CAL MARITIME

The Educational Master Planning Guide

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1. Introduction and Background Information

1.1 Educational Master Planning Guide Task Force Membership

Spring/Summer 2014

Accreditation Liaison Officer (Chair)	Graham Benton
Dean of the Library (Co-Chair)	Rick Robison
Dean of Academics	Nael Aly
Dean of Extended Learning	Jim Burns
Director, ABS School	Donna Nincic
Chair, Academic Senate	Mike Holden
Registrar	Evelyn Andrews
University Institutional Researcher	Vacant
Director of Admissions	Marc McGee
Director of Financial Aid	Vacant
Dean, Career Center	James Dalske
Commandant of Cadets	Vacant
Corps Commander-appointed representative	Vacant
ASCMA President- appointed representative	Vacant
Faculty Representatives:	Khalid Bakhar
	Colin Dewey
	Tom Nordenholz
	Alex Parker
	Robbie Jackson

Membership Fall/Spring 2014-15

Accreditation Liaison Officer (Chair)	Graham Benton
Dean of the Library	Michele van Hoeck
University Counsel	Brigham Timpson
Dean of Academics	Nael Aly
Dean of Extended Learning	Jim Burns
Director, ABS School	Donna Nincic
Chair, Academic Senate	Mike Holden
Registrar	Evelyn Andrews
University Institutional Researcher	Gary Moser
Director of Admissions	Marc McGee
Director of Financial Aid	Craig Yamamoto
Dean, Career Center	James Dalske
Commandant of Cadets	Erin Brogam
Corps Commander-appointed representative	Tegan Church
ASCMA President- appointed representative	Max Trevino
Faculty Representatives:	Khalid Bakhar
	Colin Dewey
	Tom Nordenholz
	Alex Parker
	Robbie Jackson
	Scott Saarheim

1.2 Summary

In May of 2014, President Cropper delivered a memorandum asking for the creation of a campus-wide task force which would develop an Educational Master Planning Guide for a new Academic Master Plan. This document is the result of that task force: it is a prescriptive and descriptive work designed to prepare the institution and lay the foundation for future annual, five-year, and long-term strategic plans. It should be noted that the working name for this task force, and the preliminary title of this document and all archival material, was "The Concept of Operations for the Academic Master Plan." In its final review stages, the name was changed to better reflect its intention; however the previous title (and its acronym – COAMP) were not changed in previous documentation, such as Task Force minutes, presentations, etc.

In Section 2, specific guiding principles and assumptions (generated and distilled from previous academic efforts) are presented. These principles and assumption include the following: a desire for measured growth in student body, academic programs, and affiliated human and physical resources; a continued institutional focus on maritime and related fields; and a commitment to maintaining a residential campus with all undergraduates participating in the Corps of Cadets.

Section 3 identifies trends, opportunities and challenges both in the maritime world and in the environment of higher education, with additional information on the demographic characteristic of the post-millennial college student. As a specialized campus of the California State University, Cal Maritime must be attuned to the social, economic, and political forces that will shape the world of its graduates as well as adhere to the mission of an educational system that values quality, affordability, access, and completion.

Section 4 discusses the significance of a robust strategic enrollment management team with representation from academic departments, admissions, financial aid, institutional research, housing, and other key administrators and faculty. This team will set specific long-term enrollment goals with attention to gender, ethnicity, geography, percentage of transfer students and other variables.

The next section articulates specific recommendations for new academic and administrative policies meant to optimize the path for bringing new academic program to fruition – from planning, to initial campus approval, to CSU approval, and to implementation. The new curricular advisory group has been formed to shepherd programs through these processes.

Section 6 presents options for new and revised academic programming. These options are based upon previous workshops, retreats, third-party studies, and academic planning documents. This section also calls for the creation of three potential "research centers" which will foster and enhance the intellectual reputation of the campus in part by drawing esteemed national and international scholars with varied interests to collaborate with our faculty and share intellectual resources.

In Section 7, the need for a re-organization of the administrative structure of academic programs is recognized. The Academic Dean is the responsible agent who will, with extensive faculty

collaboration, create a plan to move the institution into a multi-school university. The role of Extended Learning as a vital division in developing future programs is embedded in this section as well.

The penultimate section discusses how academic support services – the library, institutional technology, and the simulation center – fit into strategic plans, and the final section describes the decision-making process by which a campus-wide project management software program will be selected in order to most efficiently coordinate planning processes across departments and divisions.

As the Task Force crafted each section, a series of broad goals, objectives, and outcomes were developed. For ease of access, these goals are presented in Appendix Q. Other appendices include many of the aforementioned strategic planning documents, important policies from the Chancellor's Office, and accreditation compliance material.

1.3 Objective of the Educational Master Planning Guide Document

This document attempts to describe the future characteristics of university academic programming at Cal Maritime from student, faculty, staff and administrative viewpoints. It communicates the quantitative and qualitative characteristics of the future academic master plan through a description of policies, organization, training and education, materials, leadership, people, and infrastructure and facilities needed to achieve student learning goals.

This concept of operations is meant to ameliorate the many problems assigned to failed strategic plans (they are often too ambitious, they are not integrated into campus culture, there is no consensus, there is no direct connection to resources) by laying a strong foundation across the plane between visualization and planning. Several sections of this document have very explicit goals and objectives, but to be very clear -- this is not the academic plan itself; rather, it is a guiding document meant to articulate the external and internal conditions through which future growth can take place.

1.4 Institutional Mission and Values

Cal Maritime's mission will be an integral guide star for all future planning: "We train, educate and develop graduates for positions of progressively challenging leadership responsibility in the global maritime profession. We serve as the 24/7/365 resource leader in maritime subject matter expertise for business, government and education."

Additionally, our educational community subscribes to the following ideals:

- Provide each student with a college education combining intellectual learning, applied technology, leadership development, and global awareness
- Provide the highest quality licensed officers and other personnel for the merchant marine and national maritime industries

- Provide continuing educational opportunities for those in the transportation and related industries
- Be an information and technology resource center for the transportation and related industries

Concomitant to this mission is a series of beliefs and values, and Cal Maritime is defined, in part, by the system of beliefs that make us unique as an institution of higher education. These beliefs are captured in most institutional literature, alongside the values of dedication, honor, integrity, respect, responsibility, and trust which influence how decisions are made and carried out, and how Cal Maritime interacts with internal and external constituencies.[1]

1.5 History of Academic Master Planning (2008- 2015)

Since 2009, there have been several instrumental documents, committees, and conferences which have addressed, either directly or indirectly, Cal Maritime's efforts to plan for its future. This Educational Master Planning Guide is based in part on these works. In particular, many of the guiding principles and assumptions in Section 2 have been distilled from these previous collective efforts.

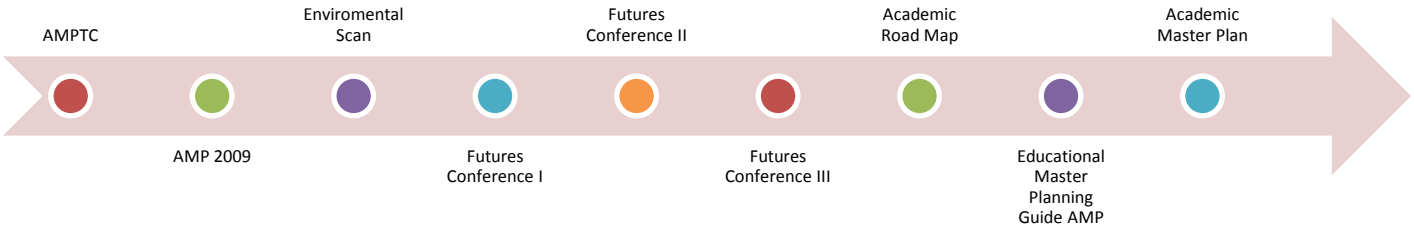


Figure 1.5.1 Timeline of Academic Master Planning

I. 2009 Academic Master Plan Template

In January of 2009, the Academic Master Plan Template Committee (AMPTC) submitted its report President Eisenhardt. The purpose of this template was to provide guidance to the committee that prepares the Academic Master Plan. This template began with an assessment of the four compass points of the strategic plan and identified critical issues in the promulgation of new academic programs. The AMPTC also offered options in various organizational structures of Academic Affairs. [See Appendix B.]

II. 2009 Academic Master Plan

In the spring of 2009, an Academic Master Plan Steering Committee was formed to create the Academic Master Plan, based upon the guidance and recommendations provided by the template committee. The Steering Committee hosted a series of open discussion sessions organized around critical issues provided in the template document. Subcommittees were formed to consider feedback elicited from these discussion sessions as well as recent faculty retreats and workshops. The core of this Academic Master Plan was broken into four key subject areas: Regional Accreditation; Academic Programs and Curricular Development; Library Services and Instructional Technologies Support; and Training Cruise, Corps of Cadets and Co-Curricular Activities. It also includes sections on University Strategic Goals and Envisioned Organizational Structures. This Academic Master Plan was accepted by the Academic Senate Executive Committee in September, 2009, and approved by the President in November, 2009. [See Appendix C.]

III. Environmental Scan/Needs Analysis (2011)

In January of 2011, with the assistance of an Environmental Scan and Needs Analysis Advisory Committee, a study was conducted under the auspices of Penson Associations, Inc. to address the level of need for programs in Cal Maritime's Academic Master Plan; potential academic synergies; applicable CPEC and State guidelines that would impact programmatic and physical expansion; potential locations if Cal Maritime should expand off-campus; and funding options other institutions have used to finance expansion and institutional development. The study concluded that there is indeed a need for programs that were identified in the 2009 Academic Master Plan and also identified 17 other programs that met the assessment criteria. The Executive Summary of the Environmental Scan/Needs Analysis is located in Appendix D.

IV. Futures Conference I (January, 2013)

On January 9-11, senior leadership from Cal Maritime (including all Vice-Presidents, Deans, Representatives from Faculty and Leadership Development) met at the Marconi Center in West Marin. In advance of this retreat, a "Systems Map of Emerging Trends in Careers in the Maritime Industry" was produced to facilitate discussions on strategic planning for the future. Subsequently, the Six-Step Decision Making model was reviewed in detail. Each member was asked to share this model with his/her department or division as it will set the foundation for decision-making processes. Finally an exercise in "Visioning Preferred Futures" led to a series of possible directions the university may choose to pursue. Outcomes from this Futures Conference included a clearer vision about the possibilities for Cal Maritime's preferred future and a shared and model for planning and decision-making.

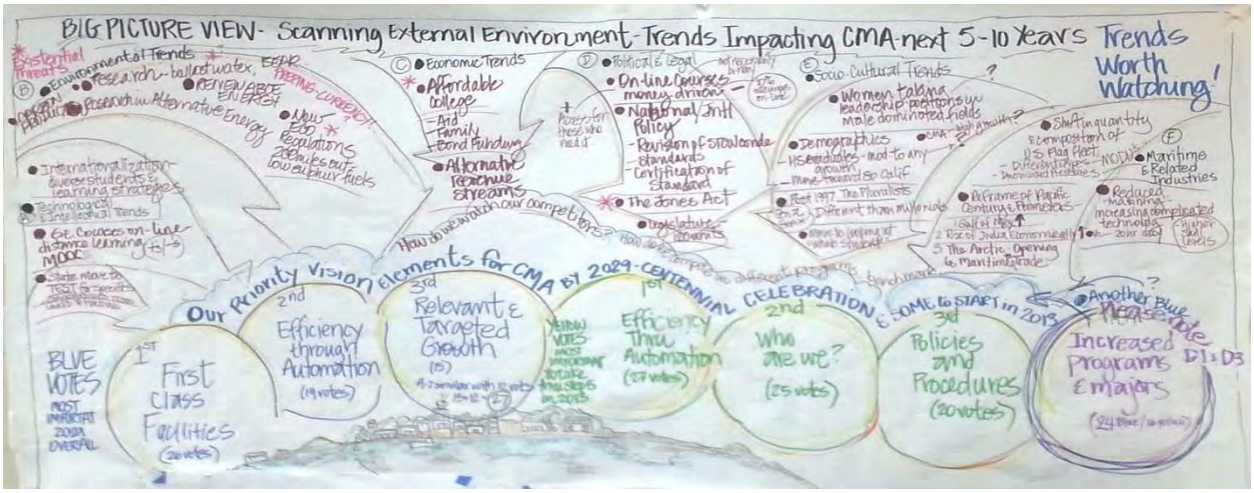


Figure 1.5.2 Visualization of Futuring, Jan. 2013, courtesy Suzanne Bailey Consulting

V. Futures Conference II (April, 2013)

Shortly after the conclusion of Futures I, a design team was assembled to prepare for Futures Conference II, which was held April 4-5. Participants were interviewed, completed a survey, and given research assignments. Present at this conference were 27 individuals, including all Directors and Academic Department Chairs as well as two members from Futures I. Participants were first asked to think through the following theme: Cal Maritime in 2029 – Aspirations, Hopes, Dreams." A later session was devoted to a detailed scan of the external environment in order to forecast what forces in the outside world might impact Cal Maritime in the next five to ten years. The final sessions of the retreat were devoted to a "dot vote" exercise. All the "vision elements" that were produced in the previous "Hopes, Dreams, and Aspirations" session were recorded and organized into categories, and participants then voted to determine: 1) which of the vision elements are most important for Cal Maritime, and 2) which vision elements need to begin imminently.[2] The results of this exercise are in Appendix E.

