

SAN BERNARDINO COMMUNITY COLLEGE DISTRICT

TO: Board of Trustees  
FROM: Bruce Baron, Chancellor  
REVIEWED BY: Dr. Gloria Fisher, President, SBVC  
PREPARED BY: Dr. Haragewen Kinde, Vice President, Instruction, SBVC  
DATE: April 9, 2015  
SUBJECT: Consideration of Approval of Curriculum - SBVC

RECOMMENDATION

It is recommended that the Board of Trustees approve the SBVC curriculum modifications.

OVERVIEW

The courses, certificates, and degrees at SBVC are continually being revised and updated to reflect and meet student needs.

ANALYSIS

These courses, certificates, and degrees have been approved for addition, modification, and deletion by the Curriculum Committee of the Academic Senate and will be included in the 2015-2016 College Catalog.

BOARD IMPERATIVE

II. Learning Centered Institution for Student Access, Retention, and Success.

FINANCIAL IMPLICATIONS

None.

**SAN BERNARDINO VALLEY COLLEGE**  
**SUBMITTED FOR BOARD OF TRUSTEE APPROVAL**  
April 9, 2015

**CONTENT REVIEW**  
**NO CHANGES TO COURSE ID, TITLE, HOURS, UNITS, REQUISITES, DESCRIPTIONS**

BIOL 100

**Rationale:** Content Review.

**Effective:** FA 16

**NEW COURSE**

**Course ID:** BIOL 141

**Course Title:** Genetics

**Units:** 3

**Lecture:** 3 contact hour(s) per week

48 - 54 contact hours per semester

**Prerequisite:** ENGL 015 or eligibility for ENGL 101 or ENGL 101H as determined by the SBVC assessment process.

**Catalog Description:** This course is a general introduction to the fundamentals of human heredity. Topics include patterns of inheritance, the structure of DNA and its function, the role mutations play in genetic diseases and cancer, the interaction between genes and the environment, and recent advances in biotechnology and its impact on society.

**Schedule Description:** This course is a general introduction to the fundamentals of human heredity. Topics include patterns of inheritance, the structure of DNA and its function, the role mutations play in genetic diseases and cancer, the interaction between genes and the environment, and recent advances in biotechnology and its impact on society.

**Rationale:** This course is necessary for all students going into medical and physician assistant programs. Meets requirements for professionals entering into Allied Health Schools.

**Effective:** FA16

**MODIFY COURSE**

<b>COURSE ID</b>	<b>COURSE TITLE</b>
WST 052	WASTEWATER TECHNOLOGY MATH

**Prerequisite:** MATH 942 or eligibility for MATH 952 as determined by SBVC assessment process.

**Catalog Description:** This vocational math course is recommended for students who are currently enrolled in water technology course(s). The course includes application of math to solve problems commonly encountered in water technology.

**Schedule Description:** This vocational math course is recommended for students who are currently enrolled in water technology course(s). The course includes application of math to solve problems commonly encountered in water technology.

**Rationale:** Departmental Advisory (MATH 942) changing to Prerequisite.

**Effective:** FA16

<b>COURSE ID</b>	<b>COURSE TITLE</b>
WST 053	WASTEWATER TECHNOLOGY MATH

**Prerequisite:** MATH 942 or eligibility for MATH 952 as determined by the SBVC assessment process.

Curriculum Meeting: 2-23-15, 3-9-15

Conjoint Meeting: 3-10-15

Board of Trustees Meeting: April 9, 2015

**Rationale:** The course needs to be updated to reflect the best accepted practices for process control and compliance with regulatory standards in the industry. Prerequisites updated to reflect knowledge and skills to obtain higher level certification in the industry.

**Effective:** FA16

COURSE ID	COURSE TITLE
WST 071	WATER TREATMENT I

**Prerequisite:** MATH 942 or eligibility for MATH 952 as determined by SBVC assessment process

**Departmental Advisories:** WST 052 and WST 061

**Catalog Description:** This introductory course is designed for students interested in the field of water treatment. It includes processes required to treat source water into potable water and includes the Expected Range of Knowledge (ERK) required to pass the California State Water Resource Control Board (SWRCB) water treatment examination at T1 level. Successful completion of this course fulfills the requirements for specialized training covering drinking water treatment required to apply for SRCB T2 examination.

