### Course Schedule 2020

SAP Skills University Singapore

<table>
<thead>
<tr>
<th>Solution / Course</th>
<th>Duration</th>
<th>Fee excl 7% GST (SGD)</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSGHAO HANA Administration &amp; Operations – (FT)</td>
<td>16 days</td>
<td>11,775</td>
<td>02-Nov-20</td>
<td>26-Nov-20</td>
</tr>
<tr>
<td>HA100 SAP HANA 2.0 SPS03 - Introduction</td>
<td>2 days</td>
<td></td>
<td>02-Nov-20</td>
<td>03-Nov-20</td>
</tr>
<tr>
<td>HA200 SAP HANA 2.0 SPS03 Installation and Administration</td>
<td>5 days</td>
<td></td>
<td>04-Nov-20</td>
<td>10-Nov-20</td>
</tr>
<tr>
<td>HA201 SAP HANA 2.0 SPS03 - High Availability and Disaster Tolerance Administration</td>
<td>3 days</td>
<td></td>
<td>11-Nov-20</td>
<td>13-Nov-20</td>
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<tr>
<td>HA215 SAP HANA 2.0 SPS03 – Using Monitoring and Performance Tools</td>
<td>2 days</td>
<td></td>
<td>19-Nov-20</td>
<td>20-Nov-20</td>
</tr>
<tr>
<td>HA240 SAP HANA 2.0 SPS03 - Authorizations, Scenarios &amp; Security Requirements</td>
<td>2 days</td>
<td></td>
<td>23-Nov-20</td>
<td>24-Nov-20</td>
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<tr>
<td>HA250 SAP HANA 2.0 SPS04 - Database Migration using DMO</td>
<td>2 days</td>
<td></td>
<td>25-Nov-20</td>
<td>26-Nov-20</td>
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<tr>
<td>C_HANATEC_15 SAP Certified Technology Associate - SAP HANA 2.0 (SPS03)</td>
<td></td>
<td></td>
<td>18-Dec-20</td>
<td>18-Dec-20</td>
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Course details are the last updated on 07-May-2020
For more information, visit [https://training.sap.com/](https://training.sap.com/)

### HA100 SAP HANA 2.0 SPS03 - Introduction

#### Goals
- This course will prepare you to:
  - Understand the key concepts of SAP HANA and in-memory computing
  - Create a data model with SAP HANA modeling tools
  - Provision and enrich data into SAP HANA
  - Run analytics on SAP HANA

#### Audience
- Application Consultant
- Change Manager
- Business Analyst
- Application Developer
- BI / BW consultant
- Data Scientist
- Database Administrator

#### Prerequisites
**Essential**
- None
HA100 SAP HANA 2.0 SPS03 - Introduction (Contd...)

Recommended
• Basic understanding of business IT

Course based on software release
• SAP HANA 2.0 SPS03

Content
• Describing SAP HANA
  – Understanding the Need for a Modern Digital Platform
  – Describing how SAP HANA Powers a Digital Platform
• Architecture of SAP HANA
  – Outlining Components of SAP HANA
  – Working with SAP HANA interfaces
  – Understanding Key Features of SAP HANA Database
  – Describing High Availability
• Analytical Processing with SAP HANA
  – Understanding Core Modeling with SAP HANA
  – Understanding SAP Supplied Data Models
  – Advanced Modeling with SAP HANA
• Data Management with SAP HANA
  – Describing Data Management
  – Describing Data Acquisition Tools
  – SAP HANA Data Management Suite
• Developing and Running Applications on SAP HANA
  – Running SAP Enterprise Suites on SAP HANA
  – Connecting SAP Business Intelligence Tools to SAP HANA
  – Outlining SAP Business Warehouse on SAP HANA
  – Developing SQL Data Warehouses with SAP HANA
  – Building Native HANA Applications
• Appendix: Continuing your SAP HANA Learning Journey

Notes
• This course is based on SAP HANA 2.0 but is useful for customers working with SAP HANA 1.0

HA200 SAP HANA 2.0 SPS03 Installation and Administration

Goals
• This course will prepare you to:
  – Install and update a SAP HANA 2.0 SPS03 database.
  – Installation, configuration and upgrade of SAP HANA cockpit 2.0.
  – Perform the SAP HANA system administration tasks using SAP HANA cockpit 2.0.
  – Start and stop, change the configuration, backup and troubleshoot a SAP HANA 2.0 SPS03 database.
  – Backup and recover a multitenant SAP HANA 2.0 SPS03 database.
HA200 SAP HANA 2.0 SPS03 Installation and Administration (Contd...)

