**Coastline Community College**

**Vision 2015 Plan**

***Technology Committee***

***April 2010***

**Infrastructure Needs**

By 2015 the College shall significantly develop and improve the College’s Infrastructure by:

* Establishing & maintaining a secure, high speed data pipeline that supports College needs for data, video delivery, graphic user environments, educational social networks applications, Web 2.0, and external contract needs.
* Establishing a reliable server network solution, either internally and/or externally, that optimizes performance, 24/7 access, security and peak traffic demands.
* Providing a safe secure ubiquitous wireless access solution from ALL College sites and centers for faculty, staff, and students.
* Providing a network bandwidth solution that can support the need for high-speed multimedia applications to the desktop including effective educational applications of Web 2.0, just-in-time help, and self-help to improve critical skills.

**Communication Needs**

By 2015 the College shall establish a state-of-the art Communications infrastructure that exceeds all needs by:

* Reducing the cost of travel and meeting attendance by providing desktop conferencing solutions and technical support for regular meetings and training activities by College constituents.
* Creating smarter Web sites that offer easy navigation and access, with better media support, and more self-help options to meet public expectations in a highly mediated world.
* Establish access protocols for Cell phone and mobile access to College information services, courses and other educational resources.
* Establishing easy system access to collaborative communications software solutions, including Wikis, Skype, Facebook, You-Tube, Twitter, RSS feeds, 2nd Life, and other popular communication systems our students are using every day.

**LMS (Seaport) Directions**

By 2015 the College shall continue to develop, improve, and market the College’s Seaport Learning Management system by:

* Adding additional features and capabilities identified by instructional staff and faculty to support course, distance learning, and classroom needs.
* Adding features and flexibility to Seaport to allow use for contract education, military, and external marketing purposes, and as a revenue source.
* Marketing Seaport to educational institutions worldwide.

**Classroom Technology Needs**

By 2015 the College shall provide for effective state-of-the art classroom learning environments by:

* Equipping designated College classrooms with audio/video display technology hardware.
* Providing automated of lecture capture strategies for later viewing by students in selected courses, as approved by faculty.
* Providing selected sites with external outreach hardware to permit real-time and delayed Webcasting (Podcasting/Vodcasting) of classes, or linkage to external sites for dual class activities or connections.

**Training Needs**

By 2015 the College shall provide for an effective state-of-the art training environment by:

* Continuing to operate the Summer Technology Institute to provide professional skill building and to improve the quality of educational support and instruction that the College offers.
* Providing for new strategies for just-in-time training and training outreach to the desktop, enabling staff and faculty to access support and assistance for needed tasks and education at their local work station, at their own schedule using Camtasia, archived files, mini-lessons and other techniques.
* Providing more self-help/online training for students enabling the better use of College systems, information access, and improved course performance.
* Schedule educational Webinars (brown bag lunch activities for example) from both internal and external sources to improve College staff and faculty skills and knowledge.

**Portable Convergence Goals**

By 2015 the College shall recognize and leverage the convergence of mobile technology in the public sector and military by:

* Providing for access to courses and information from hand-helds, cell phones, iPads, and other portable devices.
* Promoting and supporting the development and effective use of educational strategies for delivering content on mobile devices.

**Serious Simulations**

By 2015 the College shall take advantage of the capabilities of both Web 2.0 and 3-0, and the growing potential of 3-d worlds and simulations, the high student participation in videogame-like activities, and the new opportunities for course support by:

* Creating a Coastline Virtual Campus in 2nd life to offer student services, student-faculty support opportunities, a virtual community meeting place for widely dispersed Coastline students, education fairs, an R&D location for new course development in a variety of disciplines.
* Developing commercially marketable 3-d and educational simulations supporting educational missions for ISD and contract education (examples- Virtual Emergency Operations Training Center, and Allied Health Care simulations, Refinery Operations, et al).

