

**PROGRAM APPROVAL APPLICATION**  
**NEW or SUBSTANTIAL CHANGE or LOCALLY APPROVED**  
**(This application may not exceed 3 pages)**

**Fill In Form**

Database Management  
 Proposed Program Title

Fall 2018  
 Projected Program Start Date

El Camino College  
 College

El Camino Community College  
 District

**Contact Information**

Dr. Virginia Rapp  
 Voting Member

Dean, Business Division  
 Title

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 Phone Number

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 Email

**Goal(s) of Program (Check all that apply):**

- Career Technical Education (CTE)       Transfer       Other

**Type of Program (Check all that apply):**

- Certificate of Achievement 12-17 (or 17-27 quarter) units       Certificate of Achievement 18+ semester (or 27+ quarter) units  
 Associate of Science Degree       Associate of Arts Degree

**Reason for Approval Request (Check One):**

- New Program       Substantial Change       Locally Approved

**Program Information**

0707 Recommended [Taxonomy of Program \(TOP\) Code](#)

\_\_\_\_\_ Units for Major-Degree

\_\_\_\_\_ Total Units for Degree

23 Required Units-Certificate

**Written Form**

**1. Insert the description of the program as it will appear in the catalog. (See PCAH pp. 142 and 170)**

The Database Management Certificate is designed for students who wish to learn how to effectively design and develop relational databases, capture, store, retrieve and analyze data, and acquire programming skills in relational database management systems (RDBMS) and structured query language (SQL). The courses included in the certificate provide a foundation in database theory and design along with topics like data mining, “big data” and data analytics. Successful students will be prepared to apply for entry-level positions in government, business and industry as data analysts, database designers, database developers, database administrators and database programmers.

**2. Provide a brief rationale for the program.**

The Database Management Certificate of Achievement is designed to coordinate the entire sequence of courses required to prepare students with the technical knowledge and skills they will need to apply for, and be successful in many of today's database related jobs. Candidates for this certificate would include students wishing to transfer and obtain a four-year degree in Computer Information Systems, entry level employees as well as established workers in need of upgrading their database skills.

The CIS Department's advisory board unanimously agreed with the need for a database certificate in April of 2014, and they recommended that courses in database design (CIS 29), a general course in SQL programming (CIS 80), and a programming class where a database is used (CIS 16 or CIS 134) should be included.

In April of 2015 the components of the SQL Programming course were reviewed and agreed upon by the advisory board, and at our 2016 meeting, the board agreed with all of the components for the complete Database Management Certificate.

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**3. Summarize the Labor Market Information (LMI) and employment outlook (including citation for the source of the data) for students exiting the program. (See PCAH pp. 85-88, 136, 147, 148, 165, 168, and 176)**

**Employment Outlook/Labor Market Information**

Nationally, the "employment of database administrators (DBAs) is projected to grow 11 percent from 2014 to 2024, faster than the 7 percent average for all occupations. Growth in this occupation will be driven by the increased data needs of companies in all sectors of the economy." (<https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm#tab-6>).

"The increasing popularity of database-as-a-service, which allows database administration to be done by a third party over the Internet, could increase the employment of DBAs at cloud computing firms in the data processing, hosting, and related services industry". Employment of DBAs in this segment of the industry as well as computer systems design and related services are both projected to grow 26 percent from 2014 to 2024. (<https://www.bls.gov/ooh/computer-and-information-technology/database-administrators.htm#tab-6>).

The most recent numbers available from the Bureau of Labor Statistics indicates that the national mean annual wage for Database Administrators as \$84,250. (<https://www.bls.gov/oes/current/oes151141.htm#nat>).

Currently, California is first with the highest number of jobs (12,040) for Database Administrators (<https://www.bls.gov/oes/current/oes151141.htm#st>), and third among all states in annual mean wage (\$94,510) for Database Administrators (<https://www.bls.gov/oes/current/oes151141.htm#st>).

Continued growth for the state is also predicted for the period 2014 – 2024 with a forecasted increase for Database Administrators of 24.0% ([http://www.labormarketinfo.edd.ca.gov/file/occproj/la\\$occproj.xlsx](http://www.labormarketinfo.edd.ca.gov/file/occproj/la$occproj.xlsx)).

