Proposing New CSU Degree Programs
Bachelor’s and Master’s Levels

Offered through Self-Support and State-Support Modes

This document presents the format, criteria, and submission procedures for CSU bachelor’s and master’s degree program proposals. Please see the Academic Program Planning website for doctoral degree proposal formats. (http://www.calstate.edu/APP/)

Templates for Doctoral Proposals

- CSU Ed.D. Programs
- UC CSU Joint Doctoral Programs
- Joint Doctorates with Independent Institutions

Criteria

Proposals are subjected to system-level internal and external evaluation, through which reviewers seek evidence indicating that current campus budgetary support levels provide sufficient resources to establish and maintain the program. Review criteria include: curriculum, financial support, number and qualifications of faculty, physical facilities, library holdings, responsiveness to societal need and regional and workforce needs, academic assessment plans, and compliance with all applicable CSU policies, state laws, and accreditation standards.

Procedures

Before a proposal is submitted to the Chancellor’s Office, the campus adds the projected degree program to the campus academic plan. Subsequent to the CSU Board of Trustees approval of the projection, a detailed, campus-approved program implementation proposal is submitted to Chancellor’s Office for review and approval. Proposals are to be submitted in the academic year preceding projected implementation. Only programs whose implementation proposals have been approved by the CSU Chancellor may enroll students. Campus Academic Plans appear in the Educational Policy Committee Agenda Item of the annual March meeting of the Board of Trustees.

Submission

1. The degree program proposal should follow the format and include information requested in this template. If the proposed program is subject to WASC Substantive Change, the Chancellor’s Office will accept the WASC Substantive Change Proposal format in place of the CSU format. If campuses choose to submit the WASC Substantive Change Proposal, they will also be required to submit a program assessment plan using the format found in the CSU program proposal template. For undergraduate degrees, the total number of units required for graduation must still be made explicit.
2. Submit **ONE** hard copy of the campus-approved degree implementation proposal, including documentation of campus approval, to:

   Academic Programs and Faculty Development  
   CSU Office of the Chancellor  
   401 Golden Shore  
   Long Beach, California 90802-4210

3. Submit **ONE** electronic copy to [APP@calstate.edu](mailto:APP@calstate.edu). A Word version is preferred.

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CSU DEGREE PROPOSAL  
Faculty Check List

Please confirm (√) that the following are included in the degree proposal:

_____ Board of Trustees Academic Master Plan approval date.

_____ Copies of any contracts or agreements made between parties with an interest in operating the proposed program. Other entities may include academic departments, academic institutions, foundations, vendors or similar. Please include a copy of the agreement and an e-mail or other evidence that the campus attorney has approved the agreement.

_____ The total number of units required for graduation is specified (not just the total for the major):

   ___ a proposed bachelor’s program requires no fewer than 120 semester units
   ___ any proposed bachelor’s degree program with requirements exceeding 120 units must request an exception to the 120 semester unit limit policy
   ___ all units required for degree completion must be included in the total units required for the degree. Any proficiencies required to graduate that are beyond what is included in university criteria admission criteria must be assigned unit values and included in the total unit count.

_____ Please specify the total number of prerequisite units required for the major.  
Note: The prerequisites must be included in the total program unit count.

List all courses and unit counts that are prerequisite to the major:

_________________________________________________________________
_________________________________________________________________

_____ Title 5 minimum requirements for bachelor’s degree have been met, including:

   ___ minimum number of units in major (BA 24 semester units), (BS 36 semester units)
minimum number of units in upper-division (BA 12 semester units), (BS 18 semester units)

Title 5 requirements for proposed master’s degree have been met, including:

minimum of 30 semester units of approved graduate work are required
no more than 50% of required units are organized primarily for undergraduate students
maximum of 6 semester units are allowed for thesis or project
Title 5 requirements for master’s degree culminating experience are clearly explained.
for graduate programs, at least five-full time faculty with terminal degrees in appropriate disciplines are on staff.

For self-support programs:
(in conformance with EO 1099 and EO 1102)

specification of how all required EO 1099 self-support criteria are met
the proposed program does not replace existing state-support courses or programs
academic standards associated with all aspects of such offerings are identical to those of comparable state-supported CSU instructional programs
explanation of why state funds are either inappropriate or unavailable
a cost-recovery program budget is included*
student per-unit cost is specified
total cost for students to complete the program is specified

* Basic Cost Recovery Budget Elements (Three to five year budget projection)

Student per-unit cost
Number of units producing revenue each academic year
Total cost a student will pay to complete the program

Revenue - (yearly projection over three years for a two-year program; five years for a four-year program)
Student fees
Include projected attrition numbers each year
Any additional revenue sources (e.g., grants)

Direct Expenses
Instructional costs – faculty salaries and benefits
Operational costs – (e.g., facility rental)
Extended Education costs – staff, recruitment, marketing, etc.
Technology development and ongoing support (online programs)

Indirect Expenses
Campus partners
Campus reimbursement general fund
Extended Education overhead
Chancellor’s Office overhead

*Additional line items maybe added based on program characteristics and needs.
Please Note:

- Campuses may mention proposed degree programs in recruitment material if it is specified that enrollment in the proposed program is contingent on final program authorization from the CSU Chancellor’s Office.

- Approved degree programs will be subject to campus program review within five years after implementation. Program review should follow system and Board of Trustee guidelines (including engaging outside evaluators) and should not rely solely on accreditation review.

- Please refer to the document “Tips for Completing a Successful Program Proposal” (which follows this document) before completing the Program Proposal Template.

1. Program Type (Please specify any from the list below that apply—delete the others)
   a. State-Support
   b. Self-Support
   c. Delivery Type: Fully face to face, fully online, or hybrid program
   d. Fast Track (bachelor’s or master’s only; not already on campus academic plan)
   e. Pilot (bachelor’s or master’s only; not already on campus academic plan; please use pilot proposal template)
   f. Pilot Conversion (please use pilot conversion template)
   g. New Program
   h. Proposal Revision (updating a previously reviewed proposal)

2. Program Identification
   a. Campus

   b. Full and exact degree designation and title (e.g. Master of Science in Genetic Counseling, Bachelor of Arts with a Major in History).

   c. Date the Board of Trustees approved adding this program projection to the campus Academic Master Plan.
d. Term and academic year of intended implementation (e.g., fall 2018).

e. Total number of units required for graduation. This will include all requirements (and campus-specific graduation requirements), not just major requirements.

f. Name of the department(s), division, or other unit of the campus that would offer the proposed degree major program. Please identify the unit that will have primary responsibility.

g. Name, title, and rank of the individual(s) primarily responsible for drafting the proposed degree major program.

h. Statement from the appropriate campus administrative authority that the addition of this program supports the campus mission and will not impede the successful operation and growth of existing academic programs.

i. Any other campus approval documents that may apply (e.g. curriculum committee approvals).

j. Please specify whether this proposed program is subject to WASC Substantive Change review. The campus may submit a copy of the WASC Sub-Change proposal in lieu of this CSU proposal format. If campuses choose to submit the WASC Substantive Change Proposal, they will also be required to submit a program assessment plan using the format found in the CSU program proposal template.

k. Optional: Proposed Classification of Instructional Programs and CSU Degree Program Code

Campuses are invited to suggest one CSU degree program code and one corresponding CIP code. If an appropriate CSU code does not appear on the system-wide list at: http://www.calstate.edu/app/resources.shtml, you can search CIP 2010 at http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55 to identify the code that best matches the proposed degree program. The Classification of Instructional Programs (CIP) is a National Center for Education Statistics (NCES) publication that provides a numerical classification and standard terminology for secondary and postsecondary instructional programs. The CSU degree program code (based on old HEGIS codes) and CIP code will be assigned when the program is approved by the Chancellor.

