

Ace SOA-C02: AWS Solutions Architect Prep

AWS SOA-C02 Solutions Architect. Core services, architecture patterns, and design principles.

IT Certifications Instructor: Nick Williams • 5 sections • 46 lessons • 14.25h total

[View this course online](#) [Browse all courses](#)

About this course

This course prepares you for the AWS Solutions Architect (SOA-C02) exam. We cover AWS core services, architecture patterns, and design principles. Video lessons, hands-on labs, and practice exams included.

Course curriculum

Foundations: AWS Core Concepts & Exam Strategy

- **Decoding the SOA-C02 Exam Blueprint (12m)**
Break down the exam structure, question types, and weightings to build a targeted study plan.
- **Setting Up Your AWS Free Tier Account (8m)**
Step-by-step guide to creating and securing your AWS account for hands-on practice.
- **Identity and Access Management (IAM) Fundamentals (18m)**
Learn users, groups, roles, and policies with a practical permission policy breakdown.
- **AWS Global Infrastructure Explained (9m)**
Understand Regions, Availability Zones, and Edge Locations for optimal architecture decisions.
- **Shared Responsibility Model: What You Need to Know (11m)**
Clarify the security division between AWS and you for exam scenarios.
- **Pricing Models & Cost Optimization Basics (15m)**
Save money and pass the exam by understanding Reserved Instances, Savings Plans, and cost calculators.
- **Key AWS Services Overview: The Big Picture (20m)**
High-level tour of 20+ must-know services to frame your learning path.
- **Your First Hands-On Lab: Building a Simple Web Server (25m)**
Apply foundational concepts by launching an EC2 instance and configuring security groups.

Core Concepts: Compute, Storage & Networking

- **EC2 Deep Dive: Instance Types and Purchase Options (22m)**
Compare On-Demand, Spot, and Reserved Instances with real cost scenarios.
- **EBS Volume Types and Performance Tuning (16m)**
Master gp2, gp3, io1, and st1 for different workload requirements.
- **Elastic Load Balancing (ELB) Types and Use Cases (19m)**
Learn ALB, NLB, and GWLB differences with a traffic routing demo.
- **Auto Scaling Groups: Hands-On Configuration (24m)**
Build resilient applications with step-by-step Auto Scaling policies.
- **S3 Storage Classes and Lifecycle Policies (17m)**
Automate cost savings by transitioning objects between storage tiers.
- **VPC Networking: Subnets, Route Tables, and IGWs (28m)**
Design a custom VPC from scratch with public and private subnets.
- **NAT Gateways vs. NAT Instances: When to Use Which (14m)**
Solve outbound internet access for private subnets with clear comparisons.
- **Database Options: RDS, Aurora, and DynamoDB (23m)**
Match the right database service to your application needs with a decision framework.
- **CloudFront and Content Delivery Networks (13m)**
Speed up global applications with origin configurations and caching strategies.

- **Route 53: DNS and Health Checks (18m)**
Configure routing policies and failover for high availability.

Deep Dive: Security, Monitoring & Deployment

- **AWS Security Best Practices for the Exam (21m)**
Review KMS, security groups, NACLs, and encryption in transit and at rest.
- **CloudWatch Metrics, Alarms, and Logs (19m)**
Monitor resources effectively and troubleshoot with log insights.
- **AWS CloudTrail and Config for Governance (15m)**
Track changes and compliance with a practical audit scenario.
- **Simple Notification Service (SNS) & Simple Queue Service (SQS) (20m)**
Decouple applications with pub/sub and queuing patterns.
- **Lambda Basics: Serverless Compute (17m)**
Create and trigger a Lambda function with API Gateway.
- **Elastic Beanstalk vs. CloudFormation vs. OpsWorks (22m)**
Choose the right deployment and automation tool for your workflow.
- **High Availability vs. Fault Tolerance vs. Disaster Recovery (18m)**
Define architectures that meet specific resilience requirements.

Advanced Application: Scenario-Based Problem Solving

- **Multi-Tier Architecture Design Session (32m)**
Whiteboard a web app with web, app, and database tiers using best practices.
- **Hybrid Connectivity: VPN and Direct Connect (26m)**
Connect on-premises environments to AWS securely and reliably.
- **Cost-Optimized Architecture for a Startup (19m)**
Apply budget-friendly services and patterns to a realistic case study.
- **Securing a Public-Facing API (23m)**
Implement WAF, API Gateway throttling, and IAM roles for least privilege.
- **Data Transfer and Bandwidth Optimization (16m)**
Reduce costs with VPC endpoints, S3 Transfer Acceleration, and caching.
- **Disaster Recovery Strategies in AWS (27m)**
Design a DR plan with pilot light, warm standby, and multi-region failover.
- **Troubleshooting Common Exam Scenarios (14m)**
Work through frequent problem areas like VPC peering and IAM trust policies.
- **Advanced IAM: Federation and SSO (20m)**
Understand SAML, OIDC, and role chaining for enterprise setups.
- **Container Services: ECS, EKS, and Fargate (24m)**
Compare container orchestration options and their exam relevance.
- **Serverless Patterns: Step Functions & EventBridge (18m)**
Orchestrate complex workflows without managing servers.

Implementation & Next Steps: Exam Day & Beyond

- **Building Your Final Review Cheat Sheet (12m)**
Create a one-page reference of key facts, limits, and acronyms.
- **Practice Exam Strategy: How to Read Questions (15m)**
Techniques for eliminating wrong answers and spotting trick wording.
- **Timed Mock Exam Walkthrough Part 1 (35m)**
Solve 20 questions under time pressure with detailed explanations.
- **Timed Mock Exam Walkthrough Part 2 (35m)**
Continue with 20 more questions focusing on networking and security.
- **Reviewing Your Mistakes: A Learning Loop (18m)**
Turn practice errors into strengths with a structured review process.
- **Scheduling and Preparing for Exam Day (10m)**
Checklist for environment, ID, and software requirements for Pearson VUE.
- **Post-Certification: Jobs, Resume, and Next Certs (21m)**
Leverage your AWS certification for career growth and advanced paths.
- **Deep Dive Follow-Up: New Services to Watch (13m)**
Stay current with AWS updates that may appear in future exam versions.
- **Building a Portfolio Project with Your Skills (25m)**
Plan a capstone project to showcase your architecting abilities.
- **Community & Resources: Where to Get Help (8m)**
Join forums, study groups, and official AWS channels for support.
- **Course Wrap-Up: Your Action Plan (7m)**
Summarize your next steps and set a target exam date.

Discover our blog

Learn more with free articles written by our professors and guest experts.

Latest article: **[Flight Attendant Preparation: What to Study Before You Apply](#)**

[Visit the blog](#) [All courses](#) [This course](#)