



ORACLE AT OCC

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Have you heard about

- Database?
- Database Administrator?
- Database analyst?
- Database Developer?
- Oracle database management system?
- Any other database management system?
- How important is database nowadays?

Oracle Academy & Oracle University



Oracle Academy (Formerly OAI):

<https://academy.oracle.com/>

Oracle University:

<http://education.oracle.com/>

Introduction

- According to the [U.S. Department of Labor](http://www.bls.gov/) (<http://www.bls.gov/>), the Bureau of Labor Statistics generated a report in 2008 (<http://www.bls.gov/oco/cg/cgs033.htm>), stating that computer related jobs, for the years 2008-2018, are among the **highest occupations in demand**
- [Computer network, Systems, and Database Administrators](#) are among the **highest in computer related jobs**

Database Administration

- *Database administrators* work with **database management software** and determine ways to **store, organize, analyze, use, and present** data
- They identify user needs and set up new computer databases

What do Database Administrators Do?

- **Integrate** data from old systems into a new system
- **Test** and coordinate modifications to the system when needed
- **Troubleshoot** problems when they occur
- **Ensure** the **performance** of the system
- **Add** new users to the system
- **Plan** and coordinate **security** measures

What do Database Developers Do?

- Also called *database designers* or *database analysts*
- Design & implement the database
 - Create database **objects** (Tables, Views, Indexes, ...)
 - Fill the **tables** of the database with the required data
 - Build **Queries** to get information from the database
 - Build **Constraints** to enforce rules to have a consistent and non-redundant data in the database
 - Create **Procedures & Functions** that can be invoked by the system or the user
 - Create **Triggers** that are invoked by some events and that enforce some actions or rules to keep the database in tact

Certification

- Improve your **chances for employment**
- Help you **maintain adequate skill levels** throughout your career

Employment

- Database Administrators are employed in almost every major corporation and organization, including
 - Government
 - Manufacturing
 - Insurance
 - Financial institutions
 - Education
 - Internet-based organizations
 - Service providers
 - Website hosting
 - Search portals (such as Google)

Outlook

- Employment in these fields is projected to grow **much faster than the average** for all occupations
- **286,600 new jobs** will be added over the 2008-18 decade
- **Excellent job prospects** are expected
- According to the California Labor Market Information ([2008-2018 projection](#)),
 - The percent of growth of database administrators jobs is **57.3%**

Occupation	Employment Number, 2008	Employment Percent, 2008	Percent Change, 2008-18
Database administrators	18.8	1.3	57.3

Earning

- According to the [BLS Employment Statistics](#) and California Labor Market Information ([2008-2018 projection](#)), median wages are **over \$70,000**

Occupation	Employment	Mean Wages Hourly	Mean Wages Annual	Median Hourly
Database administrators	108,080	35.72	74,290	34.40

Occupation	Employment	Mean wages Hourly	Mean Wages Annual	Median Hourly
Computer and information scientists, research	26,130	50.66	105,370	48.83
Computer programmers	367,880	35.91	74,690	34.1
Computer software engineers, applications	495,500	43.35	90,170	42.06
Computer software engineers, systems software	385,200	46.45	96,620	44.94
Computer support specialists	540,560	22.77	47,360	21.3
Computer systems analysts	512,720	38.67	80,430	37.06
Database administrators	108,080	35.72	74,290	34.4
Network and computer systems administrators	338,890	34.1	70,930	32.55
Network systems and data communications analysts	226,080	36.81	76,560	35.22
Computer specialists, all other	195,890	37.5	78,010	37.02

Certification Options

- Oracle Database Certification Program
 - Courses are **intensive**, given usually in 5 days or less
 - Very **expensive**
- Orange Coast College Certification Program
 - Part of the **Oracle Academic Initiative (OAI)**
 - Courses are **hands-on**, 8 or 16 weeks
 - Very **affordable** and are offered in **more details**
 - The only College in central OC offering this
 - Prepares you with the **knowledge required for taking Oracle exams**, if you intend to take them

Samples of Oracle University Classes

- Source (March 6, 2011):
<http://education.oracle.com/>
 - Education
 - Training format: Classroom
 - Browse Product Categories
- Examples of Oracle Database Certification Program (Instructor lead, 5 days)
 - Introduction to SQL: **US\$ 3,000**
 - New Features for Administrators DBA: **US\$ 3,000**
 - Administration Workshop II DBA: **US\$ 3,000**
 - Performance Tuning DBA: **US\$ 3,000**

Oracle Classes at OCC

- **Quality teaching** by professional instructors
- All classes are **hands-on** with **up-to-date** software and computers
- **Affordable**. Cost per unit is the same as any other class at OCC (Spring 2011 unit cost is \$26.)
 - 2-Unit Class: **\$52.00**
 - 3 Units class: **\$78.00**
 - 4 units class: **\$104.00**
- **40% voucher discounts** for Oracle University exams
- **No pre-requisites**
 - You can take more than one class at the same time