3. Program Overview and Rationale
a. Provide a brief descriptive overview of the program citing its 1) purpose and strengths, 2) fit with the institutional mission or institutional learning outcomes, and 3) the compelling reasons for offering the program at this time.

b. Provide the proposed catalog description. The description should include:

1. a narrative description of the program

2. admission requirements

3. a list of all required courses for graduation including electives, specifying course catalog numbers, course titles, prerequisites or co-requisites (ensuring there are no “hidden prerequisites” that would drive the total units required to graduate beyond the total reported in 2e above), course unit requirements, and any units associated with demonstration of proficiency beyond what is included in university admission criteria.

4. total units required to complete the degree, and if a master’s degree

5. catalog copy describing the culminating experience requirement(s)

4. Curriculum – (These requirements conform to the revised 2013 WASC Handbook of Accreditation)

a. These program proposal elements are required:

- Institutional learning outcomes (ILOs)
- Program learning outcomes (PLOs)
- Student learning outcomes (SLOs)

Describe outcomes for the 1) institution, 2) program, and for 3) student learning. Institutional learning outcomes (ILOs) typically highlight the general knowledge, skills, and dispositions all students are expected to have upon graduating from an institution of higher learning. Program learning outcomes (PLOs) highlight the knowledge, skills, and dispositions students are expected to know as graduates from a specific program. PLOs are more narrowly focused than ILOs. Student learning outcomes (SLOs) clearly convey the specific and measurable knowledge, skills, and/or behaviors expected and guide the type of assessments to be used to determine if the desired level of learning has been achieved.

(WASC 2013 CFR: 1.1, 1.2, 2.3)

b. These program proposal elements are required:

- Comprehensive assessment plan addressing all assessment elements
Matrix showing where student learning outcomes are introduced (I), developed (D), and mastered (M)

Key to program planning is creating a comprehensive assessment plan addressing multiple elements, including a strategy and tool to assess each student learning outcome. SLOs operationalize the PLOs and serve as the basis for assessing student learning in the major. Constructing an assessment matrix, showing the relationship between all assessment elements, is an efficient and clear method of displaying all assessment plan components.

Creating a curriculum map matrix, identifying the student learning outcomes, the courses where they are found, and where content is “introduced,” “developed,” and “mastered” insures that all student learning outcomes are directly related to overall program goals and represented across the curriculum at the appropriate times. Assessment of outcomes is expected to be carried out systematically according to an established schedule, generally every five years.

c. Indicate total number of units required for graduation.

d. Include a justification for any baccalaureate program that requires more than 120-semester units or 180-quarter units. Programs proposed at more than 120 semester units will have to provide either a Title 5 justification for the higher units or a campus-approved request for an exception to the Title 5 unit limit for this kind of baccalaureate program.

e. If any formal options, concentrations, or special emphases are planned under the proposed major, identify and list the required courses. Optional: You may propose a CSU degree program code and CIP code for each concentration that you would like to report separately from the major program.

f. List any new courses that are: (1) needed to initiate the program or (2) needed during the first two years after implementation. Include proposed catalog descriptions for new courses. For graduate program proposals, identify whether each new course would be at the graduate- or undergraduate-level.

g. Attach a proposed course-offering plan for the first three years of program implementation, indicating likely faculty teaching assignments.

(WASC 2013 CFR: 2.2b)

h. For master’s degree proposals, include evidence that program requirements conform to the minimum requirements for the culminating experience, as specified in Section 40510 of Title 5 of the California Code of Regulations.
i. For graduate degree proposals, cite the corresponding bachelor’s program and specify whether it is (a) subject to accreditation and (b) currently accredited.

(WASC 2013 CFR: 2.2b)

j. For graduate degree programs, specify admission criteria, including any prerequisite coursework.

(WASC 2013 CFR: 2.2b)

k. For graduate degree programs, specify criteria for student continuation in the program.

l. For undergraduate programs, specify planned provisions for articulation of the proposed major with community college programs.

m. Provide an advising “roadmap” developed for the major.

n. Describe how accreditation requirements will be met, if applicable, and anticipated date of accreditation request (including the WASC Substantive Change process).

(WASC 2013 CFR: 1.8)

**Accreditation Note:**

*Master’s degree program proposals*
If subject to accreditation, establishment of a master’s degree program should be preceded by national professional accreditation of the corresponding bachelor’s degree major program.

*Fast-track proposals*
Fast-track proposals cannot be subject to specialized accreditation by an agency that is a member of the Association of Specialized and Professional Accreditors unless the proposed program is already offered as an authorized option or concentration that is accredited by an appropriate specialized accrediting agency.

5. **Societal and Public Need for the Proposed Degree Major Program**

a. List other California State University campuses currently offering or projecting the proposed degree major program; list neighboring institutions, public and private, currently offering the proposed degree major program.

b. Describe differences between the proposed program and programs listed in Section 5a above.
c. List other curricula currently offered by the campus that are closely related to the proposed program.

d. Describe community participation, if any, in the planning process. This may include prospective employers of graduates.

e. Provide applicable workforce demand projections and other relevant data.

**Note: Data Sources for Demonstrating Evidence of Need**

APP Resources Web [http://www.calstate.edu/app/resources.shtm](http://www.calstate.edu/app/resources.shtm)

US Department of Labor, Bureau of Labor Statistics

California Labor Market Information

6. **Student Demand**

a. Provide compelling evidence of student interest in enrolling in the proposed program. Types of evidence vary and may include (for example), national, statewide, and professional employment forecasts and surveys; petitions; lists of related associate degree programs at feeder community colleges; reports from community college transfer centers; and enrollments from feeder baccalaureate programs.

b. Identify how issues of diversity and access to the university were considered when planning this program. Describe what steps the program will take to insure ALL prospective candidates have equitable access to the program. This description may include recruitment strategies and any other techniques to insure a diverse and qualified candidate pool.

c. For master’s degree proposals, cite the number of declared undergraduate majors and the degree production over the preceding three years for the corresponding baccalaureate program, if there is one.

d. Describe professional uses of the proposed degree program.

e. Specify the expected number of majors in the initial year, and three years and five years thereafter. Specify the expected number of graduates in the initial year, and three years and five years thereafter.

7. **Existing Support Resources for the Proposed Degree Major Program**

**Note:** Sections 7 and 8 should be prepared in consultation with the campus administrators responsible for faculty staffing and instructional facilities allocation and planning. A statement from the responsible administrator(s) should be attached to the proposal assuring that such consultation has taken place.
a. List faculty who would teach in the program, indicating rank, appointment status, highest degree earned, date and field of highest degree, professional experience, and affiliations with other campus programs. Note: For all proposed graduate degree programs, there must be a minimum of five full-time faculty members with the appropriate terminal degree. (Coded Memo EP&R 85-20)

b. Describe facilities that would be used in support of the proposed program.

c. Provide evidence that the institution provides adequate access to both electronic and physical library and learning resources.

d. Describe available academic technology, equipment, and other specialized materials.