Locally, the Los Angeles/Long Beach/Glendale area is eighth of all metropolitan areas measured by employment levels, and has one of the highest annual mean wages (<https://www.bls.gov/oes/current/oes151141.htm>).

Although not quite as robust as the California rate, the local area (Los Angeles/Long Beach/Glendale) is predicted to show a 14.2% increase in Database Administrator jobs for the period 2014 – 2024 ([http://www.labormarketinfo.edd.ca.gov/file/occproj/la\\$occcproj.xlsx](http://www.labormarketinfo.edd.ca.gov/file/occproj/la$occcproj.xlsx)).

**4. List similar programs at other colleges in the Los Angeles and Orange County Region which may be adversely impacted. (There is space for 10 listings, if you need more, please contact [laocrc@rscsd.edu](mailto:laocrc@rscsd.edu))**

| College                            | Program   | Who You Contacted        | Outcome of Contact |
|------------------------------------|---|--------------------------|--------------------|
| <u>West L.A. College</u>           | <u>Business Application and Database Management Certificate of Achievement</u>      | <u>Mark Pracher</u>      | <u>Approval</u>    |
| <u>Santa Monica College</u>        | <u>Database Application Developer Certificate</u>                                   | <u>Patricia Ramos</u>    | <u>Approval</u>    |
| <u>Long Beach City College</u>     | <u>Database Management Certificate</u>  | <u>Mollie Smith</u>      | <u>Approval</u>    |
| <u>L.A. City College</u>           | <u>1) Database Administration Certificate<br/>2) Database Developer Certificate</u> | <u>Alex Davis</u>        | <u>Approval</u>    |
| <u>Cypress College</u>             | <u>Database Mgmt; Cert. of Achievement</u>  | <u>Steve Donely</u>      | <u>Approval</u>    |
| <u>Irvine Valley College</u>       | <u>Database Certificate of Proficiency</u>  | <u>Barbara Blanchard</u> | <u>Approval</u>    |
| <u>Cerritos College</u>            |   | <u>Nick Real</u>         | <u>Approval</u>    |
| <u>Coastline Community College</u> |   | <u>Nancy Jones</u>       | <u>Approval</u>    |
| <u>East Los Angeles College</u>    |   | <u>Paul De La Cerda</u>  | <u>Approval</u>    |
| <u>Glendale Community College</u>  |   | <u>Jan Swinton</u>       | <u>Approval</u>    |
| <u>Saddleback College</u>          |   | <u>Anthony Teng</u>      | <u>Approval</u>    |
| <u>Santa Ana College</u>           |   | <u>Bart Hoffman</u>      | <u>Approval</u>    |

5. List all courses required for program completion, including core requirements, restricted electives and prerequisites. (There is space for 20 listings, if you need more, please contact [laocrc@rscdd.edu](mailto:laocrc@rscdd.edu)).  
 (See PCAH pp. 143 and 171)

| Courses                             | Course Number  | Course Title                                      | Units    |
|-------------------------------------|----------------|---|----------|
| <u>Computer Information Systems</u> | <u>CIS 13</u>  | <u>Computer Information Systems</u>               | <u>3</u> |
| <u>Computer Information Systems</u> | <u>CIS 18</u>  | <u>Systems Analysis and Design</u>                | <u>3</u> |
| <u>Computer Information Systems</u> | <u>CIS 28</u>  | <u>Database Management Using Microsoft Access</u> | <u>3</u> |
| <u>Computer Information Systems</u> | <u>CIS 119</u> | <u>Computer Security and Forensics</u>            | <u>3</u> |
| <u>Computer Information Systems</u> | <u>CIS 29</u>  | <u>Advanced Database Applications</u>             | <u>3</u> |
| <u>Computer Information Systems</u> | <u>CIS 134</u> | <u>ASP.NET with C# Business Web Programming</u>   | <u>4</u> |
| <u>Computer Information Systems</u> | <u>CIS 80</u>  | <u>Database Programming</u>                       | <u>4</u> |

6. Include any other information you would like to share.