VI. Futures Conference III (September 2013)

The third (and largest) Futures Conference was delivered three separate times over the span of a week, utilizing the South Vallejo Community Center. All faculty, staff, and administration were invited and encouraged to attend, with 81 participants from across all campus departments including 30 faculty members but excluding three facilitators from previous conferences. See Figures 1.5.3 and 1.5.4 The sessions began with a presentation and discussion of information gathered from Futures II on the trends, disruptions, and forces in the maritime profession. The second and third parts of the conference were devoted to the six-step decision making process and a case study on how different departments faced a challenge yet were able to work it out through a unique collaborative effort.

VII. Academic Master Plan Road Map

Each of these previous planning documents and events have provided the foundation for the current academic master planning process. The Academic Master Plan Roadmap is intended to inform the Educational Master Planning Guide Task Force on issues related to future growth and the creation and development of academic programs and support services which will contribute to the identity and reputation of Cal Maritime. The Academic Master Plan Roadmap serves as a precursor to the larger Academic Master Plan effort and expresses the knowledge, goals, and objectives of faculty, staff, and administrators involved in academic programs. Those involved in the creation of the Road Map took as their starting point the 2009 Academic Master Plan. Those objectives which have been achieved were eliminated and those objectives no longer suitable were eliminated. The primary sections of the Road Map cover the exploration and development of new academic programs, institutional and programmatic accreditation, extended learning, academic support services, leadership development, research centers, organizational structure and enrollment management. The Road Map [Appendix F] was also instrumental in shaping many of the goals and objectives which are embedded through the Educational Master Planning Guide.

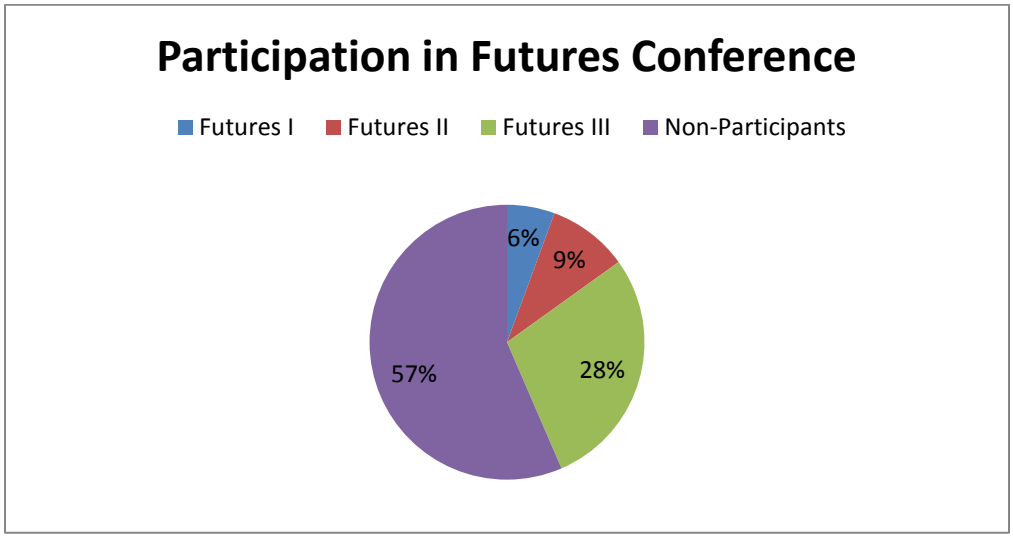


Figure 1.5.3 43% of all Cal Maritime Employees participated in at least one Futures Conference

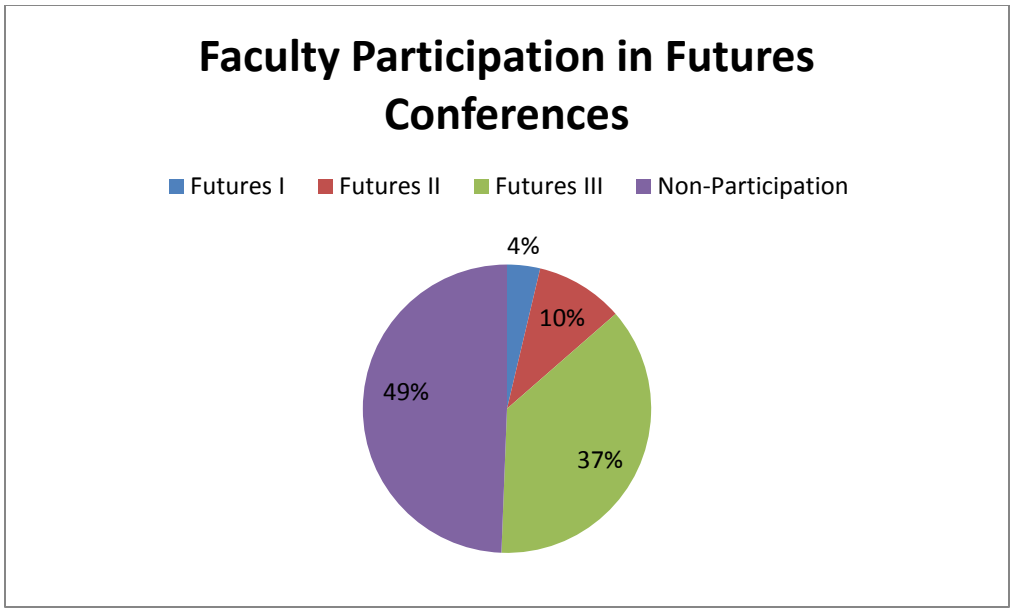


Figure 1.5.4. 51% of all Cal Maritime Faculty participated in at least one Futures Conference

2. Foundational Guidelines for Academic Master Plan

The past academic planning processes, as articulated in the previous section, deeply inform the strategic process going forward. We envision the development as three discrete phases, with 'Visioning," already completed, the "Concept Development" (of which this document is a central piece), and finally "Detailed Planning," which will commence in late spring, 2015.

Figure 2.0

2.1 Timeline of Academic Planning

This plan will look long term to 2032 over a fifteen-year span. Once the Educational Master Planning Guide document is complete and approved, it will make way for the Cal Maritime Academic Master Plan.

The Academic Master Plan will strategically plan in five-year phases, and in year four of each phase, an assessment will be made to see what was accomplished, what yet needs to be done, and how can we plan for the next stage.

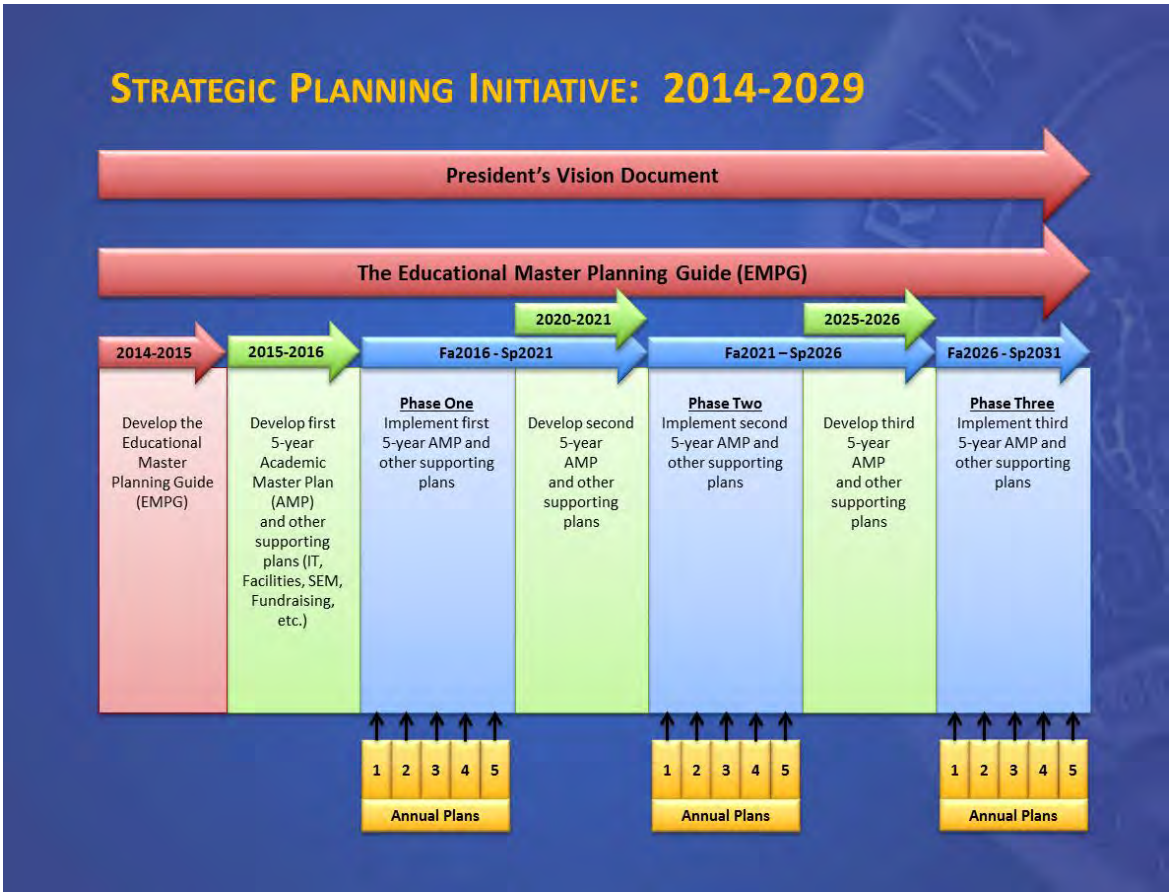


Figure 2.1.1

From Figure 2.1.1 above, it should be apparent that the Vision and the Educational Master Planning Guide precede the detailed strategic plans. It is the intent that a carefully-constructed foundation of practices and methods should allow for an efficient roll-out of five-year strategic plans, with annual plans built into these. The first five-year plan will begin to be developed immediately upon the completion of the Educational Master Planning Guide document, and will project outward from the 2016-17 Academic Year until the 2021-22 Academic Year. Embedded within each of three five year phases will be individual annual plans, with specific goals and outcomes to be obtained during that cycle.

Alignment of Academic Master Plan with Campus Strategic Planning

The Academic Master Plan will drive all other strategic planning at Cal Maritime, and thus it is important to make the needs and desires for future academic programming available to all campus constituencies.

Figure 2.1.2 The Centrality of the Academic Master Plan

Obviously, without a clear and careful liaison with the Strategic Enrollment Management Committee, the efforts of academic program planning could become problematic. Likewise, facilities and student affairs must be attuned to the number of students, the demographic nature of these students, and their co-curricular aspirations and needs and the impact of future student growth on the Corps of Cadets; not only in numbers, but in new degree areas. Without a clear understanding of future academic programming, the work of the Advancement Office may be misaligned. Thus, it is imperative that the Academic Master Plan – its five year phases and its annual plans -- be central to the work of these other divisions and organizations.

2.2 Guiding Principles and Assumptions

The following assumptions and guidelines have been distilled from documents of the Academic Master Planning processes of the past, and the consensus drawn by many constituencies through several Futures Conferences. Our campus community voiced strong desires to achieve the following characteristics for our university as we move forward.

Campus Culture and Identity

1. Cal Maritime will be *the* center of excellence for "all things maritime" with an emphasis on immersive learning.[3]

2. Cal Maritime has roots in the maritime world and will remain focused on maritime and related fields. Care will be taken not to reproduce academic programming offered elsewhere, but rather to expand curricula such that graduates can seek careers in many technical, transportation, business, international trade policy, and engineering fields.

3. Cal Maritime will strive to be a culturally- and intellectually-stimulating campus environment with a palpably high quality of life

4. Cal Maritime will be an institution that is highly responsive maritime and related industries with extended education certificate programs that assist established maritime professionals with opportunities for advancement

Growth and Conditions of Growth

5. We will grow as an institution, in FTES and FTEF. This growth will be thoughtfully measured, but aggressive when appropriate.[4]

6. For the foreseeable future, we will remain a residential campus. This is a strength and allows for many of our core values to develop.

7. For the foreseeable future, all students will remain in the Corp of Cadets and will participate in the Edwards Leadership Development Program.[5]

Campus Organization and Infrastructure

8. Sponsored Projects and Extended Learning (SPEL) will serve as the "incubator" of unique academic programs with the oversight and counsel of standing advisory boards, thoughtfully tailored curricula.