8. Additional Support Resources Required

Note: If additional support resources will be needed to implement and maintain the program, a statement by the responsible administrator(s) should be attached to the proposal assuring that such resources will be provided.

a. Describe additional faculty or staff support positions needed to implement the proposed program.

b. Describe the amount of additional lecture and/or laboratory space required to initiate and to sustain the program over the next five years. Indicate any additional special facilities that will be required. If the space is under construction, what is the projected occupancy date? If the space is planned, indicate campus-wide priority of the facility, capital outlay program priority, and projected date of occupancy. Major capital outlay construction projects are those projects whose total cost is $610,000 or more (as adjusted pursuant to Cal. Pub. Cont. Code §§ 10705(a); 10105 and 10108).

c. Include a report written in consultation with the campus librarian which indicates any necessary library resources not available through the CSU library system. Indicate the commitment of the campus to purchase these additional resources.

d. Indicate additional academic technology, equipment, or specialized materials that will be (1) needed to implement the program, and (2) needed during the first two years after initiation. Indicate the source of funds and priority to secure these resource needs.

9. Self-Support Programs
a. Confirm that the proposed program will not be offered at places or times likely to supplant or limit existing state-support programs.

b. Explain how state-support funding is either unavailable or inappropriate.

c. Explain how at least one of the following additional criteria shall be met:
   i. The courses or program are primarily designed for career enrichment or retraining;
   ii. The location of the courses or program is significantly removed from permanent, state-supported campus facilities;
   iii. The course or program is offered through a distinct technology, such as online delivery;
   iv. For new programs, the client group for the course or program receives educational or other services at a cost beyond what could be reasonably provided within CSU Operating Funds;
   v. For existing programs, there has been a cessation of non-state funding that previously provided for educational or other services costing beyond what could be reasonably provided within CSU Operating Funds.

d. For self-support programs, please provide information on the per-unit cost to students and the total cost to complete the program (in addition to the required cost recovery budget elements listed in the CSU degree proposal faculty check list found earlier in this document and listed below):

   * Basic Cost Recovery Budget Elements
   (Three to five year budget projection)

   Student per-unit cost
   Number of units producing revenue each academic year
   Total cost a student will pay to complete the program

   Revenue - (yearly projection over three years for a two-year program; five years for a four-year program)
      Student fees
      Include projected attrition numbers each year
      Any additional revenue sources (e.g., grants)

   Direct Expenses
      Instructional costs – faculty salaries and benefits
      Operational costs – (e.g., facility rental)
      Extended Education costs – staff, recruitment, marketing, etc.
      Technology development and ongoing support (online programs)

   Indirect Expenses
      Campus partners
Campus reimbursement general fund  
Extended Education overhead  
Chancellor’s Office overhead

*Additional line items may be added based on program characteristics and needs.

Submit completed proposal packages to:
APP@calstate.edu

Academic Programs and Faculty Development  
CSU Office of the Chancellor  
401 Golden Shore  
Long Beach, CA 90802-4210

Contact Us
Dr. Christine Mallon  
Assistant Vice Chancellor  
Academic Programs and Faculty Development  
Phone (562) 951-4672  
cmallon@calstate.edu

Academic Programs and Faculty Development is on the Web  
http://www.calstate.edu/APP/

Contact Extended Education
Dr. Sheila Thomas, Assistant Vice Chancellor and Dean, Extended Education  
Phone (562) 951-4795  
sthomas@calstate.edu
These “Tips” are designed to assist campuses as they prepare proposals for both internal campus and Chancellor’s Office review and approval. They are meant to clarify areas from the CSU Degree Program Proposal Template that may need additional explanation. Following these guidelines will increase the likelihood of receiving a positive outcome is greatly enhanced.

The “Tips” below address items 2 through 9 in the Proposal Template, as these areas generally require more detailed and/or more complex responses. All “Tips” are italicized and directly relate to the prompt indicated. Please note that some prompts in the template do not have “Tips” because the prompt itself is self-explanatory. However, if additional clarification is needed to complete any of the sections, please do not hesitate to contact the office of Academic Programs and Faculty Development at the Chancellor’s Office for assistance.

2. Program Identification
   
k. Optional: Proposed Classification of Instructional Programs and CSU Degree Program Code

When developing the curriculum for a new program, curricular content guidance is provided from the Classification of Instructional Programs (CIP) code. CIP codes are part of the Integrated Postsecondary Education Data System (IPEDS), run by the National Center for Education Statistics. Because CSU campus programs report to the CSU Chancellor’s Office and nationally to IPEDS, accurate reporting of degree program data relies on consistent use of codes that reflect the curricula defined by IPEDS. It is important to insure that program curriculum reflects the basic programmatic content as described in the CIP code definition.

3. Program Overview and Rationale
   
a. Provide a brief descriptive overview of the program citing its purpose and strengths, fit with the institutional mission or institutional learning outcomes, and the compelling reasons for offering the program at this time.

The first sentence should describe the program’s purpose clearly and succinctly. For example, starting out saying “This program is designed to . . .” or “The purpose of the program is to . . .” will help to define and describe the program’s content knowledge. What compelling or unique features does this program have that will draw candidates to apply and ultimately enroll?
Overall, what knowledge, skills, and dispositions will graduates possess when they graduate from the program?

The overview also requires a statement of how the program fits with the institutional mission or institutional learning outcomes. Simply stating “This programs fits with the institutional mission” is not sufficient. Instead, state the actual mission statement or expected outcomes of the institution and describe in several sentences how the program fits, complements, augments, or extends the mission. Then, provide a justification for offering the program. The justification is critical as it forms the basis of the argument for requesting approval to offer the proposed program.

b. Provide the proposed catalog description. The description should include:

1. a narrative description of the program

2. admission requirements

3. a list of all required courses for graduation including electives, specifying course catalog numbers, course titles, prerequisites or co-requisites (ensuring there are no “hidden prerequisites” that would drive the total units required to graduate beyond the total reported in 2e above), course unit requirements, and if applicable, any allowable units associated with demonstration of proficiency.

4. total units required to complete the degree, and if a master’s degree,

5. catalog copy describing the culminating experience requirement(s)

In separate sections provide the proposed catalog description (the copy prospective candidates will view). The catalog copy should include 1) a description of the program, 2) admission requirements – avoiding vague language and requirements with multiple interpretations, and 3) a list of all required courses indicating which courses are electives and or prerequisites. In the course list, include the catalog number, course title, and number of units required for the course, 4) the total number of units to complete the degree keeping in mind the 120 maximum policy for most bachelor’s degrees and the minimum of 30 units for master’s degrees. For master’s degrees, describe the type of culminating experience required. Title 5 allows three choices – thesis, project, or comprehensive examination.

A note about admission requirements: Criteria must be clear, succinct, and stated using unambiguous terms. For example, rather than saying “satisfactory completion,” indicate the criteria that define satisfactory completion such as “with a 2.5 GPA.”
Please use any catalog copy format required by your own university. The key is to make sure all required information is included.

