San Bernardino Valley College

# Curriculum Committee Agenda

| Curriculum Committee Meeting Roll Call | | | | |
|---|---|---|---|---|
| Date: 4/21/2025 | Time: 2:00 p.m. to 4:00 p.m. | | Location: NH 215 | |
| Call to Order: | Adjournment: | | Quorum: 13 | |
| ☐ Anthony Ababat | ☐ Samuel Addington | ☐ John Banola | ☐ Elizabeth Banuelos | ☐ Thomas Berry (Faculty Chair) |
| ☐ Melita Caldwell-Betties | ☐ Mary Copeland | ☐ Todd Heibel | ☐ Leticia Hector (Chair) | ☐ Kristina Heilgeist* |
| ☐ Denise Knight | ☐ Keith Lee | ☐ Steven C. Lee | ☐ Jessy Lemieux | ☐ Breanna Lopez |
| ☐ Kevin Lyons | ☐ Micah Martin | ☐ David Martin | ☐ Jesus Navarro | ☐ Maria Notorangelo |
| ☐ Matthew Robles | ☐ Jamie (Herrera) Saylor | ☐ Rutina Taylor | ☐ Janice Wilkins | ☐ Vinnie Wu* |
| ☐ Kay Dee Yarbrough | ☐ Student Reps. (2) | | | |
| **Guests:** | | | | |
| | | | | |

*Co-chair - In the event of a tie vote, discussion will be re-opened, followed by a second vote. If the tie still persists, the Curriculum Chair shall cast the deciding vote.*

**non-voting members*

| Agenda Items | |
|---|---|
| **Approval of Minutes** | Approval of minutes for February 10, 2025, March 3, 2025, March 24, 2025, and April 7, 2025. |
| **VPI Report** | |
| **New Business** | A. Welcome<br>B. Informational Items<br>a. Transfer Degree updates for 2025-2026 to align with Cal-GETC and CCN.<br>b. Reviewing Upper Division Courses for Bachelor's Degrees Programs (See PDF resource: CCC Upper Division Information)<br>c. Administrative update COMMST 140<br>C. Action Items<br>a. Course & Program Approval Action Items<br>i. Course Approvals<br>ii. Program Approvals |
| **Announcements and Public Comments** | |

*The Curriculum Committee recommends that the pre-requisites and co-requisites approved be re-evaluated in the next 2-3 years by the appropriate departments/programs to ensure student success. Note: Committee members are voting on all Proposals, Requisites, Advisories, and Distance Education.*

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# Curriculum Committee Agenda

| Course Approval Action Items | | | | | |
|---|---|---|---|---|---|
| **Course ID:** | **Course Title:** | **Originator:** | **Proposal Type:** | **Notes/Comments:** | **Voting:** |
| **ESL 610** | Workforce Preparation for English Language Learners—Language and Customs of the American Workplace | Dirkson Lee | Modification | | |
| **ESL 611** | Workforce Preparation for English Language Learners - Applying for Employment | Dirkson Lee | Modification | | |
| **ESL 612** | Workforce Language Preparation for Entry Level Positions in the Food Service Industry | Dirkson Lee | Modification | | |
| **ESL 613** | Workforce Language Preparation for Entry Level Positions in the Retail Industry | Dirkson Lee | Modification | | |
| **FTVM 213** | Radio and Podcast Operations | Kevin Lyons | Review | | |
| **MUS 160X4** | Commercial Music Ensemble | Jessica Gordon | New | | |
| **NURS 140** | Vocational to Professional Nurse | Reshmi Kappittil | Modification | | |
| **NURS 150** | Foundations of Nursing | Reshmi Kappittil | Modification | | |
| **NURS 151** | Introduction to Medical Surgical Nursing | Reshmi Kappittil | Modification | | |
| **NURS 160** | Nursing Care of the Childbearing Family and Newborn | Reshmi Kappittil | Modification | | |
| **NURS 161** | Beginning Medical Surgical Nursing | Reshmi Kappittil | Modification | | |
| **NURS 250 -** | Nursing Care of Children and their Families | Reshmi Kappittil | Modification | | |
| **NURS 251 -** | Intermediate Medical Surgical Nursing | Reshmi Kappittil | Modification | | |
| **NURS 260** | Psychiatric-Mental Health Nursing | Reshmi Kappittil | Modification | | |