9. We will develop and sustain a relationship with Vallejo and Solano County that advances the community socially and economically.

10. We envision a 21st century campus infrastructure with beautiful green space and waterfront and multi-story buildings including a new Library and Information Commons.

11. We will advance our university onto the cutting edge of technology in administration, academics and labor practices.

2.3 Vision

As noted by *Megatrends* author John Naisbitt, "Strategic Planning is worthless – unless there is first a strategic vision."[6] Concomitant to (and in alignment with) this Educational Master Planning Guide is "The Vision Statement" [Appendix G]. This Vision Statement makes it known that "Cal Maritime has a clear, enduring responsibility to train, educate and develop graduates of progressively challenging leadership responsibility in the global maritime profession," and furthermore: "California State University's Maritime Academy will serve as the Pacific's premier maritime university, routinely adapting to change while preparing our graduates for a dynamic global profession. We will deliver a superbly qualified pool of maritime professionals to position California for economic vitality in the Pacific Century….Our future as an institution of higher education within the California State University system will be driven by our collective ability to sustain our *differentiation, relevance* and eventual *growth*.[7]

2.4 The Maritime University

It is the goal of the California Maritime Academy to achieve recognition and renown as a specialized campus of the California State University system; as the only accredited four-year degree-granting maritime university on the Pacific coast, we operate in an international as well as regional and national arena. We will achieve this status through the quality of the total educational experience of our students as well as the uniqueness of our "special" mission. Our graduates will be recognized for their knowledge, character, and experience, and will be highly sought-after candidates in all maritime and related fields. They will be well-prepared to enter those professions, but more importantly, they will progress to leadership positions wherever their interests take them. Such an institution will produce graduates who, benefitting from a high quality comprehensive education shared by all, are able to achieve excellence in the specializations required by their chosen professions. A maritime university is a special kind of institution; one that continues a long and distinct tradition based on deeply held principles and goals, but one that recognizes its special ***maritime*** identity as a variation of its identity as a ***university***. A university requires an environment of open debate and discourse, dedicated to learning, teaching, and developing the absolute best in its students, faculty, and community. A top-rate "Maritime University" will be, first and foremost, a top-rate university dedicated to the special mission of fulfilling its maritime identity.

The Maritime University will exist to serve a particular economic and industrial sector. By its nature, it will be international in vision and global in outlook. The majority of its programs will prepare students to enter professional disciplines related to marine transportation and commerce. However, professional preparation will begin with a broad and diversified education. As John Henry Newman writes, "to set forth the right standard, and to train according to it, and to help

forward all students towards it according to their various capacities, this I conceive to be the business of a University."[8] The future university will embody this principle –setting the right standards and training to meet those standards, but also helping students to realize their full potential as educated citizens of the world.

Many colleges and universities began as schools with a distinct vocational function: teacher's colleges, agricultural schools, and universities founded by religious bodies are only a few examples. Later, they evolved into comprehensive institutions; the best of these offer many programs that all continue to participate in the university mission, established in specific goals, values, and traditions. In order to achieve our vision, our Maritime University, which began as a training academy for one or two specific occupations, must evolve and grow – but in such a way that it remains a focused, intimate, university campus which – although it may in time grow beyond its initial limited vocational offerings – always retains its distinctive look, feel, and mission. The "maritime identity" of the Maritime University is expressed in everything that the university does: its character, its pedagogy, its philosophy, its course and program offerings, but does not expressly determine or limit specific goals or expression. The Maritime University will retain its core disciplines and traditions while growing in ways that are not limited by them.

2.5 Budget Cycles and Calenders

A crucial lynchpin to the success of the Academic Master Plan is its careful and conscientious calibration with fiscal needs. The Budget Committee shall work in close alignment with SPEL, with Advancement, with Facilities, as well as with all departments and divisions. At least one member of the Budget Committee shall sit on the Academic Master Planning Committee, and the Five-Year Phase plan and the Annual Reviews shall be informed by the budget process which is driven by transparency and priority-setting through the principles set at the 2015 Senior Leadership Annual Off-Site. Figure 2.5.1 outlines the annual budget planning and review cycle for 2014-2015. This shows the relationship between the State Annual Budget Cycle and that of the CSU System.

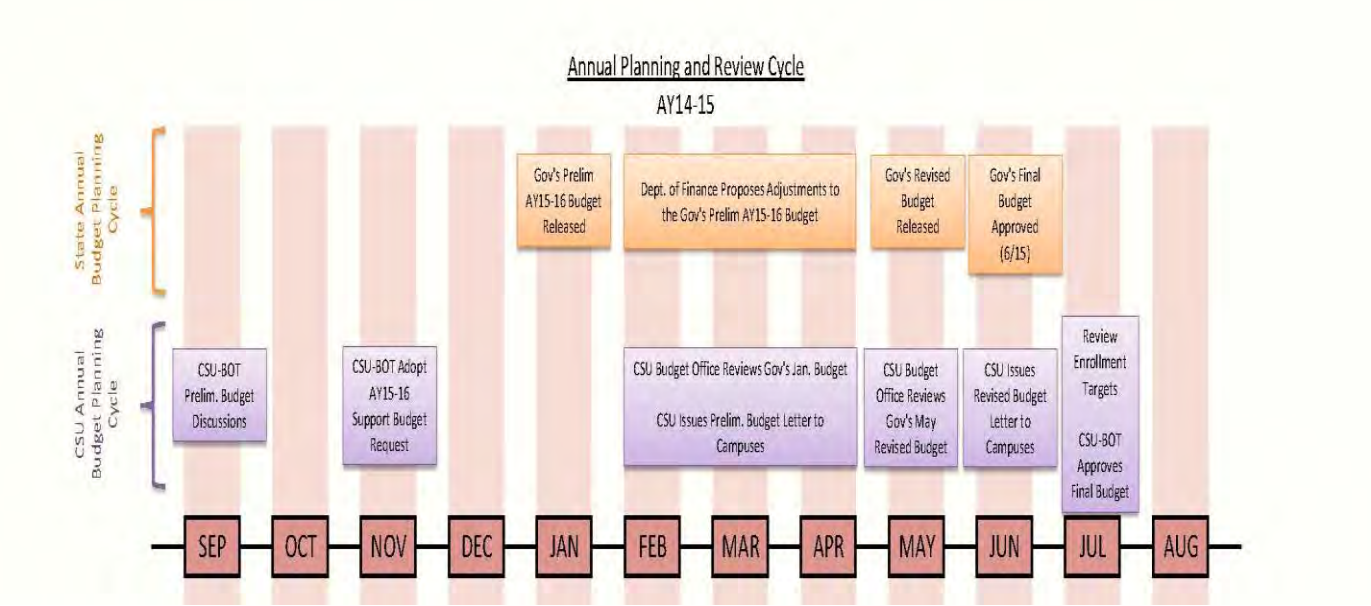


Figure 2.5.1 The Annual Budget Planning and Review Cycle

The next figure – Annual Planning and Review Cycle for the AY 15 -16 – shows how the campus budget cycle aligns with the CSU system and the state. It is the intention that the periodic sequencing outlined in this chart will be used not only for annual planning purposes, but for the Five-Year phase planning as well.

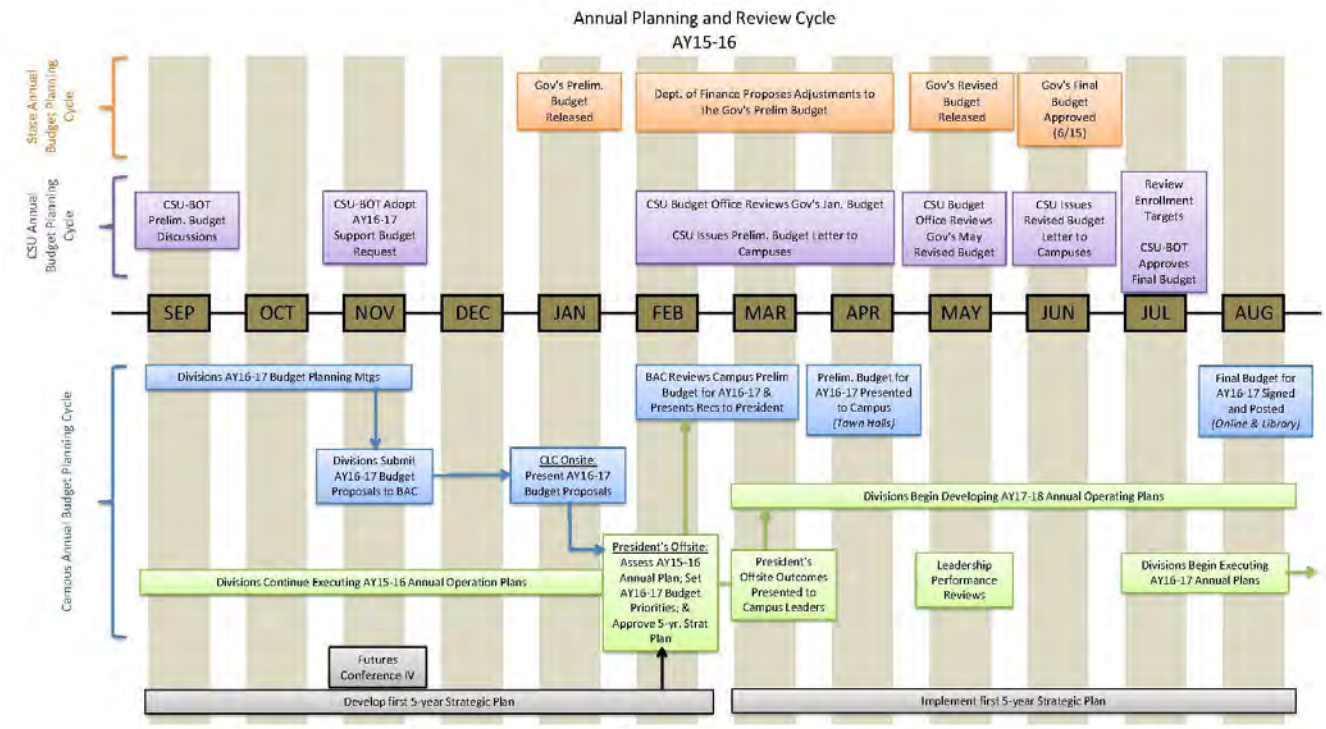


Figure 2.5.2

In the Spring of 2015, a series of budget talks involving all departments will commence, with the intention of making the budgeting process more transparent and accessible. The institution will then move toward budget prioritization actions, using the CSU's framing objectives of Quality, Access, Completion, and Affordability. This process will also help to achieve the Western Association of Schools and Colleges Standard 3, which calls for "developing and applying resources and organizational structures to ensure quality and sustainability" by ensuring "financial stability, clean audits, sufficient resources; realistic plans for any deficits; integrated budgeting; enrollment management; diversified revenue sources."[9]

2.6 EMPG Goals and Objectives

As this Educational Master Planning Guide was created, a series of broad goals were also developed. Some of these were carried over from the Academic Road Map of 2014; others were created as the task force contemplated various courses of actions which should be taken over the next fifteen years. Ultimately, these were distilled into thirty separate goals under six different

headings: SEM (Strategic Enrollment Management); EAP (Existing Academic Programs); NAP (New Academic Programs); RC (Research Centers); SM (School Model); EL (Extended Learning); and AS (Academic Services). Each of these goals is accompanied by several objectives, a responsible agent, and expected outcomes. These goals are contained in Appendix Q. While these goals have not been constructed according to SMART criteria, it is the expectation of the Task Force that these generalized goals shall be consulted frequently, and built into both the Annual Plans and the Five-Year Phase Plans.

3. Trends in Maritime Industries and Higher Education

Any strategic planning for academic programming must, of course, be situated in the world that those new programs hope to serve. The purpose of this section is not to identify every possible trend in the geopolitical and environmental landscapes, but rather to provide a context for the academic master plan and enable those responsible for the development of new programs to adequately understand the significance of anticipating changes in the external environment. *The 2009 California Maritime Academy Master Plan* recognized that "Cal Maritime seeks to become a maritime university that provides education, training, experience and expertise in all things maritime. As such, we will explore the vastness of the word 'maritime' and the expressions we use such as 'maritime related fields."[10]

There is a healthy suspicion of trend extrapolations given the velocity and unpredictability of change, but the greater folly is to ignore trends which will shape the maritime world in the next fifteen years. It must be noted at the outset that for every new program proposed, a deeper, more sustained trend and needs analysis must be performed; this is part of the program approval process as outlined in Section 6. The purpose here is to draw the larger contours of the system. Moreover, trends, disruptions, alterations, and forces in the external world will need to be re-assessed every five years with new plans as they are unveiled.

