visit: www.pearsonvue.com/arcitura/op

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Arcitura Direct Online Proctoring enables test takers to take proctored exams remotely, in any time zone, and often on short notice. For more information, contact info@arcitura.com and provide your exam scheduling preferences.

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It is possible for Arcitura exams to be taken during the delivery of onsite workshops. In this case, the Certified Trainer teaching the workshop also acts as the exam proctor. Contact info@arcitura.com for more information regarding this option.

You can take exams from anywhere in the world via Pearson VUE testing centers, Pearson VUE OnVUE online proctoring, direct online proctoring and/or onsite exam proctoring at your location. Visit www.arcitura.com/exams for details.

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Training & Exam Preparation Resources

You can supplement courses 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.

AI & Cloud AI Professional Academy

Arcitura®

COURSES	Predictive AI	Generative AI	AI Engineering	AI Architecture & Design	AI Professional Consulting	AI Chatbot Concepts & Design	NLP Engineering	Cloud AI Technology & Automation	Cloud AI Architecture & Design
CERTIFICATIONS	**Predictive AI Specialist**	**Generative AI Specialist**	**AI Engineer**	**AI Architect**	**AI Consultant**	**AI Chatbot Specialist**	**NLP Engineer**	**Cloud AI Professional**	**Cloud AI Architect**
MODULE 01 Fundamental Predictive AI	●		●	●	●				
MODULE 02 Advanced Predictive AI	●								
MODULE 03 Predictive AI Lab	●								
MODULE 04 Fundamental Generative AI		●	●	●	●				
MODULE 05 Advanced Generative AI		●							
MODULE 06 Generative AI Lab		●							
MODULE 07 Fundamental AI Engineering			●		●				
MODULE 08 Advanced AI Engineering			●						
MODULE 09 AI Engineering Lab			●						
MODULE 10 Fundamental AI Architecture				●	●				
MODULE 11 Advanced AI Architecture				●					
MODULE 12 AI Architecture Lab				●					
MODULE 13 Fundamental AI Chatbot Concepts & Design						●			
MODULE 14 Advanced AI Chatbot Concepts & Design						●			
MODULE 15 AI Chatbot Concepts & Design Lab						●			
MODULE 16 Fundamental NLP Engineering							●		
MODULE 17 Advanced NLP Engineering							●		
MODULE 18 NLP Engineering Lab							●		
MODULE 19 Fundamental Cloud AI Technology & Automation								●	●
MODULE 20 Advanced Cloud AI Technology & Automation								●	●
MODULE 21 Fundamental Cloud AI Architecture & Design									●
MODULE 22 Advanced Cloud AI Architecture & Design									●
MODULE 23 Cloud AI Architecture & Design Lab									●

DIGITAL TRANSFORMATION PROFESSIONAL ACADEMY

COURSES	Digital Transformation	Fundamental Digital Technology	Digital Technology & Architecture	Fundamental AI & Data Science for Digital Transformation	AI & Data Science for Digital Transformation	Fundamental Security for Digital Transformation	Security for Digital Transformation	Fundamental Intelligent Automation for Digital Transformation	Intelligent Automation for Digital Transformation
CERTIFICATIONS	**Digital Transformation Specialist**	**Digital Technology Professional**	**Digital Technology Architect**	**Digital Data Science Professional**	**Digital Data Scientist**	**Digital Security Professional**	**Digital Security Specialist**	**Intelligent Automation Professional**	**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									●

Attaining a certification that encompasses all of the course modules also associated with another certification results in the other certification also being automatically awarded.

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

NEXT-GEN DATA SCIENCE ACADEMY

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									●

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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							●

COURSES	Fundamental Microservices & Service Technology	Fundamental SOA Design with Services & Microservices	SOA Analysis & Modeling with Services & Microservices	SOA Design & Architecture with Services & Microservices	Microservice Design & Architecture	Microservice Professional Consulting	Service API Design & Management	Service Governance & Project Delivery	Security for Microservices & SOA
CERTIFICATIONS	**Microservice Professional**	**SOA Professional**	**SOA Analyst**	**SOA Architect**	**Microservice Architect**	**Microservice Consultant**	**Service API Specialist**	**Service Governance Specialist**	**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									●