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| **NURS 261** | Complex Care and Leadership | Reshmi Kappittil | Modification | | |
| **STAT 300** | Applied Statistical Research and Analysis | Melita Caldwell-Betties | New | | |
| **WRM 301** | California Water History | Melita Caldwell-Betties | New | | |
| **WRM 302** | Introduction to Water Resource Management | Melita Caldwell-Betties | Modification | | |
| **WRM 305** | Written Communication and Critical Thinking for Advancing Leaders in the Water Industry | Melita Caldwell-Betties | New | | |
| **WRM 310** | Applied and Professional Ethics in the Water Sector | Melita Caldwell-Betties | New | | |
| **WRM 315** | Technology and Public Administration | Melita Caldwell-Betties | New | | |
| **WRM 320** | Strategic Planning in the Water Sector | Melita Caldwell-Betties | New | | |
| **WRM 325** | Water Resource Economics | Melita Caldwell-Betties | New | | |
| **WRM 330** | Water Law | Melita Caldwell-Betties | New | | |
| **WRM 335** | Tribal Water Rights | Melita Caldwell-Betties | New | | |
| **WRM 340** | International Environmental Policy | Melita Caldwell-Betties | New | | |
| **WRM 401** | Managing Public Organizations in the Water Sector | Melita Caldwell-Betties | New | | |
| **WRM 402** | Water Resource Management and the Public Policy Process | Melita Caldwell-Betties | New | | |
| **WRM 420** | Human Resources Administration in the Water Sector | Melita Caldwell-Betties | New | | |
| **WRM 430** | Water Sector Leadership and Diversity | Melita Caldwell-Betties | New | | |
| **WRM 440** | Collective Bargaining and Labor Relations | Melita Caldwell-Betties | New | | |

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| **WRM 460** | Capital Budgeting and Debt Management Systems | Melita Caldwell-Betties | New | | |
| **WRM 490** | GIS and Data Analysis in Water | Melita Caldwell-Betties | New | | |
| **WRM 495** | Research Methods in Water Resources Management | Melita Caldwell-Betties | New | | |
| **WRM 498** | Internship in Water Resource Management | Melita Caldwell-Betties | New | | |
| **WRM 499A** | Applied Research (Capstone) Project in Water Resource Management | Melita Caldwell-Betties | New | | |
| **WRM 499B** | Comprehensive Written Exam in Water Resource Management | Melita Caldwell-Betties | New | | |
| **WST 034** | Introduction to Water Resource Management | Melita Caldwell-Betties | Inactivation | | |
| | | | | | |

| Program Tech Review Items | | | | |
|---|---|---|---|---|
| **Program Title:** | **Originator:** | **Proposal Type:** | **Notes/Comments:** | **Voting:** |
| Artistic Glass Blowing Certificate of Achievement | Tim Colbert | New Certificate | ART | |
| Nursing A.S. Degree | Reshmi Kappittil | Modification | NURS | |
| | | | | |

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CALIFORNIA COMMUNITY COLLEGES BACHELOR'S DEGREE PROGRAMS

California Community Colleges

# What Makes an Upper Division Course Differ from a Lower Division Course?

Upper division courses are defined as requiring lower division knowledge and applying that knowledge as demonstrated measures of critical thinking through writing, oral communication, or computation. Upper division coursework may also encompass research elements, workforce training, apprenticeships, internships, required practicum, or capstone projects. Upper division courses typically will have one or more lower division or upper division prerequisites that have been established using content review of the entry skills necessary to be successful as outlined in the California Code of Regulations (CCR), title 5, section 55003.