According to *The 2011 Environmental Scan/Needs Analysis Report,* the highest demands for new jobs are in many areas synergistic with Cal Maritime's programs and its heritage. This includes high demand areas (over 300 new jobs per year) in "the fields of logistics and supply chain, mechanical engineering, electrical engineering, occupational health and safety, environmental science, and hospitality." There is also significant demand (100 – 300 new jobs per year) for construction engineering,/civil engineering technologists, environmental engineers, homeland security experts, and transportation management specialists." Finally, the study notes that there are other areas which had less demand in terms of sheer numbers, but offered significant opportunity for niche programs that would be unique in the State – especially if synergistic with current or potential new programs. These included technical writing; electronics engineering technology; GIS, cartography and remote sensing, and human factors systems and psychology."[11] It is important to note that many of these careers identified by the environmental consultants are aligned with Cal Maritime's earlier master plan.

Trends in the maritime world and trends in higher education are treated separately in the subsequent two subsections – but they are certainly inter-related for any academic planning purposes. Also included here is a brief guide to references (which can always be updated and revised by research personnel) as well as a call for a commitment to advisory boards
Finally, for both maritime and higher education trends, any analysis should include the following considerations as outlined in figure 3.0 These are not, of course, discrete categories, and many of these are over-determined and interdependent with one another.

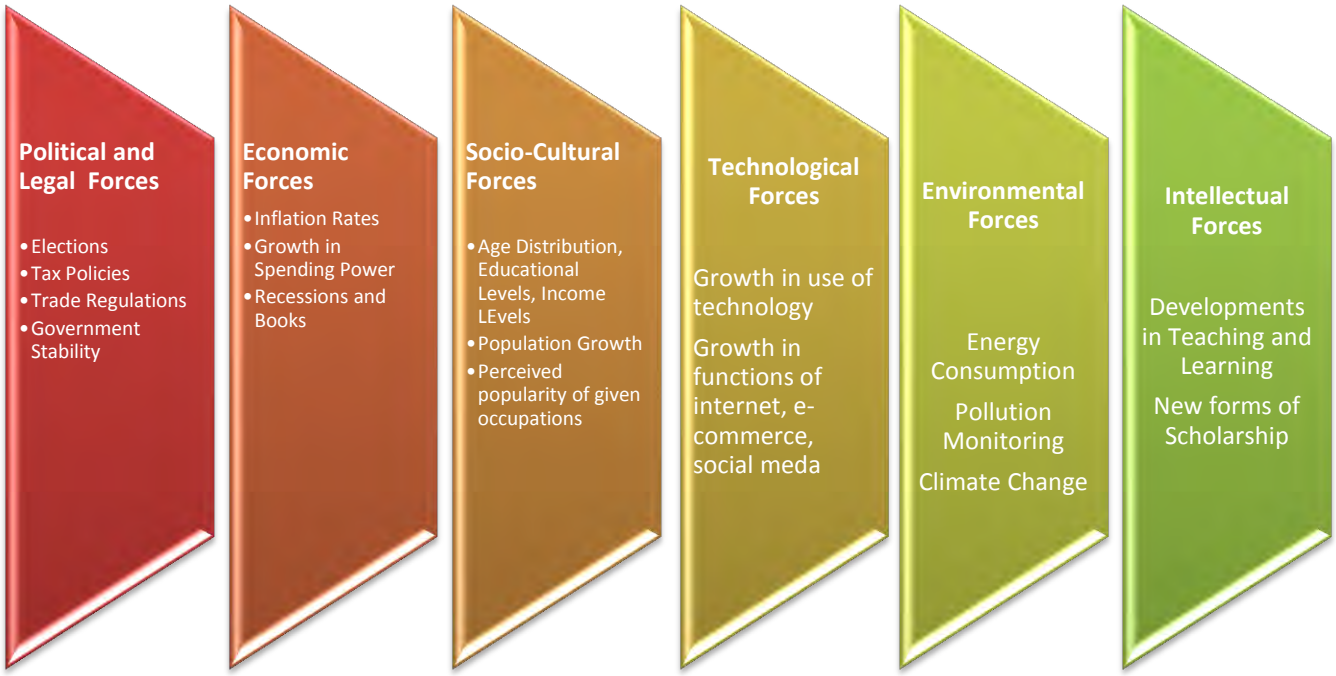


Figure 3.0

3.1 The Maritime Industry and Related Fields

Per Section 2.5, Cal Maritime aspires to be the premier maritime university of the country; as such, attention to maritime trends is paramount to our success. According to President Cropper, "Cal Maritime is in a privileged position as we anticipate our future as a maritime academy. We see a world that will continue to "globalize" – whether it is in supply chains, business interdependence, or market opportunities. The expanding population of over 2 billion people in Asia, with a growing middle class, bodes well for greater maritime trade-related opportunities. It also provides opportunities for Cal Maritime to extend its reach educationally in a period that has been coined 'the American Pacific Century.' Our graduates will enter a global maritime profession that will highly value their technical, cultural, and leadership competencies."[12]

The US Bureau of Labor Statistics predicts a 20% growth in water transportation workers and a 15% growth in transportation/material movement careers through 2020, principally due to an aging workforce.[13] However, it must also be recognized that there is now a deep drop in U.S. flagged vessel working in foreign trade: "According to statistics as compiled by the US Maritime Administration, in 1955 there were 1,072 vessels sailing internationally flying the US Flag. Currently […] the Jones Act component of the US ocean- going fleet is 98. Some of this drop represents the increased size of the vessels of today. (the 1,072 ships in 1955 combined for approximately 13 million deadweight tons while the current US Flag fleet of 191 ships represent 9 million deadweight tons). Overall, in 1955, the US Flag fleet represented almost 25% of the

world's overall tonnage while the US share today is approaching only a mere 2% of total world tonnage."[14]

While the precipitous drop in the US Flag fleet is alarming to many and should definitely be a concern for all maritime academies, the United States is still the world's largest trading nation and the world's largest maritime nation and the aforementioned growth in water transportation workers allows for a re-visioning of the kinds of maritime education and training to develop. Additionally, "Trends in technology also provide Cal Maritime with unique opportunities to advance the maritime professions. Continued improvements in communications and information systems technology allow our faculty to include undergraduate research in future communications and tracking systems, electronic navigation, port management infrastructure and software, or remotely operated vessels and systems."[15]

Instead of attempting to predict precise trends, implications, and outcomes here, it is the responsibility of the architects of the Annual and Five-Year phase plans to periodically ask themselves: what are the environments that need to be scanned? Who are the players, what is the situation, when is this happening, why is it occurring, and how can be respond?[16]

Toward this end, the Educational Master Planning Guide Task Force recommends that all future academic master plan rely heavily on the available scholarly resources (with the understanding that critical biases underscore many industry-produced and funded publications). It is also strongly recommended Industry Advisory boards that currently serve the institution continue to be a consulting asset.[17]

3.2 The Changing Landscape of Higher Education and Student Demographics

Just as trends in the maritime world will influence the direction of Cal Maritime's academic programming, so too will forces in the environment of higher education and the shifting nature of student demographics determine the scope and direction of the university. For all new programs (and existing programs which may be revised), attention must be given to the role of the California State University in helping to shape the identity of Cal Maritime, changes in student demography and college preparedness, and advances in technology which fundamentally alter pedagogical strategies and research opportunities.

3.2.1 Relationship to the California State University System

As a campus of the California State University – even as a specialized and unique campus of the CSU -- Cal Maritime is bound to the specific mission of the system, and all new programs should be aligned with this mission, as it is stated:

- To advance and extend knowledge, learning, and culture, especially throughout California.

- To provide opportunities for individuals to develop intellectually, personally, and professionally.
- To prepare significant numbers of educated, responsible people to contribute to California's schools, economy, culture, and future.
- To encourage and provide access to an excellent education to all who are prepared for and wish to participate in collegiate study.
- To offer undergraduate and graduate instruction leading to bachelor's and higher degrees in the liberal arts and sciences, the applied fields, and the professions, including the doctoral degree when authorized.
- To prepare students for an international, multi-cultural society.
- To provide public services that enrich the university and its communities.[18]

Moreover, in May of 2008, the Board of Trustees adopted *Access to Excellence* as the new strategic plan for the California State University, and Ca Maritime's strategic processes must also be aligned with this plan. Overall, the CSU committed to achieving gains on eight key commitments:

1. Reduce Existing Achievement Gaps
2. Plan for Faculty Turnover and Invest in Faculty Excellence
3. Plan for Staff and Administrative Succession and Professional Growth
4. Improve Public Accountability for Learning Results
5. Expand Student Outreach
6. Enhance Student Opportunities for "Active Learning"
7. Enhance Opportunities for Global Awareness
8. Act on the CSU's Responsibility to Meet Postbaccalaureate Needs, Including those of Working Professionals

"Recognizing the distinctly different characteristics of universities within the CSU, campus administrators, faculty and staff were provided flexibility in terms of identifying operational goals to support *Access to Excellence* […] The eight commitments embedded in *Access to Excellence* will continue to be the cornerstone of CSU initiatives."[19] In addition to the CSU Strategic Plan, the four fundamental properties of "quality," "access," "completion," and "affordability" will be foregrounded into the decision-making process.

3.2.2 Future Student Demographics: California and the United States

While the question of enrollment growth will be covered in the next section, any consideration of new programs and increased enrollment must also acknowledge the changing nature of the college student in terms of race, ethnicity, college preparedness, technological prowess, and enthusiasm for specific programs, among many other factors. The CSU repository of statistical reports and the College Boards will be an invaluable resource here as well as information from the Western Interstate Commission for Higher Education: their projection tables of high school graduates should be consulted when examining demographic trends.[20]

The Graduation Rate Initiative Committee, and its access to the CSU Dashboard on Student Success, will be a valuable asset to the strategic planning process. There is a commitment to double the representation of under-represented minorities on campus as well as to achieve representation of exceptionally qualified women at no less than 30%, beginning with the class of 2019.[21] Specific strategies for attaining these objectives are identified in the subsequent Section on strategic enrollment management.

4. Strategic Enrollment Management

Setting enrollment targets is not unlike setting a ship's destination. The course may not always be direct, but each decision on the vessel should be made with the goal of reaching that destination in mind. To quote higher education consultants, Noel-Levitz, "Strategic enrollment management is more than a long-term recruitment or retention plan. It is a data-informed process that aligns an institution's fiscal, academic, co-curricular, and enrollment resources with its changing environment to accomplish the institution's mission and ensure the institution's long-term enrollment success and fiscal health."[22] No master planning endeavor in an institution of higher education will be successful unless it is accompanied by a careful and calibrated consideration of enrollment strategies.

A series of assumptions, based on those articulated in section two of this document, have direct bearing on the control of measured growth:

1. Current Enrollment is 1055 in 2014/15
2. Cal Maritime will grow to 2200 FTES by 2032
3. Admissions will be held steady for three years until 2017
4. Enrollment will rise in next three years through retention efforts.
5. Admissions will begin increasing into existing programs
6. Sometime after 2018, Admissions will increased with the implementation of new programs

A sample growth chart [Figure 4.1] and table suggest a *very* basic extrapolation to 2200 FTES over time – this is only one possible scenario. More exact targets will be calibrated for the Five-year phase plans and annual plans.

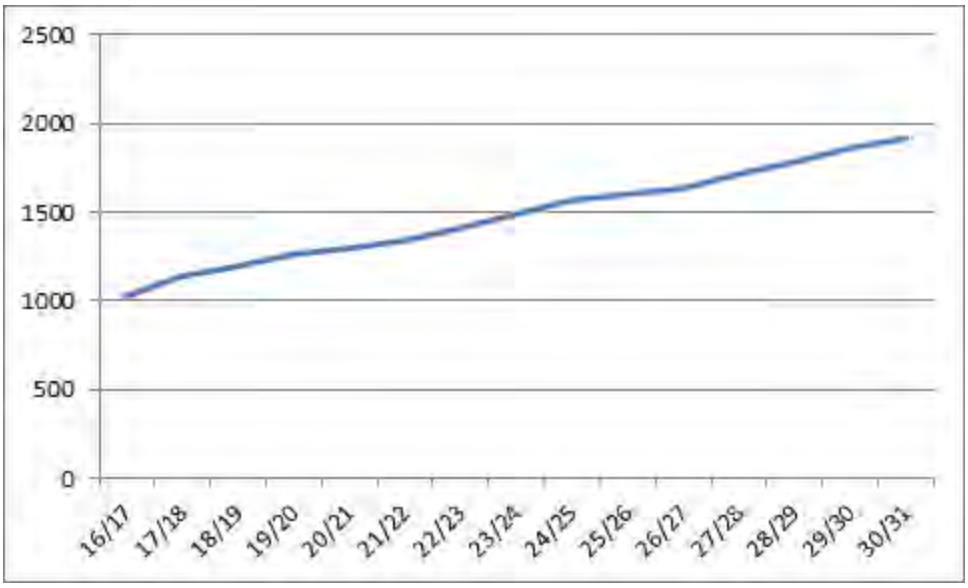


Figure 4.1

				Projected Enrollments													
							Academic Year										
		15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seniors			202	270	270	288	306	306	324	342	360	378	378	396	414	432	468
Juniors		225	280	300	320	340	340	360	380	400	420	420	440	460	480	500	500
Sophomores		246	246	246	262	278	295	295	311	328	344	361	361	377	393	410	426
Freshmen		300	300	320	340	360	360	380	400	420	440	440	460	480	500	520	520
Total Headcount			1028	1136	1192	1266	1301	1341	1415	1490	1564	1599	1639	1713	1787	1862	1914
FTEs				108	56	74	35	40	74	75	74	35	40	74	74	75	52
2-year transfers			54 +					65+									
4-year students			300	320	340	360	360										

To accomplish these goals a standing committee of administrators and faculty, chaired by the Provost, comprise the Strategic Enrollment Management Committee which meets regularly and works closely with the Department Chairs.