**Virtual Labs Development**

By 2015 the College shall take advantage of the ability to effectively meet identified science and other laboratory objectives through the use of Web 2 and 3 delivery and the cost savings potential of virtual environments, delivered at a distance by:

* Building selected virtual lab enhancements which can be used to extend, supplement and improve the quality of existing laboratory experiences in a variety of disciplines (language, technology, math, sciences).
* Building a number of selected laboratory simulations which can be marketed and sold externally through ISD

**Knowledge Garden**

By 2015 the College will facilitate faculty access to a repository of educational resources and media which can be selected to enhance the quality of the College’s educational offerings by:

* Building easy to use pathways to the (Educause, Merlot and similar) databases of free media materials.
* Designing component connections into Seaport which allow faculty to manage student contributions of materials within courses (drop boxes, course assignment uploads, shared presentations, wikis, PowerPoints, etc.)
* Improving and enhancing the College’s Library resource Web site by facilitating access to resource materials and support processes

**Educational Directions & Aspirations**

By 2015 the College will realize the importance of the continuing quest for excellence in education, leading to the facilitation of higher order critical thinking and skill sets by:

* Encouraging and expanding Coastline College as a “learning organization” where not only students, but faculty, staff, and administrators continue to improve their own skills and abilities.
* Continuing the quest for convenience, effectiveness, and time compressed learning opportunities for students and College constituents.
* Continuing to encourage the examination of the definitions of “teaching and learning” through innovative and creative explorations, research and development projects, new technology applications, grants activities, and individual initiative in departments, disciplines and units.

