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Guam Community College: Standard Operating Procedure – Draft

May 13th, 2014

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Distance Education Standard Operating Procedure (2014 – 2020)

Introduction

Guam Community College is a leader in career and technical workforce development and provides the highest quality, student-centered education and job training for students in Micronesia. This Distance Education Standard Operating Procedure (DE - SOP) Manual will be used in tandem with the DE Strategic Plan (DE - SP) to achieve the Distance Education goals of GCC.

The college is considering a broad range of DE courses which will fall into two distinct categories as defined in DE Policy 340:
1. Hybrid – This course type is offered in such a manner that 50% of the classes are held on campus (traditional face-to-face) while 50% is held fully online.
2. Fully Online – Course is offered fully online with no expectation for the student to come on campus.

This DE-SOP provides processes and guidelines for the management of DE across the academic, administrative, technical and student support sectors. The SOP will provide pathways that if utilized will maintain consistency in DE course and program management, will build clarity in the processes used to support DE and will minimize uncertainty in developing and managing the DE courses and programs. The processes included in this document reflect the focus areas determined from the DE-SP and will be used in tandem with the DE – SP document.

DE Organizational Structure

Below is the organizational structure for DE support at GCC. In lieu of a Chief Information Officer, the Helpdesk could be incorporated within Student Support Services, MIS would continue to work in collaboration with Academic Technology in providing technical support and report to finance as is the current status. The following offices directly support DE: Finance, Academic Affairs, Communications
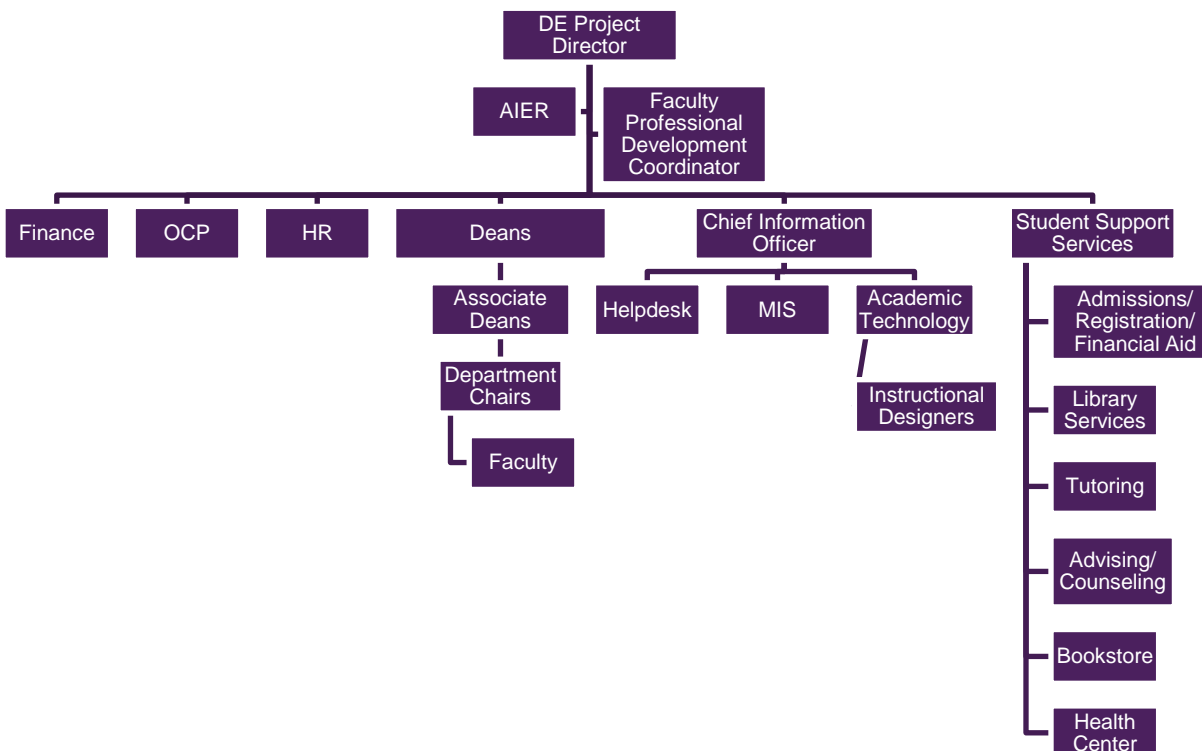
and Promotions (OCP), Deans, Department chairs, Human Resources (HR), AIER and Student Support Services. It is recommended that a faculty professional development coordinator support DE faculty training and professional development. In lieu of this position, the office of Academic Technology in partnership with Academic Affairs can support this role.