4.1 SEM Committee: Roles and Responsibilities

In Fall of 2014, to complement the work of the Educational Master Planning Guide Task Force, The Strategic Enrolment Management Committee was formed. The Strategic Enrollment Management material produced by this group will guide planning well into the future, and as such, the Academic Master Plan should be at the center of enrollment planning. The SEM Committee will first develop a "skeleton" plan based on the conceptual vision from EMPG, and thereafter work collaboratively with both the Academic Master Plan and Physical Master Plan Committees.[23]

SEM will, in its enrollment planning: strive to reflect the four objectives/aspirations of the Chancellor for the CSU system: quality, access, completion and affordability; take into account changes and new programming opportunities in maritime and related industries; and acknowledge that as an institution we must make choices that will shape and define our organizational identity.

In planning for strategic enrollment growth, the following general objectives will be considered, and these are more specifically articulated in the following subsection.

- Increase the percentage of females in the student body
- Increase diversity among faculty, staff and students
- Attract international students to our academic programs
- Develop summer programming for international Master's students
- Improve and streamline the articulation process for transfer students, including veterans
- Manage enrollment collaboratively across departments
- Plan strategically for growth of full-time tenure track and staff positions as well as facilities
- Develop enrollment processes based on ease of use for students and ease of process management for faculty and staff, integrating information systems, software, and database management tools to optimize future processes, ongoing management, and assessment of effectiveness

In developing plans that have these characteristics and effects, the SEM Committee will consider creative solutions and initiatives, while casting a wide net across the CSU to discover best practices, best processes, and best tools that hold the greatest promise for Cal Maritime for a period of controlled growth.

At the beginning of each fall, the SEM Committee will review progress and make revisions to this charge as necessary.

5. Guidelines for Implementation of New Academic Programming

Curricular reform and the development of new academic programs depend upon careful and thoughtful deliberation with the input of many constituencies and stakeholders. Different types of academic programming require different approval processes, both internally and externally. The following sections describe and prescribe: 1) the kinds of academic programs under consideration and 2) the processes and policies governing the development of these programs from inception to implementation. Of particular note is the creation of a new advisory body, the Curricular Development Advisory Committee (See Section 5.2 below). Note as well that in the Section 6, all new and revised combinations of academic coursework are called "programs" even though there are many types of program. It is beyond the purview of this Educational Master Planning Guide to determine the exact type of any program to be developed (and programs can evolve from one type to another). Different types of programs also have varying enrollment ramifications (minors and certificates will have a different impact than new undergraduate and graduate degree-granting programs) The following section describes the various types of programs Cal Maritime may choose to embrace in the future.

5.1 Academic Programs: Terms and Defining Characteristics

An academic program is a combination of courses and related activities organized for the achievement of specific learning outcomes. This includes programming at the undergraduate, graduate, and professional levels, and consists of degrees, majors, minors, certificates, concentrations, and specializations. An academic program is defined as any combination of courses and/or requirements leading to a degree or certificate, or to a major, co-major, minor or academic track and/or concentration. These terms and their commonly agreed-upon definitions have been culled from many sources, including the Western Association of Schools and Colleges' "Glossary of Terms," and Temple University's policies on academic programs.

Degree program

An academic degree is a position and title within a college or university that is usually awarded in recognition of the recipient having either satisfactorily completed a prescribed course of study or having conducted a scholarly endeavor deemed worthy of his or her admission to the degree. The most common degrees awarded today are Bachelor's, Master's, and doctoral degrees.[24]

Degrees, B.A., B.S.

Bachelor's or baccalaureate degrees. An undergraduate degree normally represents about four years (typically at least 120 semester or 180 quarter units) of full-time college study or its equivalent in depth and quality of learning. The B.S. usually involves a higher proportion of science and mathematics courses, whereas the B.A. has a more liberal arts orientation, although these distinctions are not always present.[25]

Degrees, M.A., M.S.
Master's degrees. A first graduate degree normally represents at least one year of post-baccalaureate study (typically at least 30 semester or 45 quarter units) or its equivalent in depth and quality. The distinctions between M.A. and M.S. are similar to those between B.A. and B.S. Some M.A. and M.S. degrees may be continuations at a higher level of undergraduate work. Others emphasize research that leads to a thesis and prepares the student for doctoral work.[26]

Major
A cohesive combination of courses including introductory, intermediate, and advanced coursework that designates a student's primary area of undergraduate study. Majors can be established or restructured to include required or optional tracks/concentrations.

Minor
A designated sequence or courses in a discipline or area of undergraduate study. Like the major, it is expected to have coherence and increasing sophistication. A minor is typically 18-24 credit hours (roughly half of the major) although there is no system-wide unit rule. The minor is independent of the student's major.

Concentration (within a major)
A coordinated grouping of courses, typically one-third of a major, representing a sub-specialization or emphasis within a major field available for the students majoring in that discipline. Majors with track/concentrations are often designated on University transcripts when the degree is awarded.

Dual Degree
A program which involves a student working for two different degrees in parallel, either at the same institution or at different institutions, completing them in less time than it would take to earn them separately. The two degrees might be in the same subject area or in two different subjects.[27]

Certificate of Specialized Study
An academic program in which the student completes a prescribed course of study, typically 12-17 credits. Like a minor, it is offered to students outside of the major. It may also be offered to non-degree seeking students. This may be at the undergraduate, graduate, or professional level. There are two types of Certification. One type of certification refers to a defined group of courses or an academic program leading to certification by an established external agency. The second type is an internal certification created and developed exclusively by Cal maritime for the purposes of denoting a specialized area of study.

Certificate of Advanced Study
An academic program in which the student completes a prescribed course of study, typically 12 or more credit hours. Certificates of advanced study are offered at the post-graduate or professional level to non-degree seeking students. Currently, these Certificates are offered through Extended Learning.

Note: there are other programs, such as endorsements, customized classes, and licensure courses, which are offered, and which will continue to be offered, through the Department of Extended Learning. Please see Section 7.2 for more information.

5.2 Policy and Procedures

The CSU, through its Academic Program Planning (APP) office, has a very specific and detailed policy and process for the development and implementation of academic programming.[28] When relevant, this process will be followed [See Appendices I, J, and K]. The very first step in the development of any new academic program, however, requires initial internal campus approval.

Ideas for new academic programs come from many sources – the outcome of student or community requests, college strategic goals, advances in a discipline, etc. This Educational Master Planning Guide document and our previous academic master planning documents have already identified many such programs.

Some new programs only require internal approval: the creation of new minors, concentrations, or certificates. [See flow charts in Section 5.4]. Others require more substantial input and approval from the CSU or accrediting bodies.

The proposal for any new degree, major, or certificate should be developed in a **Concept Paper.** This concept paper should not exceed five pages and should succinctly include the following:

i. A description of the academic program
ii. How this program is consistent with University mission
iii. How the program is consistent with strength of department/school
iv. Capability of department school to deliver program with quality
v. Sustainability of program
vi. Statement on enrollment goals, resource requirements
vii. Explanation of how program has undergone six-step decision making process.

This concept paper is then run through a series of approval processes which differ depending upon the type of academic program. [See 5.4.2].

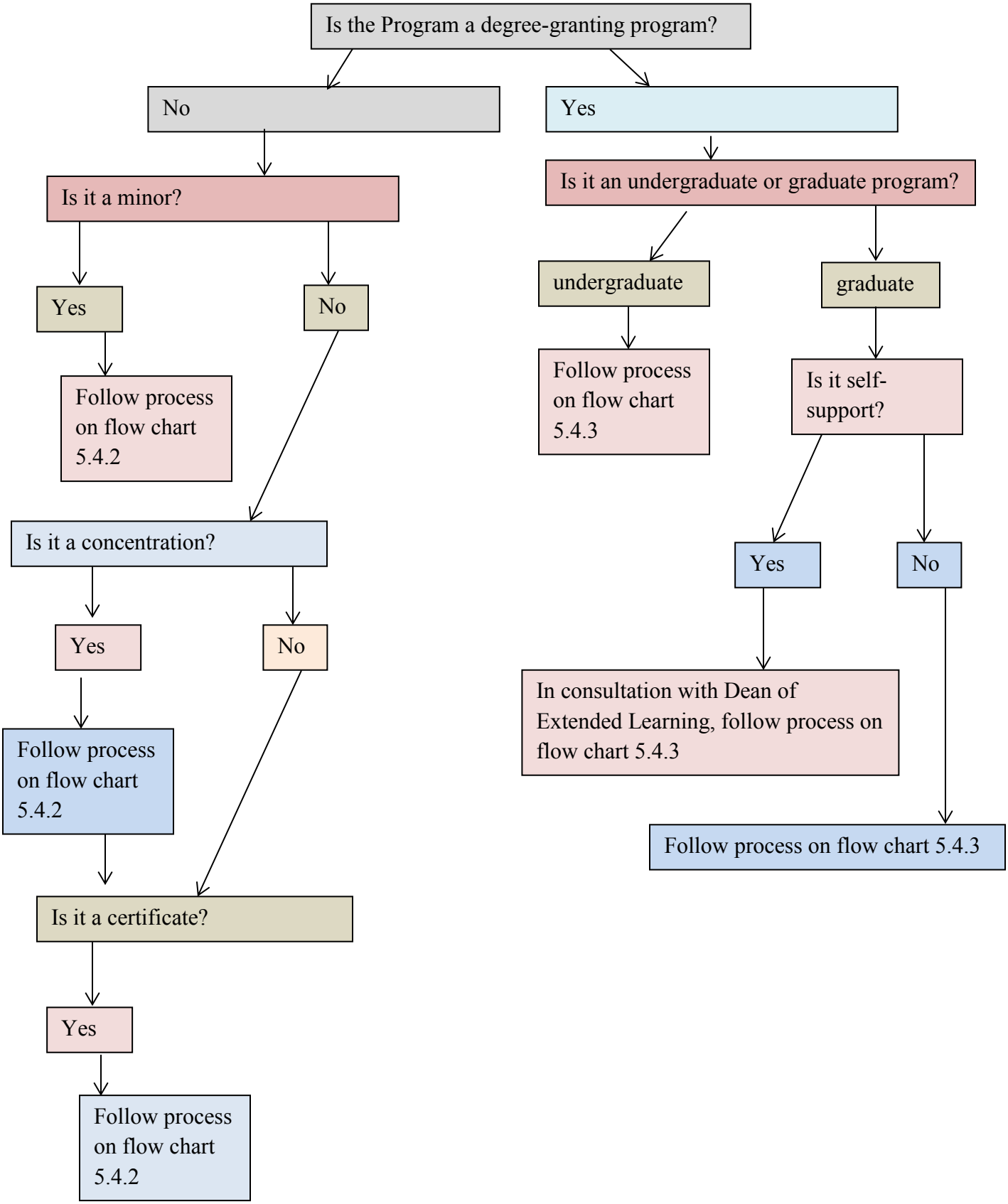
The Curriculum Development Advisory Committee (CDAC). The Curriculum Development Advisory Committee shall be made up of invested constituencies and will offer advice and identify potential weaknesses in an academic proposal prior to its submission to the Curriculum Committee. The CDAC shall be comprised of:

Academic Dean
Accreditation Liaison Officer
Director of Financial Aid
Registrar
Member of Strategic Enrollment Management Committee
Academic Senate Chair
Dean of Extended Learning [if program is to be run through EL]

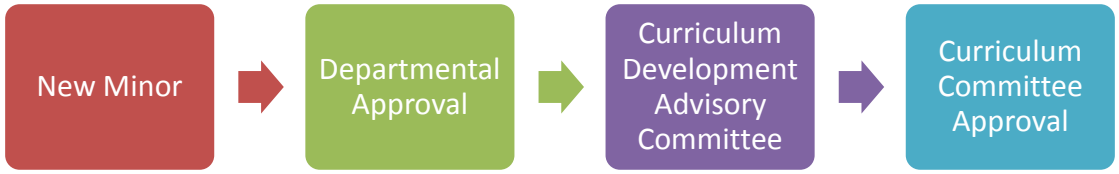
As its name suggests, The CDAC operates as a purely advisory group: its objective is to review new academic program to ensure compliance with accrediting bodies, with financial aid rules and regulations, and to ensure alignment with the institution's enrollment strategies.