4. Curriculum

a. These program proposal elements are required:

- Institutional learning outcomes (ILOs)
- Program learning outcomes (PLOs)
- Student learning outcomes (SLOs)

Describe outcomes for the 1) institution, 2) program, and for 3) student learning. Institutional learning outcomes (ILOs) typically highlight the general knowledge, skills, and dispositions all students are expected to have upon graduating from an institution of higher learning. Program learning outcomes (PLOs) highlight the specific discipline’s knowledge, skills, and dispositions students are expected to know as program graduates. Student learning outcomes (SLOs) clearly convey the specific and measurable behaviors students will demonstrate in order to achieve the program’s outcomes. They will also determine the type of assessments to be used to assess if the desired level of learning has been achieved.

(WASC 2013 CFR: 1.1, 1.2, 2.3)

Institutional learning outcomes (ILOs)

Overall, ILOs are the collective expression of the learning environment the university offers to any enrolled student. It is beneficial to examine ILOs at the beginning of the program development process to make sure program and student learning outcomes will be progressively more narrow extensions of the university outcomes.

Examples of institutional learning outcomes (ILOs):

Graduates of XXX University will:

- think critically and creatively and apply analytical and quantitative reasoning to address complex challenges and everyday problems;

- communicate ideas, perspectives, and values clearly and persuasively while listening openly to others;

- apply knowledge of diversity and multicultural competencies to promote equity and social justice in our communities;

- work collaboratively and respectfully as members and leaders of diverse teams and communities;
• act responsibly and sustainably at local, national, and global levels;

• demonstrate expertise and integration of ideas, methods, theory and practice in a specialized discipline of study.

**Program learning outcomes (PLOs)**

PLOs reflect the core themes and discipline content areas of the major and should be natural outgrowths of the university ILOs. Program outcomes are best written with a strong focus on describing the characteristics of an ideal program graduate within the specific discipline. Five or six program outcomes tend to be both adequate and manageable.

**Examples of program learning outcomes (PLOs):**

**Biological Science** program graduates will:

• apply a rich body of relevant biological sciences knowledge and information to solve complex scientific problems and challenges

• integrate the scientific method in field, lab, or research settings through critical analysis, problem solving, and collaborative communication techniques

• advocate for biological sciences equity and social justice in diverse and multicultural local, national and global contexts

**Student learning outcomes (SLOs)**

Student learning outcomes clearly state the specific and measurable behaviors students will display to verify learning has occurred. Key characteristics of student learning outcomes include 1) clarity, 2) specificity, (this means they are worded with active verbs stating observable behaviors) and, 3) measurability. Every student learning outcome should be directly aligned with and related to one or more program learning outcomes. SLOs should be limited in number (eight or less) to maintain manageability. An SLO (or a combination of two SLOs) can be assessed with only one assignment and in only one course.

**Constructing Student Learning Outcomes (SLOs):** Bloom’s Taxonomy of Educational Objectives is an extremely useful tool for creating meaningful student learning outcomes. Effective programs utilize all six levels of the taxonomy with the majority of cognitive outcomes focused on levels 4, 5, and 6 for both undergraduate and graduate program. For graduate programs, it is especially important to have a higher concentration of
outcomes constructed at the top three levels.

<table>
<thead>
<tr>
<th>Bloom's Taxonomy Levels (lowest to highest levels of learning)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge: To know and remember</td>
</tr>
<tr>
<td>2. Comprehension: To understand, interpret, and compare</td>
</tr>
<tr>
<td>3. Application: To apply knowledge</td>
</tr>
<tr>
<td>4. Analysis: To identify parts and relationships</td>
</tr>
<tr>
<td>5. Synthesis: To create something new from parts</td>
</tr>
<tr>
<td>6. Evaluation: To judge and assess quality</td>
</tr>
</tbody>
</table>

Examples of Student Learning Outcomes (SLOs):

**Physical and Biological Sciences:**
- Using at least three large sets of scientific data related to specific areas of scientific interest (e.g., cell, behavioral, molecular biology, genetics, etc.), students will analyze and synthesize the data to solve a scientific problem.
- Students will design and conduct a scientific experiment using all steps in the scientific method and report the findings.
- Students will analyze and evaluate multiple perspectives and interpretations associated with various biological science theories and defend or refute their merits.

**Languages and Literature:**
- Using critical terms and appropriate methodology, students will complete a literary analysis following the conventions of standard written English.
- French students will make an oral presentation with suitable accuracy in pronunciation, vocabulary, and language fluency.
- French students will accurately read and translate multiple French text passages.

**Mathematics:**
- Students will apply algorithmic techniques to solve problems and obtain valid solutions.
- Students will evaluate and judge the reasonableness of obtained solutions and defend their position.

**Humanities and Fine Arts:**
- Using various industry standard protocols, students will analyze and critique works of art and visual objects and render their conclusions.
- Students will identify musical elements, take them down at dictation, and perform them by sight.
• Students will communicate both orally and verbally about music of all genres and styles in a clear and articulate manner.

**Social Sciences:**
• Students will test hypotheses and draw correct inferences using both quantitative and qualitative analysis.
• Students will evaluate theory and critique research within the discipline and defend their positions.

**Business**
• Students will work in groups and display professional business standards dispositions as part of an effective team.
• Students will recognize and accurately diagnose accounting problems.

(Sample student learning outcomes are adapted and augmented from the Stanford University assessment support website and Fresno City College Student Learning Outcome Handbook)


The table below provides some examples of verbs to consider when constructing student learning outcomes at each level of Bloom’s Taxonomy.

| Sample action verbs at each level of Bloom’s Taxonomy to assist in creating observable and assessable program Student Learning Outcomes |
|---|---|
| **Knowledge** | define, describe, identify, outline, select |
| **Comprehension** | classify, discuss, distinguish, estimate, infer, summarize |
| **Application** | apply, compute, illustrate, interpret, prepare, solve, write |
| **Analysis** | analyze, compare, contrast, criticize, differentiate, model |
| **Synthesis** | categorize, construct, design, generalize, reconstruct, synthesize |
| **Evaluation** | appraise, argue, defend, evaluate, judge, justify, interpret, support |

The verbs listed above represent just a fraction of those contained at each level.

**Additional suggested resources:**


Online resources for constructing course or program level learning outcomes:

WASC 2013 definition of “outcome”:

A concise statement of what the student should know or be able to do. Well-articulated learning outcomes describe how a student can demonstrate the desired outcome; verbs such as “understand” or “appreciate” are avoided in favor of observable actions, e.g., “identify,” “analyze.” Learning outcomes can be formulated for different levels of aggregation and analysis. Student learning outcomes are commonly abbreviated as SLOs, course learning outcomes as CLOs, program learning outcomes as PLOs, and institution-level outcomes as ILOs. Other outcomes may address access, retention and graduation, and other indicators aligned with institutional mission and goals (WASC, 2013, Handbook of Accreditation, p. 51).

Connecting the outcomes:

**Sample outcomes for a Bachelor of Science degree in Biological Science**

<table>
<thead>
<tr>
<th>ILO – Institutional Learning Outcome</th>
<th>PLO – Program Learning Outcome</th>
<th>SLO – Student Learning Outcome</th>
<th>Where is the SLO assessed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduates will think critically and creatively and apply analytical and quantitative reasoning to complex problems.</td>
<td>Graduates will solve complex biological science problems.</td>
<td>Using biological science data sets, students will analyze and synthesize the data to solve a scientific problem in their interest area.</td>
<td>BIOL 101: Keys to General Biology and Biodiversity.</td>
</tr>
</tbody>
</table>

Note: Not all courses in the major will be designated as an SLO assessment course.

