

## Database Management & Development

### FACULTY

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<http://www.bates.ctc.edu/Database>

From retail to financial services, healthcare to automotive, today's businesses are computer and information-driven, making database developers an important position in most industries. Database developers organize and manage information for corporations and organizations large and small. Students acquire computer and software development skills and prepare for high-demand Oracle certifications. Career opportunities can include data analyst, database administrator, database application developer, database resource specialist and help desk analyst. The program also provides extended learning opportunities for persons previously or currently employed in related professions.

### Associate of Technology Degree: 100 credits

#### Database Management & Development

Completion Range: 12-19 Months

		<u>Credits/Hours</u>
CST	091 Occupational Human Relations	1/17
CSAT	092 Occupational Communications	5/85
CIS	101 Computer Concepts and Technologies	3/50
CSAT	110 Analyzing Problem Solving & Concepts	5/85
CAS	106 Introduction to Spreadsheets	4/65
CAS	116 Introduction to Databases	4/65
CIS	108 Fundamentals of UNIX	4/70
DBA	112 DBA Fundamental I	5/85
DBA	131 Database Programming I	5/85
CIS	201 SQL I	5/85
DBA	204 Data Modeling/Relational Database Design	5/85
DBA	212 DBA Fundamentals II	5/85
DBA	216 DBA Fundamentals III	5/85
DBA	231 Database Programming II	5/85
CPROG	211 Programming in C Language I	5/85
CPROG	212 Programming in C Language II	5/85
CS &	131 Computer Science I C++	5/85
CPROG	222 Programming in C++ Language II	5/85
CS &	141 Computer Science I JAVA	5/85
CPROG	232 Programming in JAVA II	5/85
CPROG	241 Programming in a Client/Server Environment I	5/85
CPROG	242 Programming in a Client/Server Environment II	5/85
SDEV	205 Visual Basic dot Net I	5/85
SDEV	206 Visual Basic dot Net II	5/85
SDEV	223 C-Sharp I	5/85
SDEV	224 C-Sharp II	5/85
CSAT	271 Internet Development I	5/85
CSAT	272 Internet Development II	5/85
CSWD	235 Database-driven Web Sites I	5/85
CSWD	237 Database-driven Web Sites II	5/85
CIT	121 Project Management	5/85
CSAT	291 Work-Based Learning Experience	15/250
CSAT	292 Capstone Project	15/250

#### General Education Requirements

	<u>Credits</u>
100-level or> Human Relations – HREL, PSYCH, SOC or CMST	5
100-level or> Communications – ENGL or CMST	5
100-level or> Mathematics – MATH	5

### Associate of Applied Science-T Degree: 105 credits

#### Database Management & Development

Completion Range: 12-19 Months

		<u>Credits/Hours</u>
CST	091 Occupational Human Relations	1/17
CSAT	092 Occupational Communications	5/85
CIS	101 Computer Concepts and Technologies	3/50
CSAT	110 Analyzing Problem Solving & Concepts	5/85
CAS	106 Introduction to Spreadsheets	4/65
CAS	116 Introduction to Databases	4/65
CIS	108 Fundamentals of UNIX	4/70
DBA	112 DBA Fundamentals I	5/85
DBA	131 Database Programming I	5/85
CIS	201 SQL I	5/85
DBA	204 Data Modeling/Relational Database Design	5/85
DBA	212 DBA Fundamentals II	5/85
DBA	216 DBA Fundamentals III	5/85
DBA	231 Database Programming II	5/85
CPROG	211 Programming in C Language I	5/85
CPROG	212 Programming in C Language II	5/85
CS&	131 Computer Science I C++	5/85
CPROG	222 Programming in C++ Language II	5/85
CS &	141 Computer Science I JAVA	5/85
CPROG	232 Programming in JAVA II	5/85
CPROG	241 Programming in a Client/Server Environment I	5/85
CPROG	242 Programming in a Client/Server Environment II	5/85
SDEV	205 Visual Basic dot Net I	5/85
SDEV	206 Visual Basic dot Net II	5/85
SDEV	223 C-Sharp I	5/85
SDEV	224 C-Sharp II	5/85
CSAT	271 Internet Development I	5/85
CSAT	272 Internet Development II	5/85
CSWD	235 Database-driven Web Sites I	5/85
CSWD	237 Database-driven Web Sites II	5/85
CSAT	291 Work-Based Learning Experience	15/250
CSAT	292 Capstone Project	15/250