Audience
• Database Administrator
• Help Desk/CoE Support
• System Administrator
• Technology Consultant

Prerequisites
Essential
• HA100

Recommended
• Some experience with the Linux operating system
• Some experience in database administration

Course based on software release
• SAP HANA 2.0 SPS03

Content
• This course is the best starting point to learn about SAP HANA installation, update, configuration and system administration.
• The course is independent from the SAP NetWeaver administration world, as it teaches how to perform system administration on the SAP HANA platform. The system administration tools used are native to the SAP HANA platform.
• Throughout the course, you will learn about the following SAP HANA too for installation, update, configuration and system administration.
  – SAP HANA database lifecycle manager (HDBLCM)
  – SAP HANA cockpit 2.0
  – SAP HANA studio
  – SAP HANA HDBSQL command line
• At the end, you will be able to perform all the required daily system administration tasks on the SAP HANA database platform.
• Contents:
  – SAP HANA introduction
  – Installation sizing and OS preparations
  – SAP HANA installation and upgrade/conversion to a multitenant database
  – SAP HANA architecture and deployment options
  – SAP HANA cockpit 2.0 installation, configuration and upgrade
  – SAP HANA Administration tools
  – Post installation steps
  – Database administration tasks using SAP HANA cockpit 2.0
  – Backup and recovery using SAP HANA cockpit 2.0
  – SAP HANA Security
  – User and authorizations

Notes
• In case you need to “deep-dive” on specific subjects, this course can be coherently combined with the other courses in the SAP HANA Curriculum, for example HA201 for High availability and Disaster Tolerance, HA240 for SAP HANA Security and HA250 for database migration toward SAP HANA.
Goals

• This course will prepare you to:
  – Install and configure a high available multi host SAP HANA scale-out database system.
  – Understand what happens to SAP HANA scale-out system during a failure of a slave or master node.
  – Install and configure SAP HANA system replication with the classic setup and the new Active/Active setup.
  – Perform tenant administration tasks like create, start/stop, delete, backup and recovery of a tenant in a multitenant SAP HANA 2.0 database.
  – Understand the SAP HANA python scripts provided by SAP.

Audience

• Database Administrator
• Help Desk/CoE Support
• System Administrator
• Technology Consultant

Prerequisites

Essential
• HA100
• HA200

Recommended
• Some experience with the Linux operating system
• Some experience in database administration

Course based on software release

• SAP HANA 2.0 SPS03

Content

• This course is the best starting point to learn about SAP HANA high availability, disaster tolerance and multitenant capabilities in larger SAP HANA landscapes.
• The course is independent from the SAP NetWeaver administration world, as it teaches how to perform system administration on the SAP HANA platform. The system administration tools used are native to the SAP HANA platform.
• Throughout the course, you will learn about the following advanced SAP HANA administration topics.
  – SAP HANA scale-out and host auto failover.
  – SAP HANA multitenant features
  – SAP HANA system replication between datacenters
  – SAP HANA python scripts provided by SAP
• At the end, you will be able to perform all the required advanced system administration tasks on the SAP HANA database platform.
• Contents:
  – SAP HANA High Availability and Disaster Tolerance
  – SAP HANA multi host scale-out and host auto failover
  – SAP HANA storage and system replication
  – SAP HANA system replication options
  – SAP HANA multitenant features
  – SAP HANA python scripts provided by SAP

Notes

• In case you need to "deep-dive" on specific subjects, this course can be coherently combined with the other courses in the SAP HANA Curriculum, for example HA240 for SAP HANA Security and HA250 for database migration toward SAP HANA.
HA215 SAP HANA 2.0 SPS03 – Using Monitoring and Performance Tools

Goals
• This course will prepare you to:
  – Use the SAP HANA cockpit to perform emergency trouble shooting, the SAP HANA traces to investigate for costly statements and to setup SAP HANA Workload Management and SAP HANA Capture and Replay tools.

Audience
• Database Administrator
• Help Desk/CoE Support
• System Administrator
• Technology Consultant

Prerequisites
Essential
• HA200 - SAP HANA 2.0 SPS03 - Installation and Administration
• Basic experience with the Linux operating system

Recommended
• HA100 - SAP HANA 2.0 SPS03 – Introduction
• HA150 - SAP HANA 2.0 SPS03 - SQL and SQLScript for SAP HANA

Course based on software release
• SAP HANA 2.0 SPS03
• SAP HANA Cockpit 2.0 SPS06