**Schedule Description:** This introductory course includes processes required to treat source water into potable water. It prepares students for the California State Water Resource Control Board (SWRCB) T1 license exams. Successful completion of this course fulfills the training required to apply for SWRCB T2 examination.

**Rationale:** Periodic Review.

**Effective:** FA16

COURSE ID	COURSE TITLE
WST 072	WATER TREATMENT II

**Departmental Advisory:** CHEM 110

**Catalog Description:** This intermediate level course prepares students for apprenticeship or entry level position in the field of water treatment. The course covers the Expected Range of Knowledge (ERK) required to pass the California State Water Resources Board (SWRCB) treatment examination at T2 level. Successful completion of this course fulfills the specialized training, covering fundamentals of water supply principles, required to apply for the California Water Resources Control Board (SWRCB) T3 and D3 examination.

**Schedule Description:** This intermediate level course prepares students for apprenticeship or entry level position in the field of water treatment. It prepares students for California State Water Resources Board (SWRCB) T2 license exam. Successful completion of this course fulfills the training required to apply for SWRCB T3 and D3 examination.

**Rationale:** Periodic Review.

**Effective:** FA16

COURSE ID	COURSE TITLE
WST 081	WASTEWATER COLLECTION I

**Departmental Advisories:** MATH 942C or MATH 942 or eligibility for MATH 952 as determined by SBVC assessment process and WST 053.

**Rationale:** The course requires updating to reflect the best accepted practices for maintaining and operating wastewater collection systems.

**Effective:** FA16

COURSE ID	COURSE TITLE
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Curriculum Meeting: 2-23-15, 3-9-15

Conjoint Meeting: 3-10-15

Board of Trustees Meeting: April 9, 2015

WST 091	WASTEWATER TREATMENT I
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**Departmental Advisory:** WST 053

**Corequisite:** MATH 942C or eligibility for MATH 952 as determined by SBVC assessment process.

**Rationale:** The course requires updating to reflect the best accepted practices for wastewater treatment process control and compliance with regulatory standards.

**Effective:** FA16

COURSE ID	COURSE TITLE
WST 092	WASTEWATER TREATMENT II

**Departmental Advisory:** WST 053

**Rationale:** The course requires updating to reflect the best accepted practices for wastewater treatment process control and compliance with regulatory standards.

**Effective:** FA16

COURSE ID	COURSE TITLE
WST 093	WASTEWATER TREATMENT III

**Departmental Advisory:** WST 053

**Rationale:** The course requires updating to reflect the best accepted practices for wastewater treatment process control and compliance with regulatory standards.

**Effective:** FA16

<b>DELETE COURSE</b>
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WST 052A

WST 052B

WST 052C

**Rationale:** Courses are no longer offered.

**Effective:** FA16

<b>DISTRIBUTED EDUCATION</b>
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BIOL 270

GEOG 130

WST 071

WST 081

WST 091

WST 092

WST 093

**100% ONLINE**

**Rationale:** One of the planning themes of San Bernardino Valley College (SBVC) is access. For career technical courses, the issue of scheduling is crucial. Students working the night shift can only take class in the morning while those working traditional day schedules can only take evening classes. Given these variables and difficult schedules, students need the flexibility of time that an online class affords. An asynchronous online class allows students to study when their schedules allow and where they have the space and materials to do so effectively. The online delivery method of these courses supports the mission of SBVC by providing access to education to a diverse community of learners who find themselves in a community with complicated lives and difficult and demanding schedules and responsibilities.

Curriculum Meeting: 2-23-15, 3-9-15

Conjoint Meeting: 3-10-15

Board of Trustees Meeting: April 9, 2015

**MODIFY DEGREE****Water Technology A.S. Degree**

The Water Supply Technology Program is designed to serve students who are employed or interested in employment in water/wastewater occupations. The program provides technical classes in water distribution, water treatment, wastewater collection, and wastewater treatment. The courses prepare students to upgrade their skills and/or prepare them for licensing examinations and certifications from the California State Water Resource Control Board, the American Water Works Association, and the California Water Environment Association.