The ILO is quite global. The PLO funnels the learning down to the specific discipline. The SLO outcome data will verify if the PLO and the ILO have been achieved. Note the
connectivity (highlighted in yellow) between the ILO, PLO and SLO above. The relationship between the outcomes is significant as it demonstrates coherence between outcome levels.

b. These program proposal elements are required:

- Comprehensive program assessment plan addressing all assessment elements

- Curriculum map matrix indicating where student learning outcomes are introduced (I), developed (D), and mastered (M)

**The Comprehensive Assessment Plan**

The comprehensive assessment plan displays all elements of the assessment cycle. Assessment elements are coordinated to match many accreditation agency assessment requirements, e.g., WSCUC, ABET, NASM and many others. Please see Appendix A for an example.

The comprehensive assessment plan should identify:

a. Institutional learning outcomes: institutional learning outcomes (ILOs) typically highlight the general knowledge, skills, and dispositions all students are expected to have upon graduating from an institution of higher learning.

b. Program learning outcomes: program learning outcomes (PLOs) highlight the specific discipline’s knowledge, skills, and dispositions students are expected to know as program graduates.

c. Student learning outcomes: student learning outcomes (SLOs) clearly convey the specific and measurable behaviors students will demonstrate in order to achieve the program’s outcomes.

d. The course(s) where each student learning outcome is assessed: specific courses in the major can be designated as SLO assessment courses. Not all courses in a major will be designated as an SLO assessment course.

e. An assessment activity (also called signature assignment): a reliable and valid assignment that directly measures the stated behavior in the SLO. Examples include (but not limited to): final exam, presentation, project, performance, observations, classroom response systems, computer simulated tasks, analytical paper, case study, portfolio, critique, policy paper, comparative analysis project, qualifying or comprehensive examination, project, thesis, dissertation, and many
others. Only one assessment activity is needed to assess an SLO. It is possible that one major assessment will assess between one and three SLOs.

f. Assessment tool: an instrument used to score or evaluate the assessment activity. Examples include: rubrics (that produce scores based on established criteria), observational checklists, observational narratives, video or audio recording with written analysis, rating scales.

g. Assessment schedule: the timeline for administering the assessments and collecting the data. Examples include staggering SLO assessments over a five-year period.

h. How the assessment data and findings will be quantitatively or qualitatively reported: examples of ways to report assessment data include the number/percentage of those scoring at or above 4.0 on a 5.0 point scale on the assessment used to measure mastery of a specific SLO; number or percentage of students scoring at the highly proficient level; instructor observational narrative that includes analysis and findings to qualitatively show trends and patterns; mean scores of all who exhibited desired traits or behaviors on an observational checklist.

i. Who will collect, analyze, and interpret student learning outcome data: possibilities include a faculty committee, college or university assessment office personnel, assessment coordinator or college administrator who assumes data collection, analysis and interpretation responsibilities.

j. Program data/findings dissemination schedule: the frequency data will be disseminated to identified stakeholders.

k. Anticipated strategies on how outcome data will be used to “close the loop”: how data will be used to respond to issues or areas of concern. Examples include revising a) syllabi, b) SLOs, c) assessment assignments, d) teaching methods, e) program curriculum.

The basic template below provides a sequential and developmental picture of every component in the assessment plan. Graphically displaying ILOs, PLOs and SLOs show the unifying thread between all outcome levels.
<table>
<thead>
<tr>
<th>ILOs</th>
<th>PLOs</th>
<th>SLOs</th>
<th>Course where each SLO is assessed</th>
<th>Assessment activity/assignment used to measure each SLO</th>
<th>Assessment tool used to measure outcome success</th>
<th>Assessment schedule – how often SLOs will be assessed</th>
<th>How data/findings will be quantitatively or qualitatively reported</th>
<th>Designated personnel to collect, analyze, and interpret student learning outcome data</th>
<th>Program data/findings dissemination schedule</th>
<th>Closing the loop strategies</th>
</tr>
</thead>
</table>

It is expected that assessments will be refined or changed as a program develops and matures. In graduate degree programs, if an assessment to measure a SLO occurs outside of a course setting, (such as a comprehensive exam, exam through an outside accrediting agency, or a thesis or project), please indicate.

**Curriculum Map Matrix**

_The curriculum map matrix identifies the observable and measureable student learning outcomes (SLOs), the courses where they are found, and where content is “introduced (I),” “developed (D),” and “mastered (M).” The map insures that all student learning outcomes are represented across the curriculum at the appropriate times. Please see Appendix B for an example._

(WASC 2013 CFR: 2.4, 2.5, 2.6, 2.7)
**Curriculum Map Matrix (Sample Template)**

*(Where are SLOs Introduced, Developed, and Mastered)?*

<table>
<thead>
<tr>
<th>SLO 1: (write SLO here)</th>
<th>COURSE # XXX: Title</th>
<th>COURSE # XXX: Title</th>
<th>COURSE # XXX: Title</th>
<th>COURSE # XXX: Title</th>
<th>COURSE # XXX: Title</th>
<th>COURSE # XXX: Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 2: (write SLO here)</td>
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<td>SLO 3: (write SLO here)</td>
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<td>SLO 4: (write SLO here)</td>
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<td>SLO 5: (write SLO here)</td>
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<td>SLO 6: (write SLO here)</td>
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<tr>
<td>SLO 7: (write SLO here)</td>
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</tbody>
</table>

*Place an I, D, or M in each cell above to indicate where the program content related to each SLO is introduced (I), developed (D), and/or mastered (M). SLO content may be delivered in more than just six courses as indicated in the above table.*
c. Indicate total number of units required for graduation.

Please indicate the total number of units required for graduation from the program and indicate whether they are semester or quarter units. The total should include all prerequisites.

d. Include a justification for any baccalaureate program that requires more than 120-semester units or 180-quarter units. Programs proposed at more than 120 semester units will have to provide either a Title 5 justification for the higher units or a campus-approved request for an exception to the Title 5 unit limit for this kind of baccalaureate program.

Every attempt should be made to design the curriculum efficiently to meet the Title 5 requirement limiting program units to 120/180. This could involve program learning outcome revisions, extensive curriculum content analysis, combining and streamlining course content, or a re-examination of and realignment with accreditation agency required outcomes, for example.

e. If any formal options, concentrations, or special emphases are planned under the proposed major, identify and list the required courses. Optional: You may propose a CSU degree program code and CIP code for each concentration that you would like to report separately from the major program.

To ensure the integrity of degree programs, each approved degree title is to be associated with only one set of curricular requirements. Requirements in addition to the core curriculum may be achieved through use of a subprogram (an option, concentration, or special emphasis), as noted in Executive Order 1071. An option, concentration, or special emphasis must constitute less than one half of the units required in the major core to insure that the program’s student learning outcomes can be achieved by all enrolled students, regardless of subprogram pursued. Indicate which courses are the foundational and those that extend foundational learning.

f. List any new courses that are: (1) needed to initiate the program and (2) needed during the first two years after implementation. Include proposed catalog descriptions for new courses. For graduate program proposals, identify whether each new course would be at the graduate-level or undergraduate-level.

Only a list of the new courses and the proposed catalog descriptions are required for this section.

(WASC 2013 CFR: 2.1, 2.2)
g. Attach a proposed course-offering plan for the first three years of program implementation, indicating likely faculty teaching assignments.