DE Implementation:

DE implementation at GCC will be done in partnership with all stakeholders who constitute the DE support organization as presented in the organization chart above. Specific measurable objectives as outlined in the DE strategic plan should be assigned to task owners from within the DE support organization and timelines created for achievement of each objective. The chart in appendix 6 provides a DE implementation timeline developed during the DE strategic planning process with the DE taskforce. Target measures and task owners are yet to be assigned to each objective. Each of the stated objectives will have an impact on the DE organization so it will be important to assess the DE implementation process carefully and closely. Each objective will have specific tasks that will be assigned to it by project owners, and these tasks when accomplished will bring GCC closer to its DE goals. An important factor in sustainable DE provision by an institution is the DE financial model, and this should be considered before and during the DE implementation process. Financial support during the lifetime of DE at the college will ensure that the college remains competitive in the DE landscape.

DE Academic Programs:

DE Programs at GCC constitute those programs that are offered as hybrid or fully online programs of study. Hybrid programs will require the students to be onsite for at least 50% of their study, while the fully online programs do not have an on-campus expectation. DE programs will be selected based on market need as determined by the department advisory committee. Currently, the college selects programs to be developed following advice from industry partners, faculty members, department chairs and student needs. In order to develop robust DE programs, the college should employ an additional aspect to the program selection process which includes a specific needs analysis for hybrid or fully online programs. This information would be garnered through market research specifically addressing the program question:

1. Does the department need this program of study to be delivered via distance education?
    a. What data points to this need?
    b. Is the program going to be delivered as a hybrid or fully online Program?
2. Is the program of study being sought by local Guam residents and/or international students?
3. Does the department have faculty members who would be able to teach all the courses in this program via distance education?
4. How prepared are the faculty members to undergo professional development training in order to establish a robust and competitive distance education program?
5. Does the department have the financial resources to allocate towards instructional design for distance education courses?
6. Does the institution have the marketing resources to attract students to the program and minimize internal cannibalization of students?

DE Program Development and Delivery Process

The process of developing and then delivering the DE program would require an initial market research that specifically targets the program of interest. This would be followed by faculty engagement and course development. During the course development process, the program landing pages and marketing strategy would be running concurrently. This will ensure that when GCC is ready to offer the program, all required institutional resources will be in place to support student access to the course(s). All courses

offered via DE at GCC will undergo evaluation and the program will undergo review on an annual basis to determine its impact and value to GCC.

DE Course Selection and Development:

Course selection will in many instances mimic program selection as described above. Usually, course selection impacts the rate of full program roll-out. A full Program of Study (POS) layout will determine the sequence with which courses are developed for DE programs. Sometimes, a series of DE courses are developed that do not directly complete a full POS. In such instances, the course selection process should reflect the POS process and the questions to be asked would be as follows:

1. Does the department need the course to be delivered via distance education? What data points to this need?
2. Is the course being sought by local market (internal GCC students and Guam residents) and/or international students?
3. Does the department have faculty member(s) who would be able to teach this course via distance education?
4. How prepared are the faculty members to undergo professional development training in order to establish a robust and competitive distance education program?
5. Does the department have the financial resources to allocate towards instructional design for this distance education course?
6. Does the department project high enrollments in this course, and will a master course be developed which will then be personalized by individual faculty members teaching the course?

Program Assessment
-Student Success Assessments
-Course Evaluations
-Faculty member Evaluations
-Student Support Service Evaluations

Program Delivery
-Course Development Completion
-Course Delivery by Faculty member
-Student Support Services

Program Marketing
-Landing Page Development
-Program Marketing Strategy Development

Program Development:
-Course Development
-Faculty member Engagement

Market Research

7. Has the course already been developed as a web-enhanced course?
8. Is the course to be developed as a hybrid or fully online DE course?

Course Development Pathways:

There are multiple pathways by which a DE course (hybrid or fully online) can be developed at GCC as shown in the schematic below. Face-to-Face (F2F) courses can be directly developed into hybrid or fully online courses depending on factors such as; the faculty member's readiness to build the course, the availability of resources (e.g. media), and the availability of sufficient training and instructional design support. Some faculty may take the route of enhancing their F2F course with web-based resources and utilizing the LMS. This may be followed by web-enhanced courses being developed into hybrid and then fully online courses. However, it is important to note that hybrid courses do not need to convert into fully online, nor do web-enhanced courses have to convert into hybrid and then fully online. These transitions would occur if it is the intention of the faculty member/department to offer the courses in a DE format.