California Community College Academic Senate Baccalaureate Handbook

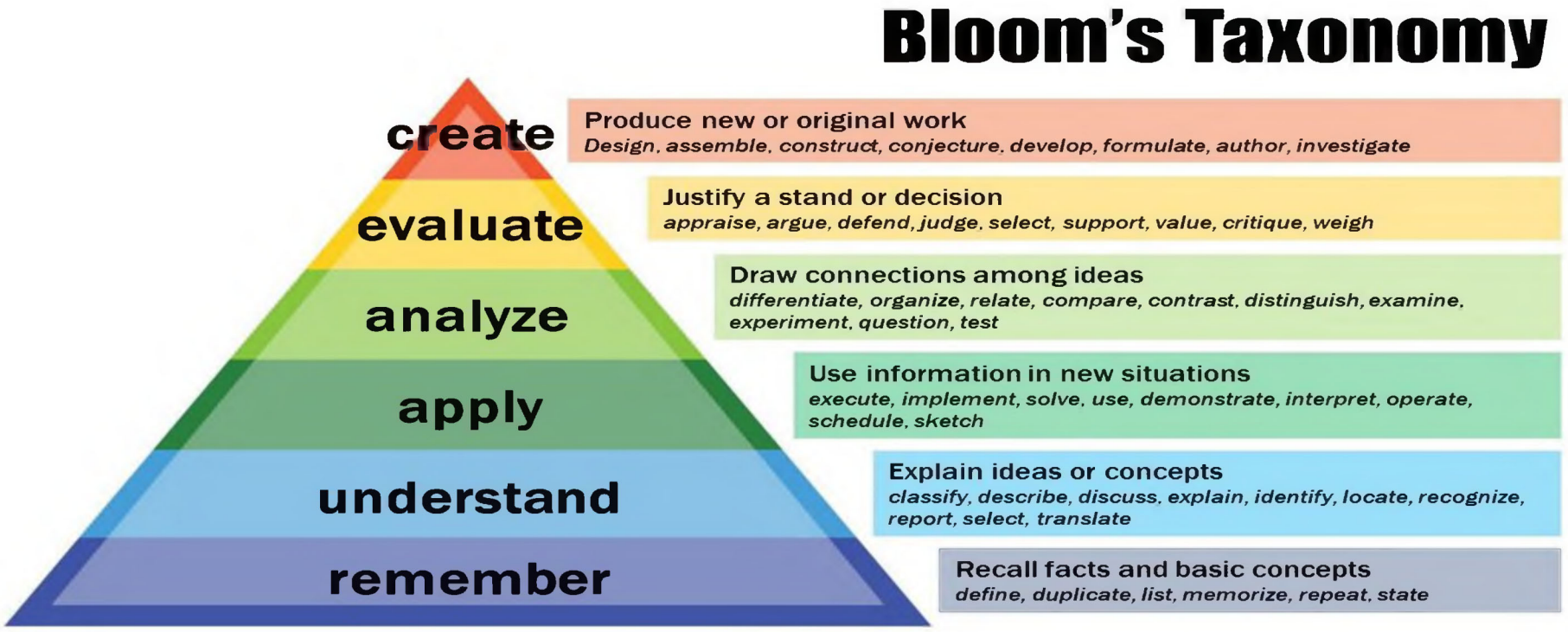
# Solano College adapted that definition of an Upper Division Course

Solano Community College defines upper division coursework as requiring lower division knowledge and applying that knowledge as demonstrated measures of critical thinking through writing, oral communication, or computation, and allow that upper division coursework may encompass research elements, workforce training, apprenticeships, internships, required practicum, or capstone projects.  - Solano College Academic Senate

# What makes an upper division course differ from a lower division course?

1. Depth/Focus: student outcomes include the development and understanding of the theories and methods of the discipline which may include the applications and limitations of those theories.
2. Specialization: student outcomes include specific intellectual and professional abilities to enable success or progress in a particular field or professional practice.
3. Refinement: student are able to build upon the “general education” background noted above the application of these skills in more discerning or challenging contexts.
4. Preparation: prerequisites may include more general courses, student class standing, GPA requirements, or admission to a pre-professional program.
5. Capstone Courses/Projects: though not necessarily specialized or focused on in-depth study of one discipline, student outcomes may have an integrative function wherein students integrate knowledge from earlier studies.