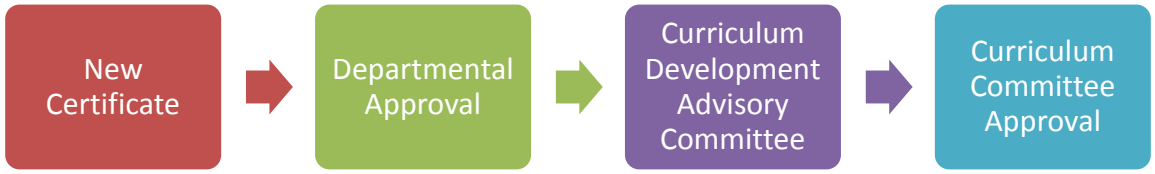
5.4 Flow Charts and Proposal Processes

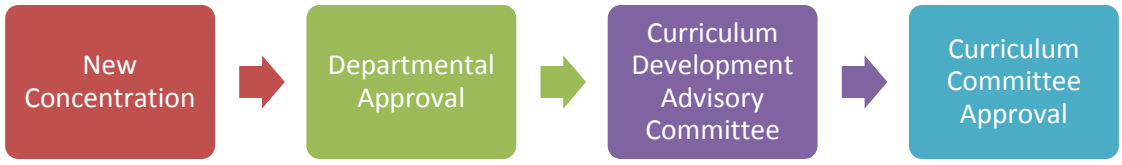
5.4.1Flow Chart For all New Academic Programs



5.4.2
New Program Flow Charts for Internal Approval Only (No CSU Approval Necessary)

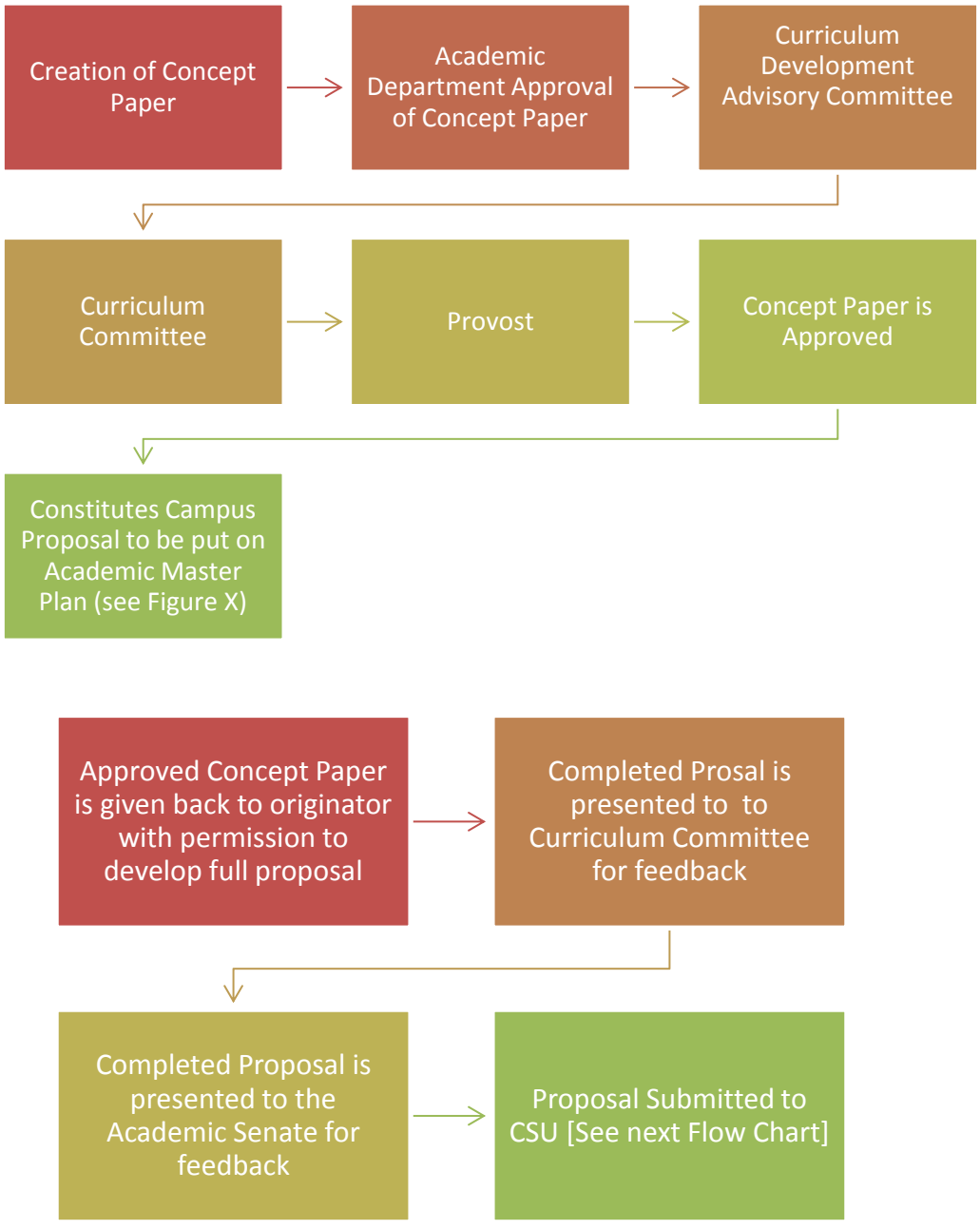






5.4.3 New Academic Programs Requiring Internal and External Approval

For new, undergraduate degree-granting program



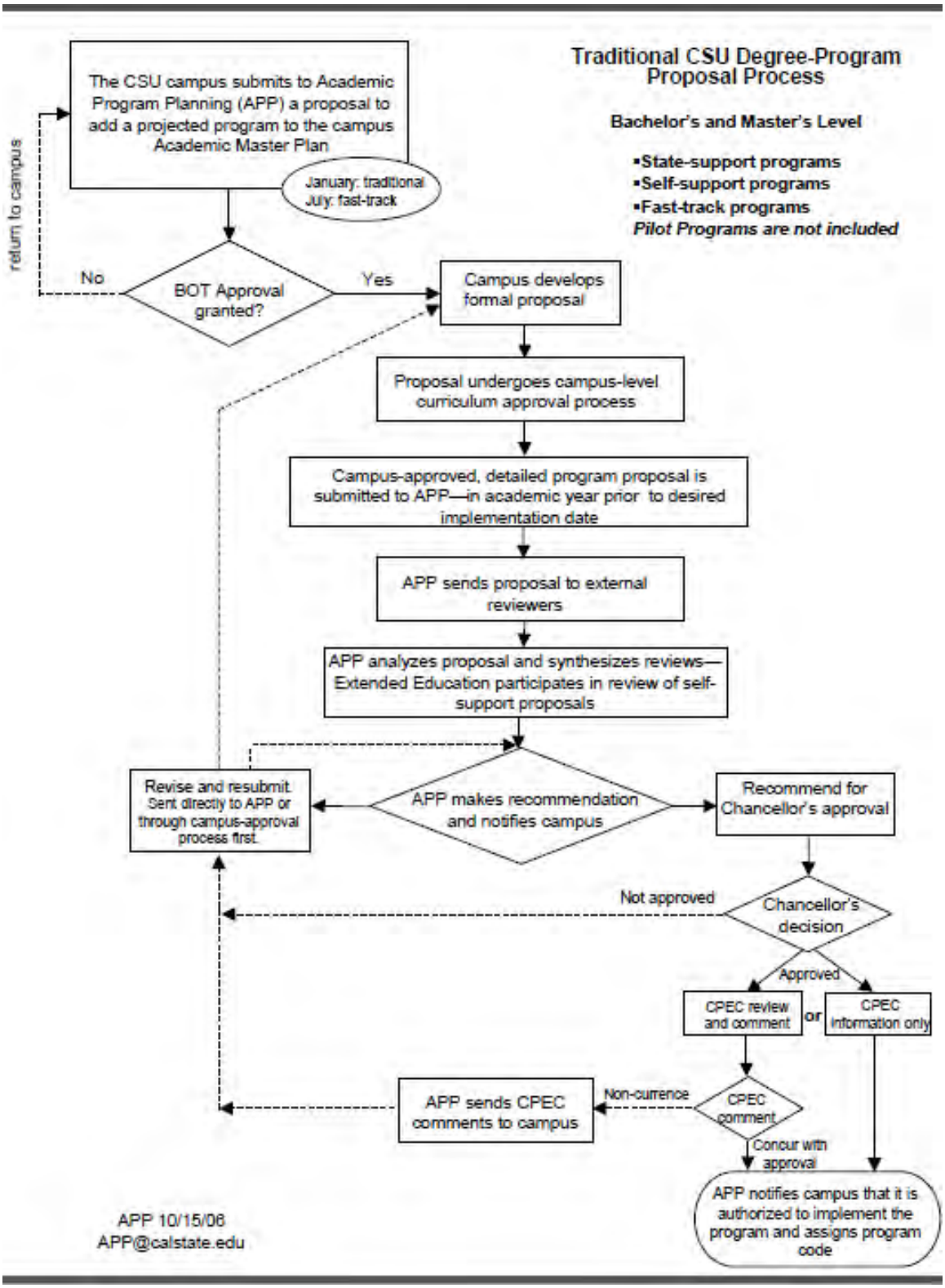


Figure 5.4.4 CSU Flow Chart for new degree-granting programs

6. New and Existing Academic Programs and Research Centers

As noted previously in Sections 1 and 2, in January 2013 Cal Maritime held a series of "Futures Conferences" designed to elicit ideas and feedback from faculty and staff on their vision for the future of the Academy. The most consistent response to emerge was the wish for the Academy to grow into a recognized and respected Maritime University. In order to achieve this vision, the Academy must strengthen its existing programs, develop appropriate new academic programs, and facilitate the creation of specialized research centers. Toward this end, the Academic Master Plan Road Map was produced, based on materials from the Futures Conferences, the External Environmental Scan, input from the Dean and Chairs Council and the Provost Council. Section 6.1 outlines issues with existing academic programs. Section 6.2 addresses the need to offer new programs, and presents options for the creation of these programs. Section 6.3 discusses mechanisms by which current intellectual resources can be developed into more refined and sophisticated research centers. Note as well that Appendix Q identifies a series of goals designed to maintain and strengthen current academic programs as these will inevitably evolve in the future.

6.1 Existing Academic Programs

The Strategic Enrollment Management committee [SEM] has determined that one avenue of growth is through existing programs, and this should be addressed immediately in the first Five-Year Phase Plan. More specific objectives and outcomes for these goals are articulated in Appendix Q. In brief, the EMPG recommends that all subsequent planning in relation to current academic programs consider the following.

- The management of enrollment growth in existing programs should be closely monitored.
    - This is accomplished by expanding student intake in existing programs according to SEM targets; determining student attrition rates in individual programs as well as reasons for attrition; reduce attrition in all programs; expanding the faculty in existing programs in line with growth targets; and considering the expansion of tracks, concentrations, and minors within existing programs as both permanent developments and also as transitional means to new degree-granting programs.
- Existing academic programs should effectively serve students and their professions, and remain relevant and up-to-date with new knowledge and emerging technologies.
    - This is accomplished by requiring all departments to initiate or revise an internal assessment program; taking advantage of departmental reviews already required through the CSU system as a tool to help academic departments determine the most efficient numbers of students their programs can accept; and continuing to conduct program reviews for all programs to assure quality, relevance, and rigor.

- Graduates should achieve high levels of proficiency in the core competencies of written and oral communication, quantitative skills, critical thinking, information literacy, and appreciation of diversity.

    - This is accomplished by reviewing existing programs to evaluate how they teach and encourage the development of these core competencies; reviewing existing CSUM human and facilities assets and capabilities to support student success; integrating and expanding the core competencies of written and oral communication, quantitative skills, critical thinking, information literacy, and appreciation of diversity across the curriculum.

- General Education courses should be developed such that ensure all graduates possess the cultural and aesthetic, social and political, and scientific and technical knowledge expected of educated persons.

    - This is accomplished by reviewing existing curriculum to evaluate how well it teaches cultural, aesthetic, social, political, scientific and technical knowledge expected of educated persons; exploring the possibility of adding Diversity and Ethnic Studies courses to the GE curriculum; and exploring options to integrate and expand the course offerings or curriculum development that reflect this goal.

- The potential of offering academic minors to students beyond their major course of study should be explored.