(WASC 2013 CFR: 2.2b)

In table format, list the courses to be offered each year of the program. Indicate in which semester or quarter the courses will be offered and who might teach the course.

h. For master’s degree proposals, include evidence that program requirements conform to the minimum requirements for the culminating experience, as specified in Section 40510 of Title 5 of the California Code of Regulations.

Title 5 states that all master’s degree programs must have a culminating experience. Programs can include any one of the following three options: 1) a thesis, 2) a project, or 3) comprehensive examination. Be sure to indicate which type of culminating experience will be required. If a thesis or project, sufficient narrative should address the research skills required to meet the culminating experience requirements.

i. For master’s degree proposals, cite the corresponding bachelor’s program and specify whether it is (a) subject to accreditation and (b) currently accredited.

Not all master’s degrees will have a corresponding bachelor’s degree program. If that is the case, please indicate.

(WASC 2013 CFR: 2.2b)

j. For graduate degree programs, specify admission criteria, including any prerequisite coursework.

List all admission criteria to the program as well as any prerequisites that must be completed before formal acceptance into the program. The criteria should match the catalog description in 3b above.

k. For graduate degree programs, specify criteria for student continuation in the program.

Describe the academic criteria that must be met in order for a student to remain in the program.

l. For undergraduate programs, specify planned provisions for articulation of the proposed major with community college programs.

Provide specific examples of community college programs contacted or those where articulation agreements have been explored or adopted.
m. Provide advising “roadmaps” that have been developed for the major.

*For this section, a table or chart providing several options for students to follow that include which classes to take and when to take them for all years while enrolled in the program is helpful. This will assist students to stay on track to graduate in a timely manner.*
Example:

<table>
<thead>
<tr>
<th>Program Name - Advising Roadmap - Recommended Course Sequence</th>
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<tbody>
<tr>
<td>Freshman Year (xx units)</td>
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<td>Fall</td>
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<td>Total:</td>
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<th>Sophomore Year (xx units)</th>
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<td>Fall</td>
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<td>Total:</td>
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<th>Junior Year (xx units)</th>
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<td>Fall</td>
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<tr>
<td>Total:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior Year (xx units)</th>
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<tbody>
<tr>
<td>Fall</td>
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<td></td>
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<tr>
<td>Total:</td>
</tr>
</tbody>
</table>

n. Describe how accreditation requirements will be met, if applicable, and anticipated date of accreditation request (including the WASC Substantive Change process).

*If applicable, indicate in addition toWSCUC, the name of the accreditation agency, the discipline specific accreditation requirements, and the intended date of application.*

(WASC 2013 CFR: 1.8)

**Accreditation Note:**

*Master’s degree program proposals*
If subject to accreditation, establishment of a master’s degree program should be preceded by national professional accreditation of the corresponding bachelor’s degree major program.

*Fast-track proposals*

Fast-track proposals cannot be subject to specialized accreditation by an agency that is a member of the Association of Specialized and Professional Accreditors unless the proposed program is already offered as an authorized option or concentration that is accredited by an appropriate specialized accrediting agency.

5. **Need for the Proposed Degree Major Program**

   a. List other California State University campuses currently offering or projecting the proposed degree major program; list neighboring institutions, public and private, currently offering the proposed degree major program.

   *Please provide a list of at least three other CSU campuses currently offering or planning to offer the same degree major program. Provide a list of at least three other public (outside the CSU system) or private institutions in the immediate vicinity also offering the program. If there are no programs offering the same program or if less than three, please indicate.*

   b. Describe differences between the proposed program and programs listed in Section 5a above.

   *The most efficient way to respond to this prompt is to make a side-by-side comparison of courses offered in the proposed program against those offered in the other programs listed in 5a above. Highlight those courses in the proposed program that are different from the others. Add a brief narrative, if needed, to further explain how the proposed program differs.*

   c. List other curricula currently offered by the campus that are closely related to the proposed program.

   *Investigate if there are other programs on the campus offered via any format (self support, online, program in other departments, etc.) that are similar in content and/or purpose to the proposed program. Make a side-by-side comparison chart of the courses in each.*

   d. Describe community participation, if any, in the planning process. This may include prospective employers of graduates.

   *List all who participated in the planning/development of the program and their professional credentials.*

   e. Provide applicable workforce demand projections and other relevant data.
In order to respond to this prompt, use government statistics or other credible evidence such as employer letters attesting to the need of graduates in the field. Overall, the narrative must show the demand for graduates trained in the curricula offered in this program. The key to completing this section successfully is the strength, type and extensiveness of the evidence provided.

Note: Data Sources for Demonstrating Evidence of Need

APP Resources Web [http://www.calstate.edu/app/resources.shtml](http://www.calstate.edu/app/resources.shtml)

US Department of Labor, Bureau of Labor Statistics

California Labor Market Information

6. Student Demand

a. Compelling evidence of student interest in enrolling in the proposed program. Types of evidence vary and may include national, statewide, and professional employment forecasts and surveys; petitions; lists of related associate degree programs at feeder community colleges; reports from community college transfer centers; and enrollments from feeder baccalaureate programs, for example.

The evidence of student interest must be specific and compelling. Please include as many pieces of solid evidence as possible indicating students will indeed enroll in the program. Student petitions gathered over several semesters, prospective candidate surveys indicated intent to enroll if offered, and increased enrollments over time in the related field at feeder institutions are just a few examples of strong and compelling evidence.

b. Identify how issues of diversity and access to the university were considered when planning this program. Describe what steps the program will take to insure ALL prospective candidates have equitable access to the program. This description may include recruitment strategies and any other techniques to insure a diverse and qualified candidate pool.

When responding to this prompt, possible diversity categories could include race, ethnicity, social class, gender, sexual orientation, disability or exceptionality, second language and linguistic considerations, culture, economics, philosophy, religion, and politics. Evidence of insuring equitable access and consideration might include a brief description of recruitment procedures, candidate selection and evaluation procedures or an application rating rubric identifying multiple measures of evaluation.

c. For master’s degree proposals, cite the number of declared undergraduate majors and the degree production over the preceding three years for the corresponding baccalaureate program, if there is one.
A simple table listing the number of declared undergraduate majors and number of degrees produced is sufficient for this section.

d. Professional uses of the proposed degree program.

Include a description of how a graduate of the program will be able to use the degree in the professional world. What specific jobs or employment opportunities will be available for possible employment?

e. Specify the expected number of majors in the year of initiation and three years and five years thereafter.

A simple table projecting the number of majors in years one, three, and five is adequate for this section.

7. Existing Support Resources for the Proposed Degree Major Program

Note: Sections 7 and 8 should be prepared in consultation with the campus administrators responsible for faculty staffing and instructional facilities allocation and planning. A statement from the responsible administrator(s) should be attached to the proposal assuring that such consultation has taken place.

a. Faculty who would teach in the program, indicating rank, appointment status, highest degree earned, date and field of highest degree, professional experience, and affiliations with other campus programs. Note: For all proposed graduate degree programs, there must be a minimum of five full-time faculty members with the appropriate terminal degree. (Coded Memo EP&R 85-20)

Please provide a complete listing of all proposed faculty who would teach in the program. Be sure to provide information addressing all areas requested.

b. Describe facilities that would be used in support of the proposed program.

