



## Graduate Course Syllabus

### IT 675: Data Warehousing Concepts and Design

Center: Online

#### Course Prerequisites

IT 650 or permission of instructor

#### Course Description

This course presents the principles of design, development, and recommended implementation strategies of a Data Warehouse DBMS based on the dimensional modeling architecture. Data warehouse management issues will also be examined, along with an introduction to data mining as a tool for analytical decision support. Students will design and recommend implementation strategies of a data warehouse architecture.

#### Course Outcomes

- Assess the effectiveness of data warehouses and database management systems in supporting specific business goals and decision making
- Design architectures for data warehouses that address business problems and increase business opportunity
- Construct plans for implementing a data warehouse that meet stakeholder needs and business specifications
- Analyze constraints and opportunities associated with integrating data from various systems into a data warehouse
- Develop strategies for ensuring data integrity, accuracy, and quality by employing appropriate data scrubbing and integration techniques

#### Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through the [SNHU Online Bookstore](#) rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the IT Service Desk, your advisor, and the instructor can provide you with support if you have problems.

*The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling*

Kimball, Ralph

John Wiley & Sons, Inc.

3rd Edition

2013

ISBN: 978-1-118-53080-1

### Diversity, Equity, and Inclusion

As indicated in our core values, SNHU is committed to “embrace diversity where we encourage and respect diverse identities, ideas, and perspectives by honoring difference, amplifying belonging, engaging civilly, and breaking down barriers to bring our mission to life.”

This may or will be reflected in SNHU’s curriculum as we embrace and practice diversity, equity, and inclusion (DEI) to provide the most transformative experience for our students, faculty, and staff. Because topics pertaining to DEI can be sensitive, please remember that embodying and practicing diversity, equity, and inclusion is one of our core values that you will encounter throughout the academic experience. In higher education, we are expected to think and engage critically. Use a growth mindset to embrace the diverse readings, course assignments, and experiences of your peers and faculty.

For more information about DEI at SNHU, please visit our website at the [Office of Diversity and Inclusion](#).

### Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor’s answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours. Instructors will post grades and feedback (as applicable) within seven days of an assignment’s due date, or within seven days of a late submission.

### Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	9	30	270
Presentation Assignments	2	50	100
Short Paper	1	30	30
Final Project			
Milestone One	1	100	100
Milestone Two	1	100	100
Milestone Three	1	100	100
Final Project Part I	1	150	150
Final Project Part II	1	150	150
			<b>Total Course Points: 1,000</b>

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

## University Grading System: Graduate

Grade	Numerical Equivalent	Points
A	93–100	4.00
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3.00
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2.00
F	0–72	0.00
I	Incomplete	
IF	Incomplete/Failure *	
W	Withdrawn	

\* Please refer to the [policy page](#) for information on the incomplete grade process.

### Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

### Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	An Introduction to Data Warehousing and Data Modeling <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 1 and 2 1-1 Discussion: Data Warehouses vs. Databases 1-2 Final Project Review
2	Part I: Data Warehousing in Retail and Inventory <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 3 and 4 2-1 Discussion: Streamlining Business Operations with Data Warehousing 2-2 Final Project Milestone One: Data Warehouse Pros and Cons Analysis
3	Part II: Data Warehousing in Order Management and Accounting <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 6 and 7 3-1 Discussion: Data Warehousing in Order Management and Accounting Systems 3-2 Presentation Assignment: Best Practices for Data Integrity

Module	Topics and Assignments
4	Part III: Data Warehousing in Customer Relationship Management and Human Resources Systems <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 8 and 9 4-1 Discussion: CRM Systems in the Insurance Industries 4-2 Final Project Milestone Two: Implementation Plan
5	Part IV: Data Warehousing in Electronic Commerce and the Insurance Industries <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 15 and 16 5-1 Discussion: Insurance Companies and Large Data Sets 5-2 Presentation Assignment: The Evolution of Enterprise Data Warehousing
6	Data Warehousing and Business Intelligence Lifecycles <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapter 17 6-1 Discussion: Data Warehousing and Business Intelligence Life Cycles 6-2 Final Project Milestone Three: Data Integrity and Scrubbing Portion
7	Dimensional Data Modeling for Data Warehouses <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapter 18 7-1 Discussion: The Importance of Data Modeling 7-2 Short Paper: The Kimball Group 7-3 Continue Work on Final Project
8	Data Warehouse: Data Extraction, Transformation, and Loading <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapters 19 and 20 8-1 Discussion: Extracting, Loading, and Transforming (ETL) Data 8-2 Final Project Part I: Executive Presentation
9	Big Data Concepts <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapter 21 9-1 Discussion: Reflection and Challenges 9-2 Final Project Part II: Technical Proposal
10	Data Warehousing for Education and Course Reflection <i>The Data Warehouse Toolkit: The Definitive Guide to Dimensional Modeling</i> , Chapter 13 10-1 Discussion: Reflection and Course Recap (Non-Graded)

### Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a graded assignment/discussion during the first week of class, the student is automatically dropped from the course for non-participation. Review the [full attendance policy](#).

### Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the [full late assignment policy](#).

### SNHU Student Handbook

Review the [student handbook](#).

### **ADA/504 Compliance Statement**

Southern New Hampshire University (SNHU) is dedicated to providing equal access to individuals with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and with Title III of the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

SNHU prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. The university has adopted this policy to provide for prompt and equitable resolution of complaints regarding any action prohibited by Section 504, the ADA, or the ADAAA.

For questions about **support services, documentation guidelines, general disability issues, or pregnancy accommodations**, please visit the [Online Accessibility Center](#) (OAC).

As a student, you must complete an interactive intake process, with supporting documentation, in order to be granted accommodations. Once reasonable accommodations are approved by the OAC, you will receive an accommodations letter. You are then responsible for sharing the letter with your instructor. Accommodations are not retroactive.

If you feel you've been subject to discrimination on the basis of disability, by any party, you may file a complaint or grievance. For more information on the ADA/504 Grievance Policy, go to the [Disability and Accessibility Services](#) website.

### **Academic Honesty Policy**

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the [full academic honesty policy](#).

### **Copyright Policy**

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the [full copyright policy](#).

### **SNHU Withdrawal Policy**

Review the [full withdrawal policy](#).

### **Southern New Hampshire University Policies**

More information about SNHU policies can be found on the [policy page](#).