***Example XX:*** *Department Technology Recommendation*

Coastline Community College

Center for Instructional Systems Development

**Recommended Technology Priorities 2007-2012**

|  |  |  |
| --- | --- | --- |
| **High-speed data pipeline** | **System demands, failure issues, performance needs, peak periods demand** | **Social networks, video, graphics, audio, Web 2.0 demands, contracts** |
| 1. Co-located/Hosted Servers | Reliability, Bandwidth needs, 24-7 up-time, security, maintenance costs, peak periods | 24-7 expectations, world-wide operations, contracts |
| 1. Ubiquitous Wi-Fi access | Connectivity, convenience | Public expectations, mobile devices, student equipment |
| 1. High speed multimedia desktops | Performance and software issues, productivity | Web 2.0 applications, at-desk training, communications |
| 1. Desktop conferencing | High travel costs, scheduling issues, technology of cameras, software has improved | Reduced desktop costs, public awareness |
| 1. Smarter Web sites | Increased options for interactive data-bases, Web 2.0 capabilities | Public expectations, competition |
| 1. Social Networking | Develop better collaboration (faculty-student, student-student, faculty-faculty) | (wikis, blogs, Facebook, Twitter, RSS, 2nd Life) |
| 1. Continue Seaport development to meet faculty/student needs | Huge LMS cost savings, flexibility, connectivity, ease of use, user satisfaction, training ease | Perfect development platform for hand-held convergence, (Military notes) |
| 1. External Marketing of Seaport | Connects ISD products, opens new markets to, contract ed, gov. agencies, schools | Widely discussed demand- dissatisfaction with current market products, costs |
| 1. ISD development for other LMS | Need also to develop ISD content for other platforms | Some of our markets use other LMS |
| 1. Presentation hardware in the classroom | Audio/video display, computer display helps deliver quality content | Research examples, motivation, quality, organization issues |
| 1. Capture hardware in the classroom | Lecture capture | Re-usability, review for students |
| 1. External outreach hardware in the classroom | Multi-modal, Internet, video conferencing | Deliver local content to a larger or distant audience |
| 1. Prof Dev -Summer Institute continuance, expand to online participation, Brown Bag seminars | Maintain quality workforce, informative, compressed, fun, | Good attendance, well accepted, costly to travel others emulating, upgrades staff/faculty skills |
| 1. Training to the Desktop (just in-time learning at your desktop) | Costs for traditional training, convenience, improved software options | Re-usable, reviewable, privacy, |
| 1. More Self-help roadmaps, orientations, skills prep, information, etc.) | For students, for staff, for public, 24-7 needs, convenience, available online | Online access expectations, reduced costs, improved services |
| 1. Webinars | Cost effective, outside experts, any topics | Archives for professional development review |
| 1. Cell access to College resources | High demand, public expectations, hardware, software improvements | Public usage, expectations, hardware costs, widespread cell access |
| 1. PDA, IPADS, Tablet computers, netbooks | Exciting opportunities- new delivery methods, hybrid options, readers, multi-media delivery, convenience, portability | Public promotion, excitement, marketing opportunities for ISD |
| 1. Hybridization of content | Can mix & match student needs, learning styles | Studies supporting |
| 1. Electronic access to textbooks | Public perception, costs  Convergence of courses & textbooks, e-readers | Public pressures, legislation Kindle, IPAD, digital book initiatives |
| 1. Electronic business opportunities- ISD course materials | Costs, market opportunities | Public pressures, legislation, Chancellor’s Office project |
| 1. Create CCC “Virtual Campus “ with services student support elements | 50-60% CCC off campus students, travel issues, convenience, 24/7 access | expectations for remote Student services, competitive markets, millions visit 2nd Life |
| 1. “Classroom” outreach through Virtual environments | Supports Hybrid teaching, time savings, extensions of classroom, field trips | Virtual classrooms, math lab, art gallery, social sites, EOC, Military support, et al |
| 1. Learning games, social networking, interactive learning /content | Demonstrated interest, effectiveness, reinforcement, satisfaction | Videogame engagement, social networks numbers |
| 1. Simulations of science & other labs (medical, marine science, geology, chemistry, et al) | Real lab costs, convenience factor, safety, replicability, access, DL needs, time factors, travel | Widespread interest & National discussion , military training examples, public examples, healthcare examples, competition, proven track record |
| 1. Other authentic Labs/experiences (foreign languages, ESL, social sciences, EOC, green technology) | Real lab costs, convenience factor, safety, replicability, access, DL needs, time factors | Student population experienced with simulated worlds/gaming |
| 1. A smart library of resources and media materials | Currently difficult to organize and access varied copyrighted materials, user can add content | Keys to the world of knowledge, licensed, beyond the Internet |
| 1. ISD opportunities | New market options for ISD content | Content interest /needs by customers |
| 1. Learning repository | National / new markets, District faculty access | Merlot interest, publisher sites |
| 1. Student Contributed Content | Relevant, topical, students as contributors, Andragogy,  low cost access | You-Tube, Flickr, Wikis, Facebook, Delicious, Ning, personal Web-pages, LuLu |
| 1. Continue R&D , training , and course development leading to higher order/ critical thinking, problem based learning, authentic experiences | More competitive, what employers ask for, critical to national development, targeting accreditation standards | Research on learning, faculty effectiveness, student satisfaction, learning objectives |
| 1. Training anytime, anywhere, on any platform | Time, convenience, space, work, lifestyle factors | (All DOD education moves to digital/mobile- a new world of factors) |
| 1. New definitions of “Learning” & “Teaching” 2. visualization, augmented reality, component learning | Relevant to evolving learning styles, appeals to human senses, fun, relates to 21st century world, | Shares access, cost effective, accesses the un-accessible (Mars rover, inside of cell, etc.) |

***Example XX:*** *Department Goals Mapped to Master Plan*

***Strategic Action Plan 2010 – 2015***

*Center for Instructional Systems Development*

**Coastline Community College**

*CCC Master Plan Priorities noted in RED*

1. ***Promote the creation of a student-centered environment that provides instructional technology and mediated instructional products as tools to empower students, faculty, and staff for effective learning and teaching now as well as for life-long learning:***
   1. Develop an innovative high-quality state-of-the-art instructional technology-based environment that is transparent, irrespective of delivery option, faculty, classroom, or student location:

* Actively collaborate with faculty and Instructional Administrators to ensure that all students, regardless of center or delivery modality, have access to the same instructional technology and mediated learning resources (1 &2)
* Develop minimum standards for instructional technology to enhance the student-learning environment and promote active learning
  + 1. *Implement WIDS, Designers edge and/or similar technology to expedite and facilitate the application of a consistent high quality approach to instructional design.*
* Provide ubiquitous access to advanced instructional technology and resources for all students, faculty, and staff (1)

1. *Develop collaborative course planning engine (course planning for new courses or programs, e.g., eHarmony-like system where student interest in new courses and/or programs is aggregated and automatically scheduled when a critical mass of students is reached making the courses/program economically feasible. The goal is to offer any course or program students want for credit if they can get enough friends and associates interested.*
2. *Develop automated degree planning system (This will be a challenge since it involves making a commitment to scheduling classes in advance. To make it useful three years into the future is probably a minimum commitment.).*