If existing space and facilities will be used to support the program, include a brief description of the type of space and facilities that will be utilized. This might include a listing of the number and types of classrooms, labs, or off campus facilities. If a self-support program, be sure to note any facilities fees in the budget.

c. Provide evidence that the institution provides adequate access to both electronic and physical library and learning resources.

The library should provide a report on the resources currently available to support the program. This might include counts and holdings of hard copies of
books and periodicals and also a listing of the appropriate data bases and online resources that are held by the library to support the program.

d. Describe academic technology, equipment, and other specialized materials.

Provide a listing of the applicable technology, equipment and any other materials utilized to support the program. Depending on the discipline, examples might include computer labs (including iPads, other tablets, smartphones, software simulations, etc.), distance learning technology, digital production equipment, etc.

8. Additional Support Resources Required

Note: If additional support resources will be needed to implement and maintain the program, a statement by the responsible administrator(s) should be attached to the proposal assuring that such resources will be provided.

a. Describe additional faculty or staff support positions needed to implement the proposed program.

If new positions will be required to offer this program, provide a cogent argument why the position(s) is needed. Justify the reasons which might include accreditation requirements, retirements, need for specialized skills, etc. The level of support from the responsible administrator will be a key factor in determining the strength of the argument.

b. Describe the amount of additional lecture and/or laboratory space required to initiate and to sustain the program over the next five years. Indicate any additional special facilities that will be required. If the space is under construction, what is the projected occupancy date? If the space is planned, indicate campus-wide priority of the facility, capital outlay program priority, and projected date of occupancy. Major capital outlay construction projects are those projects whose total cost is $610,000 or more (as adjusted pursuant to Cal. Pub. Cont. Code §§ 10705(a); 10105 and 10108).

As in “a” above, a cogent argument will be needed to justify a request for additional space requiring additional financial resources. Written support from the responsible administrator will strengthen this request.

c. Include a report written in consultation with the campus librarian which indicates any necessary library resources not available through the CSU library system. Indicate the commitment of the campus to purchase these additional resources.
A letter from the library indicating the extent of current holdings and a commitment to securing additional library resources if needed will support this section.

d. Indicate additional academic technology, equipment, or specialized materials that will be (1) needed to implement the program and (2) needed during the first two years after initiation. Indicate the source of funds and priority to secure these resource needs.

9. Self-Support Programs

a. Confirm that the proposed program will not be offered at places or times likely to supplant or limit existing state-support programs.

In order to meet this requirement, self-support programs are generally offered in the evenings or on weekends. They can also be offered at off-site facilities with approvals from the appropriate off-site administrator.

b. Explain how state-support funding is either unavailable or inappropriate.

Simply stating state-support funds are not available is not sufficient. Compelling evidence, such as a statement from the responsible administrator or other forms of documentation, is needed. An example of inappropriate use of state general fund appropriations would include courses or programs delivered primarily out of state.

c. Explain how at least one of the following additional criteria shall be met:

i. The courses or program are primarily designed for career enrichment or retraining;

   Generally, if the program is for career enrichment, accepted students should already be in the designated field or have had prior job experience in the same discipline. An admission requirement may even include current employment in the field or in a related discipline. If retraining, students may have already been in the workforce for a period of time. They may need retraining due to job obsolescence, reduction in force, etc.

ii. The location of the courses or program is significantly removed from permanent, state-supported campus facilities;

   Please note “significantly removed” refers to geographical location.

iii. The course or program is offered through a distinct technology, such as online delivery;
iv. For new programs, the client group for the course or program receives educational or other services at a cost beyond what could be reasonably provided within CSU Operating Funds;

Many programs require intense supervision or individual advising on an ongoing basis. These types of services require extra time that would not normally be provided in a state-support program.

v. For existing programs, there has been a cessation of non-state funding that previously provided for educational or other services costing beyond what could be reasonably provided within CSU Operating Funds.

d. For self-support programs, please provide information on the per-unit cost to students and the total cost to complete the program (in addition to the required cost recovery budget elements listed in the checklist found earlier in this document).

Successful proposals include a detailed budget addressing each element in the self-support program proposal budget checklist. It is important to clearly identify all sources of revenue and all anticipated expenditures. The budget must document the program will be sustainable over several years and that expected revenue will not exceed program costs. An Excel budget spreadsheet is an excellent tool to present budget data showing multiple cohorts if two or more cohorts overlap. It is also helpful to define any line items that may be unique to a specific campus. This will insure budget reviewers understand all types of revenue and expenditures listed. Please see Appendix C for a sample budget template. Campuses are not required to use this template, but at a minimum, budgets should include all line items on the sample. More line items may be added as appropriate to the specific program.
### Appendix A