Pathways for DE Course Development

Face-to-Face Course	Face-to-Face Course	Face-to-Face Course	Fully Online Course	Face-to-Face	Face-to-Face Course
Web-Enhanced Course	Web-Enhanced Course	Hybrid Course	Hybrid	Web-Enhanced course	Fully Online Course
	Hybrid Course			Hybrid Course	
				Fully Online Course	

Hybrid DE Courses

Fully Online DE Courses
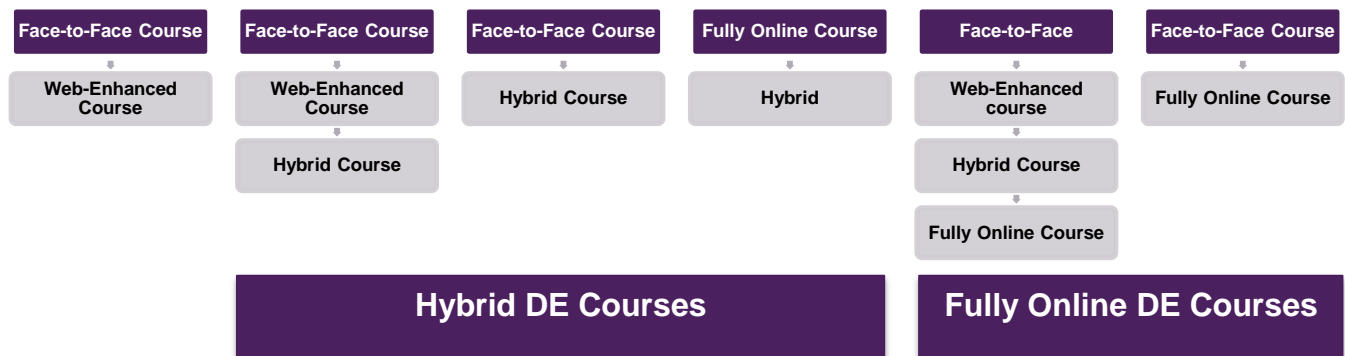
GCC DE Course Development General Information:
Instructors will be set up with a development copy of their course. When complete, this course will be copied into the courses used by the students. This is to ensure that the course will be finished before students can view it.

The final version of all courses, as signed off by the instructor, will be stored in the GCC LMS repository of courses (MIS/AT). This course will be updated by the course author and serve as the origin for all versions of the course taught during the semester.

Course navigation will be consistent across all GCC DE courses. A sample course shell with basic navigations tabs is presented in the adjacent figure.

Material will be organized into Modules and placed as FOLDERS within the LMS. It is understood that each Module will correspond to a course week.

There are specific best practices governing the links and information to be included in the syllabus for all GCC DE courses. Faculty members will check with their respective departments to make sure that the syllabus has all of the appropriate sections and requirements.

A course development process will then ensue between the faculty member and instructional designer as presented in the course development schematic below. A Kick-off meeting between the Instructional Designer and the faculty member to fill out a **Timeline Document** is highly recommended; this timeline agreement would then be signed and submitted to the DE director for approval. The timeline provides for an iterative process, giving the instructor time to provide feedback and review the course.

Course Shell Navigation (Sample)

| Announcements |
| Syllabus |
| Weekly Module |
| Discussion Boards |
| Contact my Professor |
| My Grades |
| Help Desk |
| Moodle FAQ |
| Student Support Services |

DE Course Development Schematic

| Initial Meeting | → | Identify Course Content | → | Define Learning Module process | → | Learning Module Prototype | → | Develop Learning Modules | → | **Final Online Course Materials** | → | **Online Course Review** |