* Collaborate with partner Colleges, businesses, and agencies to provide a common instructional technology and life-long learning environment for students transferring for higher degree or entering the job market directly (1)
  1. Create support and delivery system for instructional technology that is student-centered and seamless across the College, in classrooms, and in student homes:
* Integrate in all teaching and learning multiple forms of interactive interaction and support delivery (intrinsic learning and teaching support systems, dynamic content/instruction storage and retrieval, instant response, call-center support/tutoring, dynamic ubiquitous instructional databases, multi-sensory synchronous/asynchronous electronic communication, collaborative interactive communication systems) to provide individualized and personalized support for all students (1 &2)

1. *Expand use and development of College repository/SOAR, e.g., learning object, learning asset repository/library.*
2. *Design and develop MySpace Campus and/or MySpace-like system seamlessly integrated with Seaport and other ISD development processes and/or systems.*
3. *Design and develop 2nd Life Campus and/or 2nd Life-Like system seamlessly integrated with Seaport and other ISD development processes and/or systems.*
4. *Continue development and implementation of Seaport test engine (SQuiD)*
   * Develop an “Orientation to Instructional Technology and Mediated Learning Resources” for incoming students, faculty, and staff (1 &2)
   * Evaluate and continually improve the responsiveness of and satisfaction with instructional technology and mediated learning resource capabilities and services at each center (1 &2)
5. *Begin ongoing development of work process tools, e.g., work-arounds to automate Banners processes – i.e., when transcripts are posted in Banner a message would be automatically generated and sent to students via email and/or their announcement channel.*
6. *Implement Virtual offices for faculty & administrators using Elluminate Live.*
7. *Expand early alert system initiated/driven by Seaport to use RSS/RDF features.*
   * Provide at least a minimum set of assistive technologies for disabled students (1, 2 & 3)
   * Establish and manage instructional technology staffing, funding, and resources to position and maintain CCC as a national leader in the design, development, distribution, and application of state-of-the-art instructional technology while maximizing quality teaching and learning for every CCC student (1 &2)
8. *Implement Content Management System to drive MyCCC, CCC Web, Seaport content, etc. This initiative is critical to avoid the proliferation of redundant, incomplete, and erroneous data and to establish a process for review and approval of content prior to publishing to ensure accuracy, currency, and accessibility. Moreover, it establishes a hierarchy of ownership and responsibility for creation, maintenance, and management of content.*
   * Periodically survey students, faculty, and staff to assess customer satisfaction with instructional technology systems and mediated learning resources products and services (2)
   1. Provide appropriate incentives and support to encourage faculty and staff to use and to continually help improve application and use of instructional technology and mediated learning resources for teaching, learning, and support services:
   * Emphasize the *Center for Instructional Systems Design* as the central resource for excellence in technology-based teaching and learning and mediated instruction innovation (1, 2, 3, & 4)
   * Support faculty in the appropriate use of DL and classroom instructional technologies
   * Support faculty development opportunities which result from the exploration and sharing of innovation and effective use of instructional technologies (2 &3)
   * Continually analyze student learning relative to faculty acquisition and use of teaching technology to determine additional needs and to enhance instruction and student service (2 &3)
   1. Position CCC to respond wisely, as new technologies emerge:
   * Establish processes for incorporating new instructional technology initiatives that include appropriate resource planning, implementation, and assessment to ensure viability, proper support levels, and sustainability (2 &3)
   * Evaluate new technologies by using pilot projects across the College and discipline (3)
     1. *Design and develop speech recognition tools and/or systems for use in courses and/or collateral products.*
     2. *Design and develop animation products (2-D & 3-D), demonstrations, models, assets, etc., for use in products and courses.*
     3. *Implement instant response systems & technology for synchronous use in the classroom and online.*
     4. *Develop process to automate and automatically generate and place open captioning on videos for streaming, CD-ROMS, or POD/VODcasting.*
     5. *Create single-sign-on (SSO) for DimDim, e.g., triggered by logging into MyCCC/Luminis.*
   * Determine procedures for turning pilot projects into initiatives when feasible (1 &3)
   * Create a climate for embracing new technologies by providing opportunities and training for faculty and staff to evaluate and use new and innovative instructional technologies and mediated learning resources (2 &3)
   * Identify opportunities for collaborating with community partners in the design, development, acquisition, and implementation of innovative instructional technologies and systems (4)
   1. Encourage active participation at all levels in student, faculty, staff, and community organizations to collaborate and generate ideas for the application and support of instructional technologies that will enhance the student learning and faculty effectiveness:
   * Promote participation in local instructional and information technology user groups to keep abreast of the needs of the local community (4)
   * Create mechanism to evaluate learning and teaching technology needs of local industry and align with program offerings (2 &4)
   * Solicit student views regarding instructional technology needs and effectiveness (3)
   1. Enhance scale and scope of student, faculty, and staff access to and use of instructional technology systems and services:
   * Increase support options for students with laptops, PDA, handheld, etc., by providing innovative mediated instructional systems (1 &2)
   * Prepare for the integration of mobile learning appliances to enable ubiquitous computing (1 &3)
   * Evaluate and update the quantity and quality of interactive simulations, game-based learning systems, learning object databases/repositories, mediated instruction, collaborative learning systems, etc., available to students, faculty and staff (3)
     1. *Design and develop game-based learning systems and/or reusable tools, engines using game –based systems for use in courses and/or collateral products.*