Database Certification Programs at OCC

- Two major paths:
 - **Database Administration**
 - **Database Developer**
- Brochure:
 - http://www.orangecoastcollege.edu/media/documents/catalog/OracleCertificateBrochure_10_21_2010.pdf
- Department's website:
 - <http://www.orangecoastcollege.edu/NR/rdonlyres/98819087-264E-4A90-8F80-4F96D65D92B5/0/computerinfosys.pdf>
- Catalog (Page 87):
 - <http://www.orangecoastcollege.edu/cmsocweb/documents/catalog/Catalog-2010-11.pdf>

OCC Database Administration Certification Classes

- Certificate of Completion
- Requirements: **15 units total**
 - Mandatory classes (11 Units)

Course Name	Discipline	Course Number	Units
Intro to Database Concepts	CIS	A 182	4
Oracle Database Admin I	CIS	A 187	4
Oracle Database Admin II	CIS	A 188	3

- Optional Classes
 - (Choose 4 units)

Course Name	Discipline	Course Number	Units
PC Concepts: Linux/Cert Prep	CIS	A 106	4
Oracle SQL Programming	CIS	A 183	4
Oracle PL/SQL Programming	CIS	A 184	3
SQL Tuning	CIS	A 178	2
PL/SQL II	CIS	A 179	2

OCC Database Developer Certification Classes

- Certificate of Completion
- Requirements: **15 units total**
 - Mandatory classes (11 Units)

Course Name	Discipline	Course Number	Units
Intro to Database Concepts	CIS	A 182	4
Oracle SQL Programming	CIS	A 183	4
Oracle PL/SQL Programming	CIS	A 184	3

– Optional Classes

- (Choose 4 units)

Course Name	Discipline	Course Number	Units
SQL Tuning	CIS	A 178	2
PL/SQL II	CIS	A 179	2
Oracle Forms & Reports Developer	CIS	A 185	4
Oracle Database Admin I	CIS	A 187	4

Questions?

- Pre-requisites?
- Can classes be taken concurrently?
- How much typing is involved?
- Which semesters and time of day are classes offered?
- Does having a certificate help job opportunities?
- Can you get a job without bachelor degree and only with the Oracle certificate?

OCC Database Administration Certificate

Learning Outcomes

Students will be able to:

1. **Design** and develop a data Model
2. **Create, manage, backup and recover** an Oracle database
3. **Monitor** database **performance** using Oracle-supplied administration tools and SQL

OCC Database Developer Certification

Learning Outcomes

Students will be able to:

1. Design and develop a data model
2. Use SQL to retrieve data, manipulate and manage database objects
3. Create, execute and maintain PL/SQL modules

Oracle Database Certification Program

- Oracle Database 11g & 10g
 - Database Administration
 - Application Development
- Oracle Database 9i
 - Database Administration
- MySQL
- Partner Database Specializations
 - Implementation
- Source:
http://education.oracle.com/pls/web_prod-plq-dad/db_pages.getpage?page_id=143

Oracle Database Certification Links

- **Oracle Database 11g**
 - **Database Administration**
 - [Oracle Database 11g Administrator Certified Associate](#)
 - [Oracle Database 11g Administrator Certified Professional](#)
 - [Oracle Database 11g Administrator Certified Master](#)
 - [Oracle Database 11g: Performance Tuning](#)
 - [Oracle Certified Expert, Oracle Real Application Clusters 11g and Grid Infrastructure Administrator](#)
 - [Oracle Database: SQL Certified Expert](#)
 - **Application Development**
 - [Oracle Application Express Developer Certified Expert](#)
- **Oracle Database 10g**

Oracle Database Certification Links

- **Oracle Database 10g**

- **Database Administration**

- [Oracle 10g: Managing Oracle on Linux Certified Expert](#)
 - [Oracle Database 10g Real Applications Clusters Administrator Certified Expert](#)
 - [Oracle Database: SQL Certified Expert](#)
 - [Oracle Database 10g Administrator Certified Associate](#)
 - [Oracle Database 10g Administrator Certified Professional](#)
 - [Oracle Database 10g Administrator Certified Master](#)

- **Application Development**

- [Oracle Application Express Developer Certified Expert](#)

Oracle Database Certification Links

- **Oracle Database 9i**
 - **Database Administration**
 - [Oracle9i Database Administrator Certified Associate](#)
 - [Oracle9i Database Administrator Certified Professional](#)

Oracle Database Certification Links

- **MySQL**

- [Oracle Certified Associate, MySQL 5.0/5.1/5.5](#)
- [Oracle Certified Professional, MySQL 5.0 Developer](#)
- [Oracle Certified Professional, MySQL 5.0 Database Administrator](#)
- [Oracle Certified Expert, MySQL 5.1 Cluster Database Administrator](#)

Oracle Database Certification Links

- **Partner Database Specializations**

- **Implementation**

- [Oracle Database 11g Certified Implementation Specialist](#)
 - [Oracle Database 11g Security Certified Implementation Specialist](#)
 - [Data Warehousing 11g Certified Implementation Specialist](#)
 - [Oracle Exadata 11g Certified Implementation Specialist](#)
 - [Oracle Enterprise Manager 11g Certified Implementation Specialist](#)
 - [Oracle Enterprise Manager Application Quality Management 11g Certified Implementation Specialist](#)