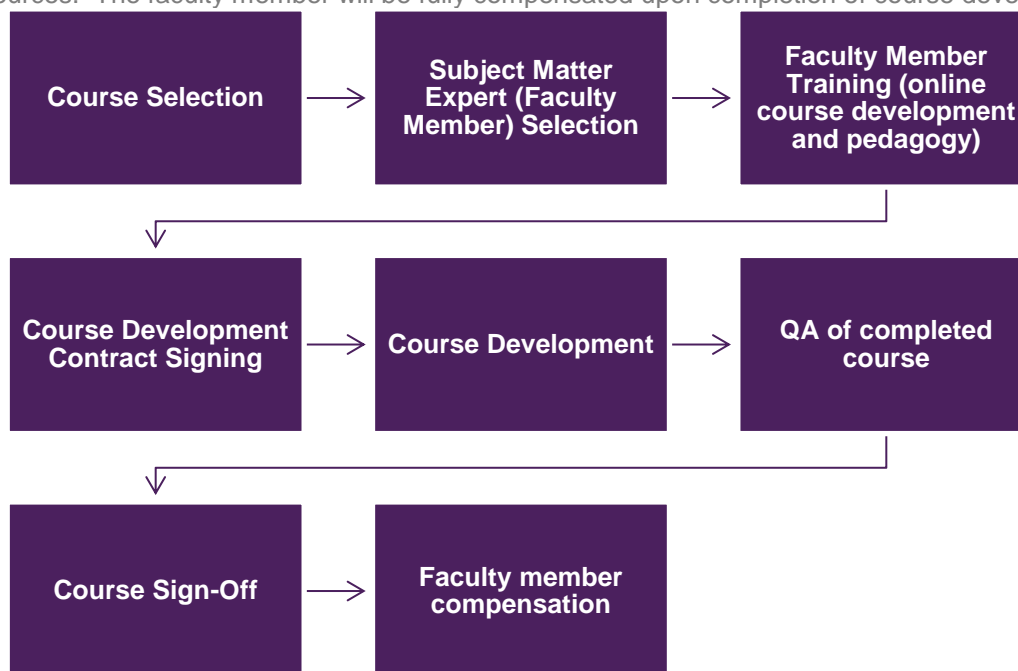| Steps	Steps	Steps	Steps	Steps	Steps	Steps
Establish relationship between ID and Instructor Identify Course Goals and Audience Define Roles of the Instructional Designer (ID) and Subject Matter Expert (Instructor) Identify all stakeholders (other Instructor's)	ID obtains the course outline from Instructor Identify learning objectives within course outline Assess lecture time spent on individual course outline topics Identify supplemental resources	ID and Instructor organize course concepts into Learning Modules ID and Instructor define the standard components of each learning module ID and Instructor develop standard instrument /template for transferring content with each other Define and describe the process for how traditional content is transformed into online content	ID and Instructor work through defined process and make initial LM prototype ID assists Instructor with online content creation Expectation for online content is clearly defined	1. Instructor delivers narrative for all learning module components to ID 2. ID recreates Instructor narrative into online course and submits back to Instructor for review 3. Instructor reviews first iteration of online module, makes changes, submits changes to ID 4. ID makes changes and submits 2nd iteration back to Instructor 5. Instructor reviews changes submits 2nd revision to ID 6. ID makes revisions 7. ID and Instructor develop supporting activities/assign/assessments for Learning Module 8. Repeat for all Learning Modules	Additional course materials identified and developed by Instructor Additional Materials uploaded/built in CMS	Institutional Peer Review of Online Course SGHE final proof of course content
Outcomes	**Outcomes**	**Outcomes**	**Outcomes**	**Outcomes**	**Outcomes**	**Outcomes**
Understanding of course goals and audience Agreement on defined roles for ID and Instructor Clearly identified roles for all stakeholders	Instructor and ID agree upon Online Course Outline Understanding of time on task for each concept (what will become learning modules) Identification of all supplemental resources	Identification of all online learning modules Agreement on standard learning module components Established instrument for transferring information Agreed upon process and timeline for building online course	Demonstrated working process for created content Initial learning module is created Instructor understands what is necessary for online content creation	Learning Modules are developed from the traditional course content Learning modules are revised two times Supporting online activities, assignments, and assessments are developed for each learning module	Additional materials such as syllabus, course description uploaded into CMS Final course is developed	Online course is proofed by both institution and SGHE Final changes and revisions are made

Faculty Compensation for Curriculum Development:

Faculty compensation will be established based on current pay structures as determined by Human Resources and described in the faculty member handbook. Compensation for curriculum development should be determined based on the type of course that is being developed and the effort required for building the course. Typically, a fully online course development process is compensated higher than a hybrid course development. Also, a contractual agreement indicating final compensation of the faculty member after course development is completed should be maintained by the DE department and Human Resources. The faculty member will be fully compensated upon completion of course development.