    - This is accomplished by reviewing existing minors and determine their viability; designing new minor programs that would be perceived as useful to existing majors and attract student interest; and conducting needs assessments to ensure that any additional facilities, equipment, and library resources are identified and provided when developing new academic minors.

- The development of new elective courses that provide students additional fields of academic discovery to complement existing coursework and provide faculty increased opportunities for research and scholarship should be implemented.

    - This is accomplished by determining student and faculty interest for electives within major programs and within general academic areas such as the sciences and humanities; developing a clear list of needs and concerns related to the creation this program; designing and implement courses that show promise for student and faculty enrichment and attracting appropriate enrollments; conducting a needs assessments to ensure that any additional facilities, equipment, library resources are identified and provided when developing new elective courses; and developing metrics and measures to evaluate the effectiveness of these courses.

- The possibility of creating certificate programs that will provide graduates with evidence of specialized training, knowledge, and expertise in addition to their baccalaureate should

be explored

  - This is accomplished by reviewing existing certificate programs from other institutions and determine their value and viability to Cal Maritime; designing certificate programs that would be perceived as valuable to existing majors and interest students; conducting needs assessments to ensure that any additional faculty, facilities, equipment, information technology, and library resources are identified and provided when developing new certificate programs; developing metrics and measures to evaluate the effectiveness of any new certificate program including its appeal to current and prospective students, employers, and industry; and determining the most appropriate funding method: state support or self-support.

- Determine what courses would be suitable to offer during Summer Session; commencing in 2016, but also for long term strategic planning

  - This is accomplished by identifying which courses currently are "bottlenecks" to timely graduation completion, and determine if they can be offered during summer session; identifying which general education courses could be taught during summer session to ease time toward graduation; identifying courses of possible interest for non-Cal Maritime students in the region who may want to take advantage of our offerings; identifying which summer courses may benefit from a hybrid or completely online platform; and developing a policy for selection/hiring of faculty to teach summer courses.

6.2 New Academic Programs

To achieve the vision of developing a recognized and respected Maritime University, the institution must not only strengthen its existing programs, but develop new ones as well. As noted throughout this document, there are specific goals and objectives identified by the Task Force and located in Appendix Q. Specifically for this section, the New Academic Program Goals [NAP], are presented with suggested responsible agents, objectives, and outcomes.

It is beyond the purview of the Educational Master Planning Guide Task Force to implement a timeline and rollout order for this programs; this will occur in careful collaboration with the Academic Senate, the Strategic Enrollment Management Committee, and the Physical Master Plan Committee. Given the enrollment strategies articulated in Section 2 of this Educational Master Planning Guide, these new academic programs will probably not be implemented before the conclusion of the first five-year phase, but strategic planning must commence well before that. It is important to note that the implementation time frame for a new, degree-granting program is upwards of 18 months. Careful planning is of paramount importance for the successful implementation of each new program.

In order for the Academy to explore all possible options, the term "*program*" as used herein refers to all potential programs, including baccalaureate and masters degrees, minors, and certificate or credential programs. All new programs will be subjected to the internal and external processes articulated in section 5, with emphasis on the six-step decision making process.

What follows below is a list of potential programs which have been identified by various stakeholders and in various academic planning documents as viable because of the institution's mission and faculty competencies.

- Proposed Program 1 Physical Oceanography
  - *Responsible Agent:* Chair of Science & Math Department
- Proposed Program 2 Maritime Safety and Security
  - *Responsible Agent:* Chair of Marine Transportation
- Proposed Program 3 Maritime Management
  - *Responsible Agents:* Chairs of Depts. of Marine Transportation and MPM
- Proposed Program 4 Electronics and Computer Technology
  - *Responsible Agent:* Chair of Engineering Technology
- Proposed Program 5 Offshore Infrastructure
  - *Responsible Agent:* Chair of Mechanical Engineering
- Proposed Program 6 Renewable Energy
  - *Responsible Agent:* Chair of Mechanical Engineering
- Proposed Program 7 Coastal and Environmental Science
  - *Responsible Agent:* Chair of Science & Math Department
- Proposed Program 8 GIS/Cartography/Remote Sensing
  - *Responsible Agent:* Chair of Science & Math Department
- Proposed Program 9 Maritime Culture
  - *Responsible Agent:* Chair of Culture and Communication
- Proposed Program 10 Offshore Aquaculture
  - *Responsible Agent:* Chair of Science & Math Department

Additionally, the Task Force recommends that future Annual Plans and Five-Year Phase Plans explore the feasibility of developing any of the programs recommended by *Penson Associates* in their 2011 Environmental Scan and Needs Analysis for the Academy[29]

Finally, the Task Force recommends that faculty explore, research, and analyze any academic programs of interest to be added to the current offerings at Cal Maritime.

Regardless of the origin of the new academic program, it is understood that any proposal will:

- Assess the professional and intellectual environment, employment market, administrative and facilities requirements, including those involving accreditation, for the new program to increase educational and professional opportunities for graduating students.

- Develop a clear list of needs and concerns related to the creation of any of these programs.

- Conduct a needs assessment to ensure that required resources are identified and provided for, including facilities, equipment, technology, academic training, and library resources.

- Identify courses currently being taught where content could be revised to accommodate the requirements.

- Develop additional courses that could both fulfill the requirements of the major and provide additional elective courses.

- Consider the potential of collaborating with other academic institutions in offering coursework or providing training facilities core to this new program and include ways in which our simulation facilities and equipment could be used for this purpose.

- Consider the potential of offering any of these programs partially or completely in an online environment.

- Develop metrics and measures to evaluate the effectiveness of the program.

6.3 Research Centers (RC)

The California Maritime Academy considers the development of world-class research centers as essential to its ability to grow its scientific capacity to create new knowledge and contribute information and expertise to the academic and industrial research communities. The generation of new knowledge and expertise will also strengthen the educational experience of Cal Maritime's cadets and faculty while contributing to researchers around the world. Cal Maritime aspires to be a recognized research leader and information provider in the fields of marine transportation and management, global logistics, international business, global maritime affairs, engineering, and oceanography. Currently, there are three centers under consideration: the Center for Excellence in Global Logistics, the Training Ship Golden Bear, and the Marine Transportation Research Center. The development of these research centers will not only advance the institution's identity as a premier Maritime University, but will also align with the CSU system's ambitions to promote and develop research opportunities for graduate and undergraduate students.

Center for Excellence in Global Logistics

The Center for Excellence in Global Logistics (CEGL) will be an international center of excellence for research and education in logistics. CEGL will actively engage with industry, government, academia, and non-governmental organizations to develop and disseminate information and knowledge on the evolving logistics industry.

The Training Ship Golden Bear

The Training Ship Golden Bear is the jewel in of Cal Maritime, and its role in academic planning is significant. Future plans should see the improvement of the ability of the TSGB to act as a technologically advanced maritime research vessel. Under the auspices of the Director of the TSGB facilities operation, the Academy should determine the viability and sustainability of expanding the role and capacity of the TSGB to serve as a technologically advanced maritime research vessel and begin the process of expanding the role and capacity of the TSGB to serve as a maritime research vessel including a timeline for implementation.

Marine Transportation Research Center

The Task Force calls for the establishment of a Marine Transportation Research Center (MTRC) located in the Simulation Center building in order to conduct more maritime related research, both academic and professional, by utilizing Cal Maritime's state-of-the-art full-mission and part-task simulation facilities. The responsible agent would be the Director of Simulation, with the objective of obtaining more research grants from government and private entities by submitting research proposals that require the use of simulation to solve maritime problems; encouraging more Cal Maritime faculty to utilize the simulation facilities to conduct academic research that takes advantage both of the simulation equipment and their prior professional experience and specialties; ensuring that all simulation equipment is as up-to-date as possible to allow meaningful maritime research to continue at Cal Maritime; and finding innovative ways to utilize the capabilities of all simulators on campus, including those in the Tech Center and on the Training Ship.

This will have the expected outcomes of an increased use of all simulators in the Simulation Center in conducting significant maritime research that will become a valuable source of outside funding for the campus. It will also increase faculty involvement in maritime research that will serve to enhance Cal Maritime's reputation as one of the premier maritime research facilities both nationally and internationally. Finally, as a result of the maritime research conducted at the MTRC, Cal Maritime faculty will be able to ensure that the undergraduate instruction at CMA maintains the highest quality standards and relevance to better serve the demands of a rapidly changing maritime industry.

7. Organizational Structures: School Models and Extended Learning

7.1 The Multi-School Model

As Cal Maritime continues to grow physically and academically, we also begin to evolve as an educational institution and to embrace the reality of becoming a maritime university. This evolution will eventually lead Cal Maritime to a point when the current administrative structure of academic departments and degree-granting programs no longer adequately serve the expanded interests and needs of its population. Currently, academic programs are organized into one school and five departments. The school (ABS School of Maritime Policy and Management) houses Global Studies and Maritime Affairs, International Business & Logistics and Culture & Communication. Stand-alone departments include Science and Mathematics and the degree-granting departments of Engineering Technology, Marine Transportation, and Mechanical Engineering. In anticipation of continued growth and the development of desired academic initiatives identified previously in this document, attention will be given to various options for revising the current organizational structure of governance for these programs. Among these options is the multi-school model.

The multi-school model offers the opportunity to develop an organizational scheme in which academic majors and programs are clustered by disciplines into new schools, each of which will serve the evolving interdisciplinary needs of students. Faculty would be expected to conceive an institutional structure which best suits the evolving needs of its programs as well as the university at large. While the ABS School of Maritime Policy and Management has already been formed to include a director position, the administrative structure of all schools has yet to be determined and could be led by directors, associate deans or deans.

At stake in any document which intends to programmatically lay out future designs and developments, there are many fundamental issues which may not be foreseen, and many that are foreseen, but are not addressed because the processes which would address them have not yet been implemented. Any reorganization of academic departments and structures, however, shall be made with the broadest participation of the entire academic community, including faculty, staff, and administration.

Proposals for the formation of or changes to an academic unit, including such units as a Department, School, Program or College shall be developed with faculty and administrators in concert with the Academic Senate and shall be compliant with the Collective Bargaining Agreement, state and federal laws and regulations, CSU Chancellor's Office Executive Orders and policies, etc.

Considerations would also include curricular issues, academic impact (including impact to current STCW, WASC, ABET and any other third-party accreditation) approvals or certifications. In addition, any re-organization or proposal of a new program shall include a fiscal and budgetary impact proposal, and consider as well impact to: student affairs and student life, Academic Senate membership, and standing committee compositions. The following School Goal and its objectives and outcomes are defined in Appendix Q: SC1-1.

7.2 Extended Learning (EL)

Cal Maritime Extended Learning offers professional development and training to build and maintain skills for industry professionals in all phases of their careers. Programs are designed to combine industry knowledge and hands-on training with the latest equipment to meet license upgrades, recertification, and industry requirements.

All instructors are highly qualified professionals who bring years of real world experience to the classroom environment. Cal Maritime Extended Learning also works with respected industry training partners to develop and deliver customized training programs. The broadly conceived goals to be undertaken by Extended Learning in the Annual Plans and in the Five-Year Phase Plans are as follows:

- Increase the number of course offerings through Extended Learning.
- Provide online degree and certificate programs where the demand is sufficient to make them financially attractive.

More specific goals, objectives, and outcomes for Extended Learning, and how this office shall contribute to the Five-Year Phase Plans, are located in Appendix Q.

8. Academic Support Services (AS)

8.1 Library Services

The Cal Maritime Library contributes to student success, retention, and graduation by offering quality Information Literacy and Critical Thinking instruction, digital and physical collections to support the curriculum, and a physical environment to enhance study, learning, and collaboration. The Library develops Cal Maritime graduates who are savvy information users and lifelong learners. The Library also provides Cal Maritime faculty full support for their teaching and scholarship needs.

To accomplish these objectives, our Library services must continue to address a rapidly evolving information ecology, which includes ubiquitous information and communication channels, online learning, changing human-computer interactions, and differing user expectations. Issues such as access to information across emerging and existing technology platforms, preservation of content and effective use of information remain paramount concerns to the Library. The model for academic Library support in the future no longer focuses on helping users address a scarcity of information, but rather to help users navigate and manage an overabundance of information.

In addition to providing access to digital resources, the Library's physical facility should the academic and intellectual center of the campus. To accomplish this, advocacy for a new Library building should continue. A new Library would serve as the home for high-quality academic and maritime-related collections, quiet study spaces, collaboration spaces, media viewing and creation rooms, conference rooms and a campus history/alumni room. This new facility will be an intellectual crossroads for the campus, in which other academic support units, such as tutoring services, a writing center, disability services, and academic computing could reside. Bringing these services together will offer greater possibilities to collaborate across departments and create innovative services.