# Bloom's Taxonomy



# Student Learning Outcomes Require the Application of Higher Levels of Bloom's Taxonomy

## ower Division Prerequisite Course SLO

1. Describe an overview of the process in the production pipeline for manufacturing a protein pharmaceutical.
2. Outline the business life cycle of a biotechnology company.
3. Outline the structure of the Food and Drug Administration and describe how they assure the safety, efficacy, identity, purity, and potency of a drug or biologic through the enforcement of current Good Manufacturing Practices.

## Upper Division Course SLO

1. As the result of this course students will develop the ability to utilize a Quality by Design (QbD) approach to develop a regulatory strategy for a protein pharmaceutical. In this approach students will identify the critical quality attributes (CQAs) of the product, the relationship between the product and the process used to produce it, the quality considerations of the raw materials, and knowledge of the product's clinical properties to design a strategy. Students will identify how a company's different teams - research and development, manufacturing, quality control, and regulatory affairs – team to produce a regulation system. (Bloom's Taxonomy: Create) (Webb's Depth of Knowledge: Extended Thinking)

# Student Learning Outcomes Require the Application of Higher Levels of Bloom's Taxonomy

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Upper Division Course SLO

2. As the result of this course students will develop the ability to read and critically analyze primary documents from the International Council for Harmonisation (e. g. ICH 7, ICH 8, ICH 9, and ICH 10) and evaluate how the basic science that governs the manufacturing of protein pharmaceuticals led to the design of these regulations.

(Bloom's Taxonomy: Analyze)

(Webb's Depth of Knowledge: Extended Thinking)

| Biomanufacturing Upper | |
|---|---|
| **Biomanufacturing Process Sciences (Lecture/Lab) BIOT 401 (5 Units)**<br>• Physical and chemical principles of biochemical engineering that enable large cell culture<br>• Thermodynamics and the properties of fluids; mass and heat transfer, fluid flow, and the energy relationships in fluid systems<br>• Biomanufacturing technologies enabling large scale upstream and downstream processes | **Supply Chain and Enterprise Resource Planning (Lecture) BIOT 406 (3 Units)**<br>• Manage flow of materials in a supply chain<br>• Understand the design, planning and execution of raw material procurement and use<br>• Eligibility for certification test |
| **Design of Experiments for Biomanufacturing (Lecture/Lab) BIOT 402 (4 Units)**<br>• Established methods to systematically vary process parameters to improve and optimize a biomanufacturing process | **Advanced Topics in Quality Assurance and Regulatory Affairs (Lecture) BIOT 407 (4 Units)**<br>• Study of the harmonized quality system approaches of ICH Q8, 9, 10, and 11, including quality risk management, qualification, and validation |
| **Design of Biomanufacturing Facilities, Critical Utilities, Processes, and Equipment (Lecture) BIOT 403 (4 Units)**<br>• An examination of how the robust design of all aspects of a biomanufacturing facility minimizes errors<br>• The role of Quality by Design (ICH Q8) in facilty design<br>• Processes and equipment in biological production, recovery, and purification.<br>• Aseptic process design.<br>• Clean utility and support systems | **Six Sigma and Lean Manufacturing (Lecture/Discussion) BIOT 408 (4 Units)**<br>• Study of key six sigma concepts and tools; the DMAIC phases: design, measure, analyze, improve, and control<br>• Use and implementation of lean tools to reduce waste<br>• Completion of this course prepares students to earn a certification in six sigma. |
| **Bioprocess Monitoring and Control (Lecture/Lab) BIOT 404 (5 Units)**<br>• The measurement, monitoring, modeling, and control of biomanufacturing processes. | **Methods in Quality Improvements, Investigations, and Audits (Lecture) BIOT 409 (4 Units)**<br>1. The study of continuous quality improvement techniques, including investigational methods into process deviations |
| **Emerging Biomanufacturing Technologies (Seminar) BIOT 405 (3 Units)**<br>* An examination of new technologies in biological production and purification operations. | **Emerging Trends in Biomanufacturing Quality (Seminar) BIOT 410 (3 Units)**<br>• An examination of new regulatory requirements and changes to current practices in biomanufacturing quality |