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┌──────────────────┐      ┌──────────────────┐      ┌──────────────────┐
│                  │      │  Subject Matter  │      │  Faculty Member  │
│ Course Selection │ ───> │ Expert (Faculty  │ ───> │ Training (online │
│                  │      │ Member) Selection│      │ course development│
│                  │      │                  │      │  and pedagogy)   │
└──────────────────┘      └──────────────────┘      └──────────────────┘
         │                                                     │
         ▼                                                     ▼
┌──────────────────┐      ┌──────────────────┐      ┌──────────────────┐
│ Course Development│     │                  │      │                  │
│ Contract Signing │ ───> │ Course Development│ ──> │ QA of completed  │
│                  │      │                  │      │     course       │
└──────────────────┘      └──────────────────┘      └──────────────────┘
         │
         ▼
┌──────────────────┐      ┌──────────────────┐
│                  │      │  Faculty member  │
│ Course Sign-Off  │ ───> │  compensation    │
│                  │      │                  │
└──────────────────┘      └──────────────────┘
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Course guide requirements:

Course guides for DE will be developed in tandem with course development within the LMS. The final DE course guide will be submitted to LOC for review prior to final course approval for delivery to students. The LOC review will occur in parallel with online classroom evaluation process described below. Current institutional course guide development will be adhered to and modifications in the process will be made based on whether the course is a hybrid, in which case 50% of the course is offered on-campus or fully online whereby the course is developed for a remote student learning experience.

Instructional technology training:

Faculty members will be expected to participate in mandatory training in preparation for online course delivery. These two courses are a) Online course development using the institutional LMS and b) Online Instruction Pedagogy to support faculty interactivity in online classrooms. The course content and objectives are as outlined in the SP document on faculty training.

LMS Selection and Implementation

In the event that a decision is made to adopt a new LMS, then an LMS search and review committee/taskforce would need to be established, so that they can embark on the process of selecting a new LMS. The LMS committee/taskforce would then determine the minimum LMS system and support requirements that meet institutional needs. Once the LMS has been selected, GCC would initiate the migration process. This can be arduous; however, there are best practices that make the transition from one LMS to another as seamless as possible. Below is a summary of processes that describe LMS parameter review, LMS selection and finally migration of content to the new LMS. How to choose an LMS

1. LMS Parameter Review & Establishment	2. LMS Vendor Engagement and LMS Selection	3. LMS Migration
• Input from a cross-section of all LMS users within the institution should be sought. • Prioritization of all suggested parameters will be done by the LMS Committee/Taskforce within GCC • Committee/Taskforce will come to agreement on parameters that meet institutional needs and goals. • Review of current LMS systems in the market to determine which ones' have features that the college needs in order to meet student outcomes and institutional goals.	• Establish a comparative LMS chart that will guide the college in vendor selection and outreach. • Invite LMS vendors and have demos presented by the companies • Run further reveiw of the LMS market following vendor presentations to determine if there are additional vendors or features that may be of interest to GCC prior to making an LMS decision. • Develop a pilot implementation of the selected LMS	• Develop an LMS migration timeline and plan • Migration plan should factor in course prioritization and batching. In conducting the migration, it is recommended that the courses be batched by program or department. This will allow GCC to concentrate training efforts on one group of faculty and students at a time.

"Choosing a learning management system is one of the most costly and time-consuming decisions schools or districts must make as they expand their technological infrastructures. An LMS is a robust piece of software that provides an online portal for classrooms, serving administrative functions for educators and allowing students to view assignments, grades, and learning materials. Some can be used to deliver entire courses. Once an LMS is in place, it can be difficult and expensive to switch to a different one. That's why making sure it's a good fit initially is crucial." ~Katie Ash in ***Education Week.***

Steps to Choosing an LMS
1. Determine which Learning Management Systems meet GCC's LMS requirements. GCC must come to a determination on the priority of the considerations identified in Appendix 5. Using that information, GCC can determine which LMS's could potentially serve its needs.

2. GCC should investigate the demos and free trials made available by competing vendors as identified above. A cross-section of the GCC community should be included in the process so that input from all affected users (students, teachers, AT, academic administrators, MIS) is considered.

3. The LMS user experience should be assessed. Feedback from customers of LMS vendors and hosts should be pursued and taken into account in the decision making process.

4. Financial considerations for LMS acquisition, utility and maintenance should be considered. The total cost of ownership—contracts, time investment, internal support necessary—should be calculated when comparing solutions.

Migration Timeline and Plan – Course migrations can take from six months to about two years; usually, the two LMS are run in parallel during this time. Although this can result in additional costs, running the systems together for at least a semester would allow time for GCC to carry through the migration plan according to the timeline.

