Artificial intelligence

Artificial Intelligence Structures and Strategies for Complex Problem Solving, Fifth Edition, GEORGE F LUGER.

Diploma chapters' name

Ch2 The Predicate Calculus
Ch3 Structures and Strategies for State Space Search
Ch4 Heuristic Search
Ch5 Stochastic Methods

Master chapters' name

Ch6 Building Control Algorithms for State Space Search
Ch7 Knowledge representation
Ch8 Strong Method Problem Solving
Ch9 Reasoning in Uncertain Situations

Doctoral chapters' name

Ch10 Machine Learning: Symbol-Based
Ch11 Machine Learning: Connectionist
Ch12 Machine Learning: Social and Emergent
Ch13 Automated Reasoning
Operating system

Operating system concepts, galvin, 9th edition

Diploma chapters' name
Ch2   Operating System Structures
Ch3   process
Ch4   thread
Ch5   Process Synchronization

Master chapters' name
Ch6   CPU Scheduling
Ch7   Deadlocks
Ch8   main memory
Ch9   Virtual memory

Doctoral chapters' name
Ch12  File –System Implementation
Ch13  I/O Systems
Ch14  Protection
Ch15  Security
Data structure
Data Structures and Algorithm Analysis in C++, Mark Allen Weiss

Diploma chapters' name
Ch1 Programming: A General Overview
Ch2 Algorithm Analysis
Ch3 Elementary data structures: stacks, queues, linked lists
Ch4 Trees

Master chapters' name
Ch5 Hash tables
Ch6 Priority Queues (Heaps)
Ch7 Sorting
Ch8 The Disjoint Sets Class

Doctoral chapters' name
Ch9 Graph Algorithms
Ch10 Algorithm Design Techniques
Ch11 Amortized Analysis
Ch12 Advanced Data Structures and Implementation
Database design
FUNDAMENTALS OF Database Systems, SIXTH EDITION
Ramez Elmasri

**Diploma chapters' name**
Ch1  Databases and Database Users
Ch2  Database System Concepts and Architecture

**Master chapters' name**
Ch3  The Relational Data Model and Relational Database Constraints
Ch7  Data Modeling Using the Entity-Relationship (ER) Model
Ch8  The Enhanced Entity-Relationship (EER) Model

**Doctoral chapters' name**
Ch11  Object and Object-Relational Databases
Ch24  Database Security
Ch25  Distributed Databases
System analysis
SYSTEM ANALYSIS AND DESIGN John Wiley & Sons, Inc.
Fifth Edition, ALAN DENNIS

**Diploma chapters' name**
Ch1 THE SYSTEMS ANALYST AND INFORMATION SYSTEMS DEVELOPMENT
Ch2 PROJECT SELECTION AND MANAGEMENT

**Master chapters' name**
Ch5 PROCESS MODELING
Ch6 DATA MODELING

**Doctoral chapters' name**
Ch10 PROGRAM DESIGN
Ch11 DATA STORAGE DESIGN
Computer security

CRYPTOGRAPHY AND NETWORK SECURITY PRINCIPLES AND PRACTICE FIFTH EDITION William Stallings

Diploma chapters' name
Ch1 OVERVIEW: COMPUTER SECURITY CONCEPTS
Ch2 CLASSICAL ENCRYPTION TECHNIQUES
Ch3 BLOCK CIPHERS AND THE DATA ENCRYPTION STANDARD
Ch4 BASIC CONCEPTS IN NUMBER THEORY AND FINITE FIELDS

Master chapters' name
Ch5 ADVANCED ENCRYPTION STANDARD
Ch6 BLOCK CIPHER OPERATION
Ch7 PSEUDORANDOM NUMBER GENERATION AND STREAM CIPHERS
Ch8 INTRODUCTION TO NUMBER THEORY

Doctoral chapters' name
Ch9 PUBLIC-KEY CRYPTOGRAPHY AND RSA
Ch10 OTHER PUBLIC-KEY CRYPTOSYSTEMS
Ch11 CRYPTOGRAPHIC HASH FUNCTIONS
Ch12 MESSAGE AUTHENTICATION CODES
logic design


Diploma chapters' name

Ch1 Introduction
Ch2 Combinational Systems

Master chapters' name

Ch3 The Karnaugh Map
Ch4 Function Minimization Algorithms

Doctoral chapters' name

Ch5 Designing Combinational Systems
Ch6 Analysis of Sequential Systems