     2. *Design and develop virtual worlds and/or reusable VR tools, engines using VR for use in courses and/or collateral products.*
     3. *Develop game tools for faculty to modify for their classes (courseware and reusable tools/approaches)*
     4. *Develop Simulation tools for faculty to populate and use in their classes (reusable).*
   * Increase or eliminate services as dictated by student, faculty and staff requirements (1 &2)
   * Establish cost-effective programs for students/faculty to learn and/or acquire innovative interactive learning systems, media, and appliances (2)
   1. Facilitate the effective use of the Web-based systems, portals, and databases so students and faculty can easily create and find resources for course work and collaborative learning and teaching activities:
   * Provide appropriate training to students, faculty, and staff on the use of Web-based systems (2 &3)
   * Facilitate the appropriate use of Web tools and other learning resources (2 &3)
     1. *Examine OpenSource LMS, CMSs, Portals, Wikis, Blogs, etc., capabilities and merge into Seaport and/or build links to use with Seaport for added functionality.*
9. ***Develop a flexible infrastructure of instructional technology that will enable CCC to thrive in the present and grow into the future*** 
   1. Increase the scope and effectiveness of instructional Web presence, learning repositories, and interactive simulations:
   * Establish and adopt protocols, standards, and procedures for developing and managing interactive/digital content for delivery using interactive and/or dynamic digital technologies (2 &3)
     1. *Create Schedule Planning feature, e.g., build Travelocity-like schedule planner that allows students to create and compare registration options based on day of week, time of class, instructor, location of class, etc. Results will be automatically posted into the Banner registration page so students can seamlessly continue with the online registration process.*
     2. *Create custom, easy to use report tools generator to extract and analyze data from Banner, CCC Apply, or other system in use by CCC.*
     3. *Automatically transfer military applications received via the IBM Portal and/or other application portals/databases to Banner:*
10. *Implement MyCCC collaborative content development and discussion Board (e.g., wiki, blog, FAQ, etc. ) to assist and facilitate in the development and coordination MyCCC integration and development.*
11. *Aggregate and automatically post Seaport grades to Luminis for transfer to Banner (include provision to lock grades in accordance with Banner rules).*
12. *Automatically post positive attendance and census information to Luminis for transfer to Banner (need to discuss data requirements and rules for reporting).*
    * Develop and/or adopt common instructional design templates, interactive learning shells, and course management system to promote cohesiveness and maintain instructional consistency (3)
      1. *Integrate Seaport & ISD/MPI Shell (dynamic database driven content tools, asset repository)*
      2. *Design and develop (for faculty use) tools and templates for course development (reusable and customizable tools). Launch effort by adapting existing OpenSource and/or internally develop products, e.g., Pachyderm and ISD’s/MPI Initiative.*
    1. Improve and expand instructional technology and/or mediated learning resources in teaching and learning across the Board through the use of communication technology:
    * Maximize the effective use of learning communities using asynchronous and synchronous collaborative learning and teaching systems (2 &3)
    * Continually investigate new ways to use communication and collaboration tools to improve instructional technology and/or to more effectively deliver mediated learning resources/systems (2 &3)
      1. *Create automatic alerts for students triggered by Seaport (allow students to turn alerts off or on, select the type of announcement wanted, and delivery options),*
    * *Types of alerts*: advance notice of upcoming test, quizzes, assignments, or projects (anything posted in the gradebook).
    * *Options for delivery of alerts*: send via G-mail and/or student announcement channel.
    * *Performance alerts:* send grades for activities as they occur with the option to see grades in comparisons to class, e.g., median, average, and standing.
    1. Collaborate and optimize relationships between CCC and other College instructional technology units, staff, and experts to ensure that the CCC students obtain cost-effective and beneficial services:
    * Ensure a balanced constituency-based approach on initiatives that are instructionally sound and sensitive to student and community interests (3)
    * Take advantage of shared and/or collaborative approaches to the evaluation, acquisition, and implementation of innovative instructional technology or learning systems to promote cost savings and cohesiveness (2 &3)
      1. *Develop process of scoring and posting SLOs in Seaport, whereby assignments and activities posted in the Seaport gradebook are automatically extracted and parsed in a format appropriate to score SLO metrics (this is critical task since manually posting/scoring data for SLOs will be a tedious and complex process, making it difficult to implement and achieve objectives).*
    * Continually identify new technology-based services, systems, or process that when shared and/or centralized will improve effectiveness of service, reduce cost, and improve teaching and learning (3)
    * Create common practices, procedures, protocols, guidelines, etc., that enable access to instructional resources for staff and students whether on a campus or at home (2 &3)
    * Pilot promising instructional technology and/or interactive mediated learning resources/systems (2)
13. ***Establish expanded*** self***-sustaining capacity to promote the design, development, acquisition, and implementation of state-of-the-art learning technologies and mediated learning resources/systems for CCC.*** 
    * + 1. Market mediated resources and technologies designed and developed for teaching and learning to Colleges and universities nationwide. (2 &3)
      1. *Design and develop e-Commerce “Store-Front” to market and sell CLS products and services, contract education non-credit courses, custom-one-off courses, student creative products, e.g., games, models, art, programs, photos, etc. (for share of revenue and the business experience).*
         1. Develop collaborative partnerships with other Colleges, corporations, and government agencies to share in the development of innovative learning systems/resources that will benefit CCC and improve teaching and learning. (2 & 3)
         2. Pursue creative funding strategies, with regional collaboration and community involvement, to bring new instructional technologies and mediated learning resources to CCC and our students:

* Identify grant opportunities for instructional technology initiatives and determine the protocol for linking grant opportunities with CCC initiatives (1 & 2)
* Develop innovative partnerships and joint ventures to evaluate and implement new and innovative teaching and learning systems (1 & 4)

1. ***Provide instructional technology training and professional development opportunities for our staff and the communities we serve***
   * 1. Identify opportunities in the community and among the District Colleges to share the cost of training and acquisition of technology enabled learning and teaching (3)
     2. Support the creative use of instructional technology and learning resources to increase diversity awareness and appreciation (2)
     3. Provide incentives to staff and faculty to assist in the design and development of instructional resources/systems that will benefit CCC and improve teaching and learning (1)
     4. Develop training programs to provide skill building in the design, application, and/or acquisition of instructional technology and interactive mediated learning resources:

* Develop training plans for those implementing new instructional technology initiatives as well as for those providing the training for new initiatives (1 & 3)
* Identify expectations for the use of instructional technology and mediated learning resources by faculty, staff, and students (1 & 3)
* Support, use, and develop incentives for faculty and staff to use training programs (1 & 3)
* Develop and/or participate in community/regional user-groups for sharing expertise on specific technologies (1 & 4)
* Develop plans to provide work release time and incentives for staff and faculty who participate in community/regional user-groups to design and development new instructional technology/system and/or learning resources that will benefit CCC and its students (1 & 4)