Any plan should include the following elements; these can be undertaken concurrently:

1) **Preparation for Migration**
   Begins immediately after new LMS selection and estimated to take 2-3 months
   The following lists the steps that should be undertaken before migrating courses:

a. **Template Creation**: A template, or similar look and feel, should be created in the new LMS. The migrated courses should be situated within this template. A template can have slight variations depending on college or department; however, the structure and navigation should remain relatively consistent. This simplifies training for faculty and the learning curve for students. It is particularly important in getting the community up to speed on a new LMS.

b. **Course Staging**: Migration can be simplified by working with instructors to "stage" their courses for the transition from one LMS to another. Staging includes the following:

- **Deleting items that will not be used** – This will simply the migration process as it insures only those items that will be necessary will be transitioned.

- **Incorporating Discussion and Email information into Learning Modules** – Discussion and Email information is typically not migrated because it is considered to be student information. Therefore, it is important for instructors to put this information into areas that will be migrated.

2) **Faculty Training and Support**
Begin after Template Creation and estimated to take a year, but also ongoing

Faculty training and support for a new LMS is a multifaceted process which should be ongoing as new faculty come on board and others move past the beginner stage to become interested in intermediate activities. In addition to face-to-face workshops, training should consist of online tip sheets, online self-paced training modules, brief instructional videos, and technical support. It is highly recommended that faculty members prove proficiency in the new LMS, either through attaining certification or demonstrating their ability with course materials

3) **Migration Process**
Usually takes place about six months after selection and can last six months to a year

Depending on the LMS selected, the migration will most likely be somewhat of an automated process; however, faculty or instructional designers will have to review the migrated course for consistency and any differences between the LMS that would require structural modifications. Faculty members will have to be trained or assisted in this process; this process should be documented in advance of the migration.

Classroom requirements

The online classroom will be reviewed prior to being made available to students using a course checklist as a guide (Appendix 1). This checklist is based in part on standards developed for Quality Matters (http://www.qmprogram.org) to assure quality in courses that are delivered electronically. An integral part of the course design process will be the use of this checklist to ensure consistency in course development across the institution prior to final approval.   Each course (online/hybrid classroom) that is hosted within the LMS will have the following components at a minimum: A generic course navigation table is found in Appendix 3

- ✓ Course Introduction / Overview
- ✓ Learning Objectives
- ✓ Assessment and Measurement
- ✓ Instructional Materials and Resources
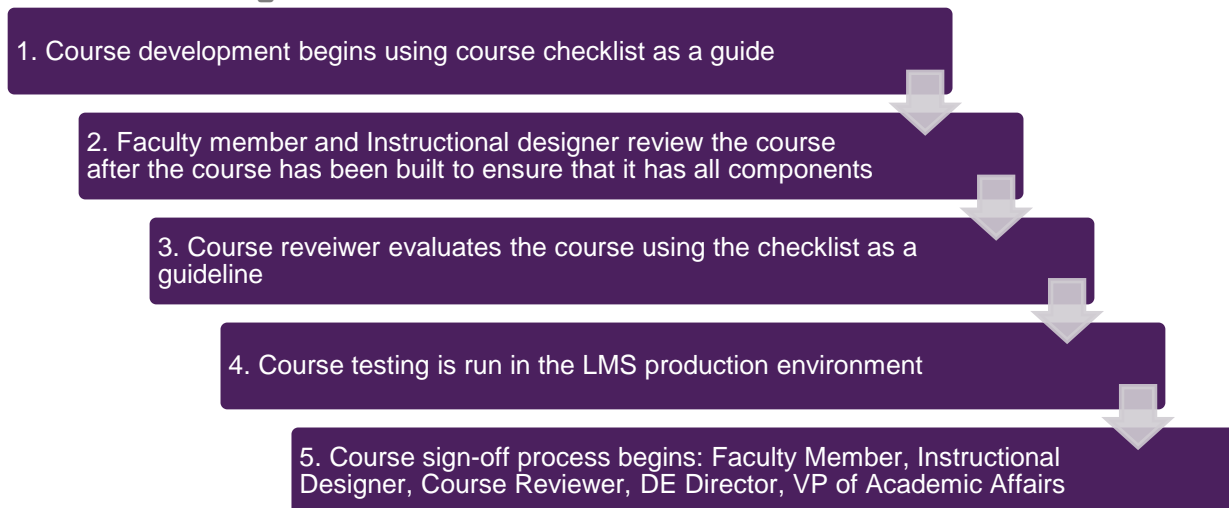- ✓ Access to Student Support (Library, Technology Support, Tutoring etc.)