#### General Education Requirements

	<u>Credits</u>
100-level or> Humanities (ASL, Art or History)	5
100-level or> Social Sciences (Sociology or Psychology)	5
MATH 146 Introduction to Statistics	5
MATH 141 Pre-Calculus I	5
ENGL& 101 English Composition I	5

Bates currently has articulation agreements with four colleges to provide educational options for students seeking a four-year degree in the following career fields: database management, software development, web developer, and fire protection. Please refer to Chapter 1, Degrees & Certificates, in the front of this catalog for more information.

## Database Management & Development (continued)

### FACULTY

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<http://www.bates.ctc.edu/Database>

### Certificate of Competency: 85 credits

#### Database Technologies

			<u>Credits/Hours</u>
Completion Range: 11-16 Months			
CIS	101	Computer Concepts and Technologies	3/50
CSAT	110	Analyzing Problem solving & Concepts	5/85
CAS	106	Introduction to Spreadsheets	4/65
CAS	116	Introduction to Databases	4/65
CIS	108	Fundamentals of UNIX	4/65
CST	091	Occupational Human Relations	1/17
CIS	201	SQL I	5/85
DBA	112	DBA Fundamentals I	5/85
DBA	131	Database Programming I	5/85
DBA	204	Data Modeling/Relational Database Design	5/85
DBA	212	DBA Fundamentals II	5/85
DBA	216	DBA Fundamentals III	5/85
SDEV	205	Visual Basic dot Net I	5/85
SDEV	206	Visual Basic dot Net II	5/85
CPROG	211	Programming in C Language I	5/85
CPROG	212	Programming in C Language II	5/85
CS&	141	Computer Science I JAVA	5/85
CPROG	232	Programming in JAVA I	5/85
CPROG	241	Programming in a Client/Server Environment I	5/85
CPROG	242	Programming in a Client/Server Environment II	5/85
CSAT	292	Capstone Project	15/250

#### General Education Requirements

	<u>Credits</u>
90-level or> Human Relations – HREL, PSYCH, SOC or CMST	3
90-level or> Communications – ENGL or CMST	3
90-level or> Mathematics – MATH	3

90-level credit units apply toward meeting certificate requirements, but do not apply toward degree requirements.

### Certificate of Training: 39 credits

#### Database Technologies

			<u>Credits/Hours</u>
Completion Range: 5-6 Months			
DBS	091	Occupational Human Relations	2/35
DBS	092	Occupational Communications	2/35
CIS	108	Fundamentals of UNIX	4/70
CIS	201	SQL I	5/85
DBA	112	DBA Fundamentals I	5/85
DBA	204	Data Modeling and Relational Database Design	5/85
DBA	212	DBA Fundamentals II	5/85
DBA	216	DBA Fundamentals III	5/85
CPROG	205	Visual Basic Desktop Applications I	5/85
CPROG	206	Visual Basic Desktop Applications II	5/85
CPROG	211	Programming in C Language I	5/85
CPROG	212	Programming in C Language II	5/85
CPROG	231	Programming in JAVA I	5/85
CPROG	232	Programming in JAVA II	5/85
CPROG	241	Programming in a Client/Server Environment I	5/85
CPROG	242	Programming in a Client/Server Environment II	5/85
DBA	131	Database Programming I	5/85
CSWD	235	Database-driven Web Sites I	5/85