8.2. Academic Technology Services

The Academic Technology supports the mission of The California Maritime Academy by helping instructors maximize the use of technology to achieve their teaching goals and improve student success. Drawing on expertise in technology and pedagogy, Academic Technology staff assists instructors with projects, share information across the Academy on effective practices, and examine the effect of technology on teaching and learning.

Academic Technology contributes to the Academy's success by:

- supporting the use of Learning Management Systems (LMSs), such as Moodle or

Blackboard, to enhance student learning;
- developing methods to increase student engagement with course materials;
- supporting active learning strategies in an online environment;
- fostering communication and collaboration;
- streamlining course administration; and,
- working closely with the School of Extended Learning to support online degree programs.

As part of the California State University System, Academic Technology leverages knowledge, expertise, and innovative practices from the CSU community to improve learning outcomes and faculty success at Cal Maritime.

Specific goals in the area include the creationg of professional development opportunities for faculty and staff to learn and explore the possibilities of offering courses via online learning and the provision of online courses of high quality (similar or higher quality than current classroom instruction) that have the benefit of reducing the pressure on classroom spaces and increasing access to instruction.

8.3 The Simulation Center

The Department of Simulation supports the mission of The California Maritime Academy primarily by providing reliable, state-of-the-art simulation capability for enhanced education and training in all licensed undergraduate programs. Simulations also supports SPEL in its mission to provide the maritime industry with primary and refresher training for maritime professionals, assessment of new industry hires, and periodic recertification of existing employees. Finally, the Department of Simulation supports maritime research, both academic and professional, by taking advantage of the most advanced and numerous marine simulators of any facility on the West Coast of the U.S.

Simulation Center facilities at Cal Maritime include all simulators located in or on:

- Simulation Center Building (2008)
- Training Ship *Golden Bear* (2011)
- Engineering Technology Building

Located in the Simulation Center are three full-mission bridge simulators, eight part-task (Radar/ARPA/ECDIS) simulators, Global Maritime Distress and Safety System (GMDSS) simulator, Liquid Cargo Handling (LCHS) simulator, and a Crisis Management simulator. All simulators in the Sim Center are manufactured by the Transas Company. On the TSGB there is one Transas full-mission bridge simulator and ten part-task simulators in the Navigation Laboratory (2011). There is also a new (2013) Kongsberg diesel simulator located in the lower deck level. There is also an older steam simulator and a modern Kongsberg diesel simulator located ashore in the Engineering Technology Center. A new L3 diesel simulator is to be donated by the Chevron Corporation and installed later in 2014 in the Tech Center.

The effectiveness of the simulation facilities at Cal Maritime is due in large part to the dedication

and abilities of the Simulations staff. Constant repair and maintenance of this highly complex equipment is necessary in order for the department to fulfill its daily function. In addition, frequent updates of hardware and software are required to keep pace with this rapidly changing technology. Complete equipment replacement will be required eventually and should be budgeted for well in advance of its need.

It is expected that the central goals for the simulation are to support the deck and engine licensed programs with the simulation capacity needed in order to enhance Cal Maritime's well-deserved reputation as the premier U.S. maritime academy for practical training programs and support SPEL in its delivery of quality maritime professional training, assessment and recertification courses.

9. Implementation Mechanisms

Adoption of Project Management Software

During the Futures Conference II, it was decided that for strategic planning purposes a common technological platform across all divisions and departments would maximize efficiency. In the fall of 2014, an Ad-Hoc Committee for the selection of Project Management Software was created. This committee included members from the Educational Master Planning Guide Task Force, Administration and Finance, Student Affairs, Information Technology, Educational Technology, and Information Fluency. The purpose of this committee was to employ the six-step decision making process in order to recommend a software package that could be used for collaboration between divisions to accomplish goals and objectives in the Annual Plans and Five-Year Phases. [Step One: Assess the Environment]

In October 2014, the committee surveyed the campus committee on project management software currently used, the number of projects managed per year, the number of recurring projects per year (for example, "Orientation Week), and the important of different software management features (i.e, collaboration, integration with email, calendering, budget integration, data exportation, etc.). [Step Two: Analyze the Task]

The results of the survey were analyzed, and criteria were developed for the selection of a new project management software system. These included pricing of systems, ease of use, open source vs. closed source, hosted or non-hosted, customizability, etc. [Step Three Develop Options]

To date, the committee is on Step Four [Compare Options and Decide], with the realization that Steps Five and Six will be relatively quick to process. It is hoped that a recommendation will be forwarded by June 1st 2015.

10. Conclusion

It is the sincere hope of the Task Force that this Educational Master Planning Guide should prove to be useful in guiding the institution forward in its strategic planning processes for many years to come. In its ambition to describe the future characteristics of university academic programming through an analysis of policies, organizations, and human resources, this document should lay the groundwork for the first annual plan and the first five-year phase plan.

As the university begins to reformulate it's budgetary processes and calendars, as it plans carefully for growth in student body and the subsequent expansion of physical and human resources, as it continues to ply attention to cutting edge technologies and as it continues to be attuned to the trends that shape both the maritime world and the sphere of higher education, the vision, planning, and procedural content of this document will serve as a guide star for all future endeavors.

Ultimately, the resultant academic master plan shall be filed with the Chancellor's Office, will be archived for WASC documentation, and be available for wide dissemination across the campus community.

REFERENCES

[1] http://www.csum.edu/web/about/mission
[2] Cal Maritime Futures Conference I Results, pgs 4 – 5.
[3] Get source from Futures II: Outcomes
[4] *2009 Academic Master Plan*, p 3;Futures Conference II: Outcomes
[5] Futures Conference II: Outcomes
[6] Naisbit, John. *Megatrends: Ten New Directions Transforming Our Lives.* 1988.
[7] *California Maritime Academy Vision Statement*
[8] Newman, John Henry. "Knowledge Viewed in Relation to Professional Skill." http://www.newmanreader.org/works/idea/discourse7.html
[9] http://www.wascsenior.org/resources/handbook-accreditation-2013/part-ii-core-commitments-and-standards-accreditation
[10] *The 2009 California Maritime Academy Master Plan* p. 5
[11] *The 2011 Environmental Scan/Needs Analysis Report,* II, p. 4
[12] *California Maritime Academy Vision Statement*
[13] *California Maritime Academy Vision Statement*
[14] http://www.americanmaritime.org/merchant/
[15] *California Maritime Academy Vision Statement*
[16] To plan and prepare for a future which is continuously in flux demands a re-assessment of the external environment on a cyclical basis. The following table suggests just a very few of the general areas within the maritime arena that should be assessed for opportunities and challenges.

Shipping	**Ports**	**Energy and Environment**	**Geo-Politics**
Reduced Manning	Automation	Crude oil volatility	Possible rescind of Jones Act
LNG Ships	Chronic congestion	Wind-Assist Ships	Reframing of Pacific Century
EP T4 Regulations	Safety and Security	The Green Marine Highway	Increased participation of many developing countries in the shipping industry
Insurance and Banking	Cargo Distribution Centers	Ballast Water Issues	Arctic politics
STCW Amendments	Green Port Development	Off-Shore Infrastructure	Maritime Disaster Preparedness
Regulatory measures in support of sustainable shipping	Labor Relations		Ocean Conservation/Climate Politics

[17] The following are valuable resources that could be consulted on a yearly, and five-year basis when determining the potentiality and viability of new programs. Many resources including Cal Maritime's Library Guides (http://csum.libguides.com/scan) and periodicals such as *Maritime Professional* (http://www.maritimeprofessional.com/),*Maritime Today* (http://www.maritimetoday.com/) *MarineLink.com* (http://www.marinelink.com) and the *US Maritime Resource Center* (http://usmrc.org/) should be consulted when addressing a deeper dive into maritime trends in the service of revising academic programming or looking to add new programs.

[18] http://www.calstate.edu/PA/info/mission.shtml

[19] http://www.calstate.edu/accesstoexcellence/executive-summary-2011-2013.shtml

[20] *Western Interstate Commission for Higher Education*: http://www.wiche.edu/

CALIFORNIA

Public and Nonpublic High School Graduates – 1996-97 through 2027-28

ACADEMIC YEAR	RACE/ ETHNICITY TOTAL	PUBLIC BY RACE/ETHNICITY					PUBLIC TOTAL	NONPUBLIC TOTAL	PUBLIC & NONPUBLIC TOTAL
		American Indian/ Alaska Native	Asian/Pacific Islander	Black non-Hispanic	Hispanic	White non-Hispanic			
1996-97	269,071	2,364	39,454	20,742	82,015	124,496	269,071	27,210	296,281
1997-98	282,536	2,513	42,711	21,165	87,742	128,405	282,897	28,835	311,732
1998-99	298,428	2,665	44,031	22,065	95,438	134,229	299,221	28,688	327,909
1999-00	308,905	2,655	45,499	22,536	100,637	137,578	309,866	30,596	340,462
2000-01	315,189	2,734	46,958	22,474	103,795	139,228	315,189	30,285	345,474
2001-02	324,152	3,036	48,206	23,451	109,038	140,421	325,895	31,116	357,011
2002-03	338,091	3,120	48,728	24,855	116,724	144,664	341,097	31,946	373,043
2003-04	340,069	3,040	48,770	25,267	121,418	141,574	343,480	32,905	376,385
2004-05	350,452	2,950	50,224	26,800	129,671	140,807	355,217	33,541	388,758
2005-06	343,515	2,833	52,334	25,355	124,409	138,584	343,515	34,642	378,157
2006-07	347,912	2,866	52,252	25,737	128,462	138,595	356,641	34,878	391,519
2007-08	366,503	3,071	54,019	25,911	142,491	141,011	374,561	36,136	410,697
2008-09	372,311	2,980	56,321	26,206	147,717	139,087	372,310	35,256	407,566
2009-10	384,314	3,144	57,207	27,153	161,019	135,791	385,324	36,152	421,476
2010-11	392,907	2,887	58,601	27,762	171,099	132,559	394,926	35,366	430,292
2011-12	377,612	2,896	56,773	25,391	166,503	126,050	384,080	32,682	416,762
2012-13	369,273	2,878	56,496	23,281	164,882	121,735	376,369	32,098	408,467
2013-14	355,891	2,740	54,781	21,163	161,664	115,544	362,716	30,025	392,740
2014-15	365,146	2,635	57,424	22,273	168,376	114,439	371,296	28,791	400,087
2015-16	356,082	2,579	53,705	21,036	167,338	111,425	363,734	27,279	391,014
2016-17	358,179	2,363	55,900	20,681	169,480	109,755	365,257	25,965	391,222
2017-18	360,712	2,306	58,047	19,987	173,347	107,026	367,626	24,693	392,319
2018-19	356,760	2,261	56,272	19,382	174,554	104,292	362,951	23,195	386,146
2019-20	355,374	2,215	56,296	18,775	175,863	102,224	363,000	21,601	384,600
2020-21	362,278	2,105	58,321	18,136	180,322	103,395	368,416	20,571	388,988
2021-22	363,592	2,109	58,067	17,575	183,057	102,784	370,181	23,095	393,276
2022-23	365,863	2,214	58,085	17,402	189,947	98,215	375,247	23,246	398,493
2023-24	375,470	2,350	60,521	18,601	196,680	97,319	384,475	23,473	407,948
2024-25	376,999	2,312	62,574	18,136	199,020	94,956	386,819	23,358	410,177
2025-26	369,839	2,392	62,338	18,728	192,457	93,925	376,495	22,719	399,215
2026-27	352,608	2,290	60,974	18,082	180,524	90,739	359,624	21,938	381,562
2027-28	340,879	2,261	58,571	17,571	172,430	90,046	348,375	21,237	369,613

[21] *California Maritime Academy Vision Statement*, p. 6.

[22] *The California Maritime Academy 2014 Academic Master Plan Roadmap*, p. 3

[23] Charge to Strategic Enrollment Management Committee
[24] http://www.k12academics.com/higher-education/academic-degree#.VGFHRMvwuM9]
[25] http://www.wascsenior.org/content/wasc-glossary
[26] http://www.wascsenior.org/content/wasc-glossary
[27] http://en.wikipedia.org/wiki/Double_degree
[28] http://www.calstate.edu/app/program_dev.shtml.
[29] See Appendix D for more detail, but in brief, the recommended programs are, in order of projected feasibility:

1. Logistics & Supply Chain Management
2. Occupational Health & Safety
3. Closed System/Energy Engineering
4. Hospitality
5. Construction Engineering/Civil Engineering Technology
6. Environmental Engineering
7. Homeland Security, Disaster and Crisis Management
8. MBA/EMBA Transportation/Engineering
9. Technical Writing
10. Environmental Science/Studies
11. Transportation/Port Management
12. Electrical Engineering/Power Engineering
13. Electronics Engineering Technology
14. Mechatronics/Robotics/Automation
15. Human Factors Systems & Psychology
16. Materials Joining Engineering Technology
17. GIS/ Cartography/Remote Sensing