The online classroom checklist will be completed by an authorized reviewer (Course/Faculty evaluator or Learning Outcomes Committee appointee) after it has been reviewed by the faculty member and corresponding instructional designer.

Faculty requirements

It is highly recommended that faculty members teaching DE courses will:

- ✓ Participate in training for online course development using the institutional LMS and also take training in online teaching pedagogy.
- ✓ Communicate with students in a timely manner and make themselves available to students in the online course.
    - o Typically a note in the syllabus stating that the faculty member will communicate back to the student within a 24h window is sufficient. However, it will be important that the faculty member follow through on this commitment.
    - o Faculty members should provide more than one way for the student to reach them. This information is indicated in the syllabus and the announcement page.
- ✓ Offer virtual office hours for the DE students, to ensure that the student receive the support they need to be successful in their online course(s)
- ✓ Develop a DE course that has similar rigor and interactivity as the traditional face-to-face course.
- ✓ Build the DE course per contract agreement from a timeline perspective.
- ✓ Maintain grades within the course gradebook so that students obtain timely feedback from their assessments
- ✓ Complete an alternative instructional equivalencies (AIE) document which provides a comprehensive summary of the course activities, allocated time-on-task for each activity, instructional best practices, and total instructional time in the course (Appendix 2)

Student training and Orientation to Online Environment

1. Course development begins using course checklist as a guide

2. Faculty member and Instructional designer review the course after the course has been built to ensure that it has all components

3. Course reveiwer evaluates the course using the checklist as a guideline

4. Course testing is run in the LMS production environment

5. Course sign-off process begins: Faculty Member, Instructional Designer, Course Reviewer, DE Director, VP of Academic Affairs

It is recommended that an online student orientation be created and required, along with training for students on the learning management system. An assessment of student readiness for both college level courses and online courses should be required. This information will then be used to guide future student advising, and additional training and orientation processes. Provision of the student handbook (made available online) should be maintained.

In order to ensure that students are well prepared for the rigor of DE courses, they will be required to:

- ✓ Participate in a mandatory online LMS and student success orientation course that teaches student success principals in the online classroom.
- ✓ Take an online student readiness preparation survey, so as to self-evaluate their online readiness.
- ✓ Use college email address, so that their faculty members and student support staff can easily communicate with the student in the event that there are issues that directly impact the course/program.
- ✓ Sign off on an academic honesty policy agreement to ensure that is compliant with institutional academic dishonesty principals.
- ✓ Meet with an advisor every semester that they are engaging in the DE Program, to support the student in their program completion agenda.
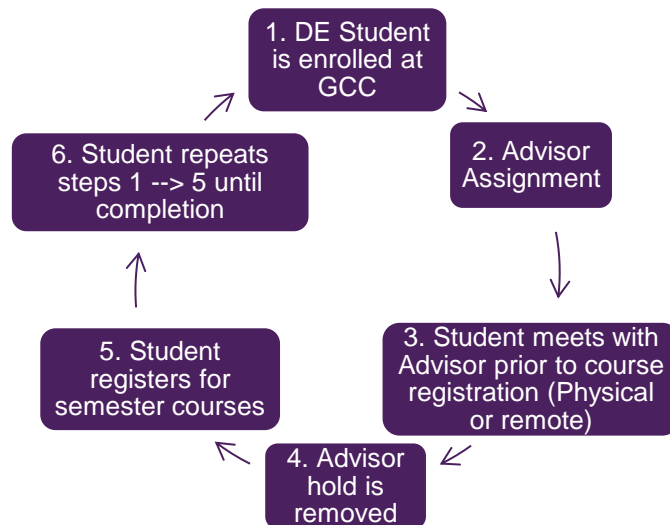
Support Staff training

Support staff in Academic technology, MIS, all student support services, administrators and non-teaching faculty will undergo continuous training for process improvement in their respective departments. Training may entail technological, team building and customer service (students, faculty and colleagues) components, to ensure that all aspects of the DE support structure is aligned with provision of high quality service to all stakeholders.

Admissions / Registration

Establishing mechanisms that ensure online student admissions and registration, in addition to Financial Aid assistance, tuition and fees payment and access to the college ID will be via the MyGCC portal. Students participating in hybrid courses and programs may be able to register on campus. However, fully online students will require automated provisions student support services across the whole enrollment pipeline including admissions and registration[1], financial aid and finance. Current processes are as outlined in the DE capabilities assessment report.