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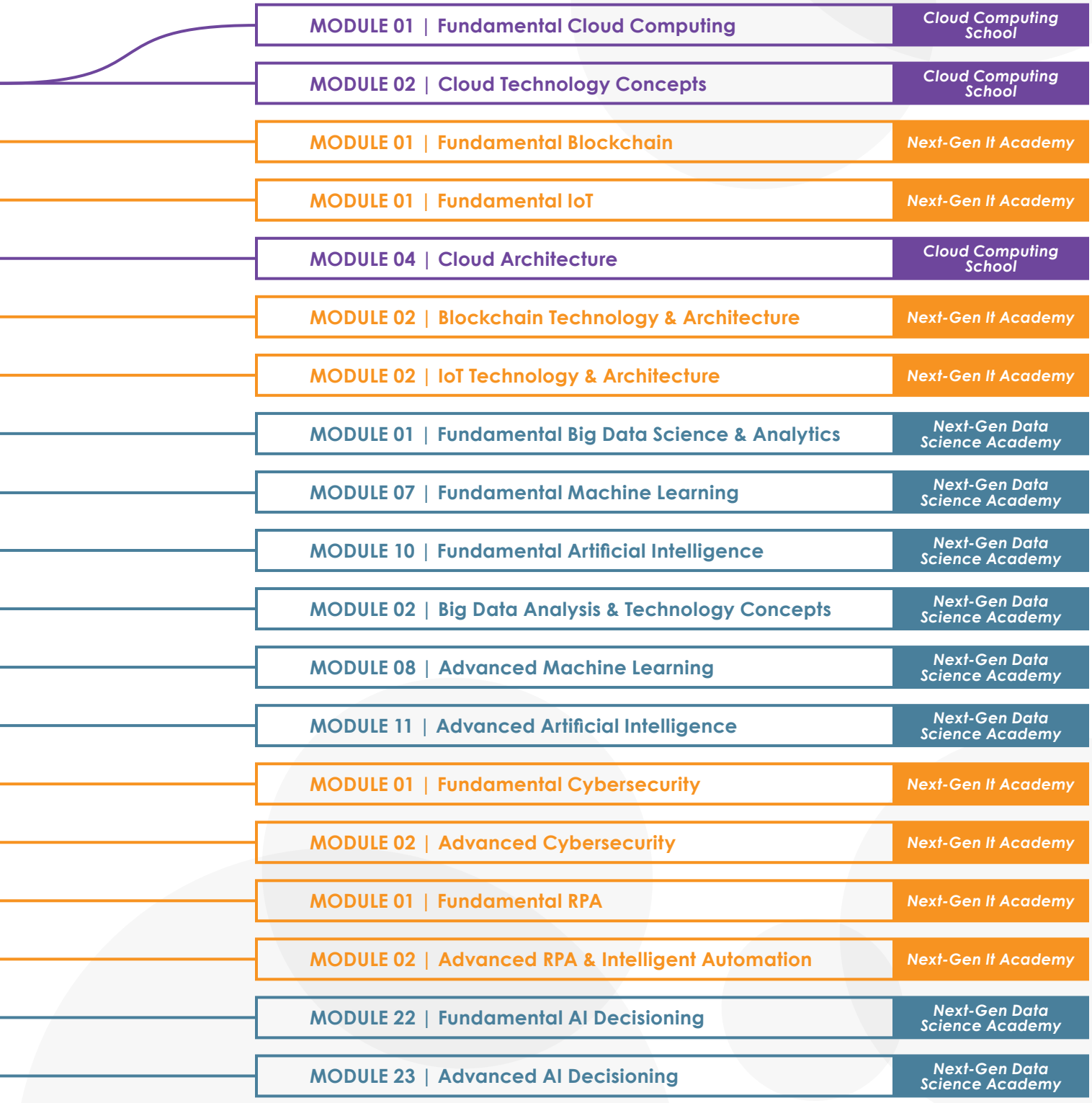
Curriculum Mapping

Digital Transformation

- 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

The following mapping diagram shows which course modules from the Digital Transformation Professional Academy curriculum correspond to course modules in other programs. Use this mapping information for your learning plan, as the completion of a course module in one program will automatically advance you in another course in a different program.



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