The certificate program is designed to prepare students for entry level jobs in water treatment, water distribution, and wastewater reclamation industries. The associate of science degree graduates often work in city, county, or state agencies in positions such as plant operator, engineering technician, surface water manager, environmental laboratory coordinator, and industrial pre-treatment coordinator.

To graduate with a specialization in Water Technology, students must complete the following required courses in addition to the general breadth requirements for Associate of Science degree (total = 60 units).

<b>Required Courses</b>		<b>Units</b>
CHEM101	Introductory Chemistry	4
	<b>or</b>	
CHEM110	Environmental and Consumer Chemistry	3

<b>18 units from the following Water Supply Technology courses</b>		<b>Units</b>
WST 031	Water Use Efficiency Practitioner I	3
WST 032	Water Use Efficiency Practitioner II	3
WST 045	Backflow Prevention Devices	3
WST 048	Cross-Connection Control	3
WST 061	Water Distribution I	3
WST 062	Water Distribution II	3
WST 063	Water Distribution III	3
WST 071	Water Treatment I	3
WST 072	Water Treatment II	3
WST 073	Water Treatment III	3
WST 074	Water/Wastewater Analysis	3
WST 081	Wastewater Collection I	3
WST 082	Wastewater Collection II	3
WST 091	Wastewater Treatment I	3
WST 092	Wastewater Treatment II	3
WST 093	Wastewater Treatment III	3

<b>Two courses from this list of RECOMMENDED courses:</b>		<b>Units</b>
CIT 101	Introduction to Computer Literacy	3
GIS 130	Introduction to Geographic Information Systems (GIS)	3

Curriculum Meeting: 2-23-15, 3-9-15

Conjoint Meeting: 3-10-15

Board of Trustees Meeting: April 9, 2015

WST 034	Introduction to Water Resource Management	3
WST 036	Water Utility Management	3

**Total Units:** **27 - 28**

**Rationale:** Content Review.

**Effective:** FA16

<b>MODIFY CERTIFICATE</b>
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**Water Supply Technology Certificate**

This certificate is designed to prepare students with the necessary knowledge and skills to obtain entry-level employment in the water supply technology field. [Note: the Water Supply Technology Certificate is not equivalent to the State License in Water Distribution, Water Treatment or Wastewater Treatment]. Work Experience course, WST 098, is highly recommended for students not currently employed in the field.

**REQUIRED COURSES:**

		<b>Units</b>
CHEM 101	Introductory Chemistry	4
	<b>or</b>	
CHEM 110	Environmental and Consumer Chemistry	3
CIT 031	Business English	3
	<b>or</b>	
ENGL 015	Preparation for College Writing	4
	<b>or</b>	
Eligibility for ENG 101 as determined by the SBVC assessment process		
WST 052	Water Technology Math	3
	<b>or</b>	
WST 053	Wastewater Technology Math	3
	<b>or</b>	
Eligibility for MATH 090 as determined by the SBVC assessment process		

**18 units from the following Water Supply Technology Courses:**

		<b>Units</b>
WST 031	Water Use Efficiency Practitioner I	3
WST 032	Water Use Efficiency Practitioner II	3
WST 045	Backflow Prevention Devices	3
WST 048	Cross-Connection Control	3
WST 061	Water Distribution I	3
WST 062	Water Distribution II	3
WST 063	Water Distribution III	3
WST 071	Water Treatment I	3
WST 072	Water Treatment II	3
WST 073	Water Treatment III	3
WST 074	Water/Wastewater Analysis	3
WST 081	Wastewater Collection I	3
WST 082	Wastewater Collection II	3
WST 091	Wastewater Treatment I	3

Curriculum Meeting: 2-23-15, 3-9-15

Conjoint Meeting: 3-10-15

Board of Trustees Meeting: April 9, 2015

WST 092	Wastewater Treatment II	3
WST 093	Wastewater Treatment III	3

**One course from this list of RECOMMENDED COURSES:**

CIT 101	Introduction to Computer Literacy	3
GIS 098	GIS Work Experience	1 - 4
WST 098	Water Supply Technology Work Experience	1 - 4

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**Total Units:** **22 - 33**

**Rationale:** Updated certificate to take into account reduction in course offerings.

**Effective:** FA16