Content
• This course is the best starting point to learn about the SAP HANA Monitoring and Performance Tools.
• Contents:
  • Emergency Analysis and Troubleshooting using SAP HANA cockpit 2.0
    – Handling System Offline Situations
    – Handling System Hanging but Reachable Situations
    – Analyzing a Suddenly Slow System
  • Structural System Performance Root Cause Analysis
    – Analyzing Memory Issues
    – Analyzing CPU Issues
    – Analyzing Expensive Statements Issues
    – Analyzing Disk and I/O Issues
  • Proactive Monitoring and Performance Safeguarding
    – Configuring SAP HANA Alerting Framework
    – Setting up SAP HANA Workload Management
    – Using SAP HANA Capture and Replay

Notes
• In case you need to broaden your knowledge on end to end performance analysis where you have SAP NetWeaver ABAP Application Server (such as SAP Business Warehouse or SAP Business Suite) on SAP HANA system, this course can be coherently combined with ADM315 AS ABAP Performance Analysis.
HA240 SAP HANA 2.0 SPS03 - Authorizations, Scenarios & Security Requirements

Goals
• This course will prepare you to:
  – Work on authorizations and security on the SAP HANA Platform.

Audience
• Security Administrator
• System Administrator

Prerequisites
Essential
• Basic understanding of SAP HANA functionalities and scenarios

Recommended
• HA100

Course based on software release
• SAP HANA 2.0 SPS03

Content
• The aim of this course is to prepare the student to work on authorizations and security on the SAP HANA Platform. The course initially covers system level security including Network and Communication security and Data Storage encryption, then it focuses on user management, authentication, authorizations, and auditing. Specific exercises are proposed, about LDAP Group authorization, User Groups, Data Masking, Authorization trace.
• Some basic concepts of application development on the XS Advanced are introduced since they are required to properly work on authorization roles.
• Table of contents:
  – Unit 01: SAP HANA Overview
  – Unit 02: Network and Communication Security
  – Unit 03: Certificate Management
  – Unit 04: Data Storage Security
  – Unit 05: Object Ownership
  – Unit 06: User Management
  – Unit 07: Authentication and Single Sign-On
  – Unit 08: Elements of application development in XS Advanced
  – Unit 09: Elements of application development in XS Classic (optional)
  – Unit 10: authorizations
  – Unit 11: Analyzing Users and Authorizations
  – Unit 12: Auditing
  – Unit 13: Security for SAP HANA Extended Application Services, class model (XSC, optional)
  – Unit 14: Security for SAP HANA Extended Application Services, advan model (XSA)
  – Unit 15: SAP BW Models in SAP HANA
  – Unit 16: Integration with SAP Business Objects BI 4.X (optional)
  – Unit 17: SAP HANA with ERP or S/4HANA and the Analytics Authorizati Assistant (optional)
  – Unit 18: Integration with SAP GRC (optional)
  – Unit 19: Integration with SAP Identity Management (optional)
• Note: content, which is marked as “optional”, refer to secondary Lesso and Exercises and won’t be covered in this 2 days classroom course (due to lack of time, they mostly cover security on the deprecated XS Classic architecture, plus some overview lessons on related subjects). Nevertheless, we left such contents in the training material, since they could be of interest for a subsequent review by the student.
HA250 SAP HANA 2.0 SPS04 - Database Migration using DMO

Goals
• The Software Update Manager (SUM) is the tool for system maintenance of SAP systems, based on SAP NetWeaver. Therefore, the objective of this course is to enable students to use the option of SUM, the one-step migration procedure (DMO), to migrate to SAP HANA autonomously.
• The course covers the most important tasks for an SAP HANA administrator for the combined update and migration of an SAP system to the SAP HANA database. Furthermore, it provides details about the preparation of the procedure and technical details of the process.

Audience
• Support Consultant
• System Administrator
• Technology Consultant

Prerequisites
Essential
• None

Recommended
• Experience with SAP software maintenance using Software Update Manager (SUM)
• TADM70 SAP System: Operating System and Database Migration

Course based on software release
• SAP HANA 2.0 SPS04

Content
• Getting Familiar with Database Migration Option (DMO)
  – Listing DMO Benefits
  – Explaining DMO Basics
• Preparing Database Migration Option (DMO) Procedure
  – Ensuring DMO Prerequisites are Fulfilled on the Host
  – Configuring SAP Host Agent for DMO
  – Examining the SUM UI
• Configuration of Database Migration Option (DMO) Procedure
  – Performing the DMO Run
  – Listing DMO Procedure Steps
  – Monitoring the Migration
  – Tuning the DMO Downtime
  – Explaining the DMO Release Schedule

Notes
• This course provides step by step exercises how to prepare and perform this kind of migration. The exercises cover the DMO specific steps.
• After this course the participants are well prepared for a successfully migration to SAP HANA.
• The content of this course HA250 is also contained in course ADM328.