**Example of a Comprehensive Program Assessment Plan**

<table>
<thead>
<tr>
<th>University Learning Objectives (ULOs)</th>
<th>Program Learning Outcomes (PLOs)</th>
<th>Student Learning Outcomes (SLOs)</th>
<th>Course where SLOs are assessed</th>
<th>Assessment schedule – how often SLOs will be assessed</th>
<th>Assessment activity or assignment used to measure each SLO</th>
<th>Assessment tool used to measure outcome success</th>
<th>How data findings will be reported</th>
<th>Designated personnel to collect, analyze, and interpret data</th>
<th>Closing the loop strategies</th>
<th>Program findings dissemination schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULO 1: Think critically and creatively</td>
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<td>ULO 2: Demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of arts, sciences, and technology</td>
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<td>ULO 3: Work productively as individuals and in groups</td>
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<tr>
<td>ULO 4: Think critically and creatively</td>
<td>PLO 1: Graduates show technical competence in the discipline of nutrition science</td>
<td>SLO 1: Apply fundamental principles of nutrition science</td>
<td>FSN 581: Graduate seminar in Food, Science, and Nutrition</td>
<td>Once every two years starting in year one.</td>
<td>Research paper</td>
<td>Rubric designed around criteria for each SLO</td>
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<tr>
<td></td>
<td>PLO 2: Graduates show technical competence in the discipline of nutrition science</td>
<td>SLO 2: Experiments, analyze, and interpret fundamental scientific concepts</td>
<td>FSN 516: Population Health and Epidemiology</td>
<td>Alternating every year one, 329 every two years.</td>
<td>Case Study/Written Assignment</td>
<td>Report on percentage of students that meet or exceed a minimum level established for each SLO.</td>
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<td></td>
<td>PLO 3: Graduates show technical competence in the discipline of nutrition science</td>
<td>SLO 3: Application of scientific method to diets</td>
<td>FSN 589: Thesis</td>
<td>Once every two years starting in year two.</td>
<td>Thesis project</td>
<td>The assessment committee will review the data and identify where improvement is needed.</td>
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<tr>
<td>University Learning Objectives (ULOs)</td>
<td>Program Learning Outcomes (PLOs)</td>
<td>Student Learning Outcomes (SLOs)</td>
<td>Course where SLOs are assessed</td>
<td>Assessment schedule – how often SLOs will be assessed</td>
<td>Assessment activity or assignment used to measure each SLO</td>
<td>Assessment tool used to measure outcome success</td>
<td>How data findings will be reported</td>
<td>Designated personnel to collect, analyze, and interpret data</td>
<td>Closing the loop strategies</td>
<td>Program findings dissemination schedule</td>
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<tr>
<td>ULO 3: Demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of arts, sciences, and technology</td>
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<td>ULO 4: Work productively as individuals and in groups</td>
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<tr>
<td>ULO 5: Use their knowledge and skills to make a positive contribution to society</td>
<td>PLO 2: Graduates can design, analyze, and interpret nutrition research</td>
<td>SLO 1: Experiments, analyze, and interpret fundamental scientific concepts</td>
<td>FSN 589: Graduate seminar in Food, Science, and Nutrition</td>
<td>Once every two years starting in year two.</td>
<td>Thesi project</td>
<td>Rubric designed around criteria for each SLO</td>
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<tr>
<td></td>
<td>PLO 2: Graduates can design, analyze, and interpret nutrition research</td>
<td>SLO 5: Design interpretation of research data</td>
<td>FSN 589: Thesis</td>
<td></td>
<td>Report on percentage of students that meet or exceed a minimum level established for each SLO.</td>
<td></td>
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<tr>
<td></td>
<td>PLO 3: Graduates can design, analyze, and interpret nutrition research</td>
<td>SLO 6: Present and defend original thesis research</td>
<td>FSN 589: Oral and written thesis</td>
<td></td>
<td>The assessment committee will review the data and identify where improvement is needed.</td>
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<td>University Learning Objectives (ULOs)</td>
<td>Program Learning Outcomes (PLOs)</td>
<td>Student Learning Outcomes (SLOs)</td>
<td>Course where SLOs are assessed</td>
<td>Assessment schedule – how often SLOs will be assessed</td>
<td>Assessment activity or assignment used to measure each SLO</td>
<td>Assessment tool used to measure outcome success</td>
<td>How data findings will be reported</td>
<td>Designated personnel to collect, analyze, and interpret data</td>
<td>Closing the loop strategies</td>
<td>Program findings dissemination schedule</td>
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<tr>
<td>ULO 3: Demonstrate expertise in a scholarly discipline and understand that discipline in relation to the larger world of arts, sciences, and technology</td>
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<td>ULO 4: Work productively as individuals and in groups</td>
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<tr>
<td>ULO 5: Use their knowledge and skills to make a positive contribution to society</td>
<td>PLO 3: Graduates can communicate and work effectively and with integrity in individual and group settings</td>
<td>SLO 1: Experiments, analyze, and interpret fundamental scientific concepts</td>
<td>FSN 589: Graduate seminar in Food, Science, and Nutrition</td>
<td>Once every two years starting in year two.</td>
<td>Oral presentation and written thesis</td>
<td>The thesis advisor will monitor the assessment using a rubric</td>
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<td></td>
<td>PLO 3: Graduates can communicate and work effectively and with integrity in individual and group settings</td>
<td>SLO 1: Experiments, analyze, and interpret fundamental scientific concepts</td>
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<tr>
<td>University Learning Outcomes (ULOs)</td>
<td>Program Learning Outcomes (PLOs)</td>
<td>Student Learning Outcomes (SLOs)</td>
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<td>Assessment activity or assignment used to measure each SLO</td>
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<td>How data findings will be reported</td>
<td>Designated personnel to collect, analyze, and interpret data</td>
<td>Closing the loop strategies</td>
<td>Program findings dissemination schedule</td>
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<tr>
<td>ULO 4: Work productively as individuals and in groups</td>
<td>PLO 3: Graduates can communicate and work effectively and with integrity in individual and group settings</td>
<td>SLO 7: Model collegial behavior working in research teams</td>
<td>FSN 599 Thesis</td>
<td>Once every two years starting in year two</td>
<td>Research team</td>
<td>Rubric designed around criteria for each SLO</td>
<td>Report on percentage of students that meet or exceed a minimum level established for each SLO</td>
<td>The supervisor will administer the assessment. An assessment committee will analyze the data.</td>
<td>The instructor will administer the assessment. An assessment committee will analyze the rubric data.</td>
<td>Assessment data will be reported to Academic Programs and Planning office. The university Academic Assessment Council will review the reports to provide feedback on assessment activities and data. Feedback will be used to improve assessment plans for the following year.</td>
</tr>
</tbody>
</table>
# Appendix B

Example of a Curriculum Mapping Matrix

**MS Nutrition**

<table>
<thead>
<tr>
<th>COURSE FSN 581 Grad Seminar in Food, Science, and Nutrition</th>
<th>COURSE FSN 528 Biochemical and Molecular Aspects of Human Macronutrient Metabolism</th>
<th>COURSE FSN 529 Metabolic Molecular Aspects of Vitamins</th>
<th>COURSE FSN 530 Metabolic Molecular Aspects of Minerals</th>
<th>COURSE FSN 581 Nutrition Research Seminar</th>
<th>COURSE FSN 599 Thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLO 1: Explain and apply fundamental principles of nutrition science</td>
<td>I/D/M</td>
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<tr>
<td>SLO 2: Describe, analyze, interpret and apply fundamental scientific concepts</td>
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<td>D</td>
<td>D</td>
<td>D</td>
<td>M</td>
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<tr>
<td>SLO 3: Apply scientific method in thesis</td>
<td>I/D/M</td>
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<td>SLO 4: Justify the choice of research design and analysis techniques of research data</td>
<td>I/D/M</td>
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<tr>
<td>SLO 5: Defend interpretation of nutrition research data</td>
<td>I</td>
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<tr>
<td>SLO 6: Present and defend orally thesis research</td>
<td>I</td>
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<tr>
<td>SLO 7: Model collegial behavior working in research teams</td>
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<td>D/M</td>
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<tr>
<td>SLO 8: Compare, contrast, and debate fundamental theories and principles of leadership, ethics and values related to nutrition science.</td>
<td>I/D/M</td>
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</table>
## Appendix C

### Sample Budget Format

**PROJECTIONS - MS Construction Management - 30-33 units**

**12% Attrition Rate**

**2 year cohort based program**

<table>
<thead>
<tr>
<th>Cohort 1</th>
<th>Number of students</th>
<th>25</th>
<th>22</th>
<th>25</th>
<th>22</th>
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<tbody>
<tr>
<td></td>
<td>Units Students take in FY</td>
<td>15</td>
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<td>Units Students take in FY</td>
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<td>Units Students take in FY</td>
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<td>Cohort 3</td>
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<td>Cohort 4</td>
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<td>Units Students take in FY</td>
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<td>Units Students take in FY</td>
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<td>Cohort 5</td>
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<td>Units Students take in FY</td>
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<td>Units Students take in FY</td>
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<tr>
<td>Total Units</td>
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<td>15</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

### Revenue
- Tuition
- Other
- **Total Revenue**

### Direct Expenses
- **Faculty/Staff**
  - Faculty Program Coordinator
  - Faculty Program Coordinator Benefits
  - FT Tenure Track Annual Faculty
  - FT Tenure Track Benefits
  - Adjunct Faculty
  - Adjunct Benefits
  - Admin/Staff Support
  - Admin/Staff Benefits

### Other
- Library Services
- Equipment & Supplies
- Facility Fee
- Promotion, Advertising & Print
- IT/Technical Support (if online)
- **Total Direct Expenses**

### Operating Income/Margin

### Indirect Expenses
- CSU Reimbursement
- Campus Reimbursement
- Extended Education Overhead
- Other
- **Total Indirect Expenses**

### Total All Expenses

### Net Gain/Loss

### Residual Reserve %

### Loss Carry Forward

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Template originally created by Regina Eisenbach and San Marcos Extended Education budget department.