Advising/Counseling

All students participating in DE programs will be expected to meet with their advisors every semester prior to registering for courses as shown below. Advisors / counselors will review the students' progress through their specified POS and make recommendations for the next series of courses. This will ensure that students reduce their time to completion. Advisors will be provided with updated POS from the departments offering DE programs, to ensure accurate advising of students. Advisors will notify the department chair in the respective departments in the event that a DE student does not meet with an advisor prior to course registration. Fully online students will require remote advising support, however students enrolled in hybrid courses or programs will be able to obtain their advising on campus.

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1. DE Student is enrolled at GCC

2. Advisor Assignment

3. Student meets with Advisor prior to course registration (Physical or remote)

4. Advisor hold is removed

5. Student registers for semester courses

6. Student repeats steps 1 --> 5 until completion

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[1] The steps in these processes currently follow those outlined in the DE capabilities report but should be optimized following Banner revitalization

Health Center

Students taking fully online courses will be exempt from the requirement to have a health certificate clearance unless they will also come on-campus to take courses. Students taking hybrid courses or programs will be required to obtain health clearance, prior to the health "hold" being released from their banner record for the given enrollment semester, and will follow current institutional clearance methods.

Academic Technology and Information Technology Support

GCC's Information Technology (MIS) and Academic Technology (AT) departments will provide support as previously discussed during strategic plan development (DE – SP, Appendix 5). The AT and MIS tasks outlined below represent the minimum requirements for optimal operation of distance education within the college when. Continuous training of staff members who support AT and MIS will be essential in ensuring continuous improvement of the services that support students and faculty in DE.

Information Technology

Information Technology is responsible for configuring and maintaining all internal systems that provide electronic and/or digital information transfer and storage. The Director of Information Technology:

- Oversee:
    - budgeting for information technology resources (hardware, software, contracts)
    - IT equipment, software, support, and security resource planning processes
    - IT staff training and development
    - contracts and partnerships, including third-party vendors related to IT
    - network and systems reliability
    - security software, hardware, policies and practices
    - end-user support of technical tools and services for faculty, staff, and students
    - data redundancy policies and processes
- Manage and maintain:
    - network systems, subsystems and servers
    - the computer/server room operation and environment
    - staff and student-facing technology (e.g. computer labs, faculty and staff computers)
    - communication systems (e.g. telephone, email, wireless network, television and AV systems)
    - software deployment and new hardware integration
- Work in a collaborative and collegial way with personnel including:
    - all departments
    - all faculty and staff
    - vendors
- Have knowledge of:
    - best practices in data storage, redundancy, network management, failover, systems integration, etc.
    - security concerns and issues related to higher education, including but not limited to FERPA, encryption, and password management
    - trends, products, equipment, tests, etc. for the purpose of recommending procedures and/or purchases

<u>Academic Technology</u>

Academic Technology is responsible for the development, management and evaluation of all technologies that support teaching, learning and research. The Director of Academic Technology:

- Oversee:
    - budgeting for academic technology resources (learning management system, web conferencing and other third-party academic tools)
    - academic technology resource planning processes
    - staff and faculty development programs within AT
    - contracts and partnerships, including third-party academic tools
    - compliance with ADA, FERPA, fair use, and copyright laws
- Manage Academic Technology services that include:
    - instructional design (instructional guidance in development of activities and assessments for web-based, hybrid, and online courses)
    - faculty development
    - student readiness
    - support of the implementation of academic technologies
    - evaluating and assessing effectiveness of teaching and academic technologies
    - defining practices, standards and procedures in regards to academic technologies
- Have knowledge of innovative teaching and academic technologies such as:
    - e-portfolio software
    - student response systems
    - learning management systems (e.g. Moodle)
    - mobile computing devices and applications
    - video conferencing
    - third party academic delivery tools (e.g. Voicethread, Prezi, Jing)
- Work in a collaborative and collegial way with personnel including:
    - academic offices
    - faculty and students
    - the library
    - MIS
    - vendors

Library Support.

Library support staff will participate in continuous training and process improvement to stay abreast of new digital library technologies and will support to distance education students by:
- Providing ebooks that are considered essential reference materials by faculty members
- Offering extended hours on weekends and nights to support the needs of DE students
- Having sufficient human resource to support phone and email requests from DE students
- Supporting a chat function as a part of the library (If this feature is incorporated as part of the library service)
- Increasing access to Audio/Visual resources that will support student learning – Library portal may provide access to instructor AV resources.
- Developing and maintaining an online library orientation for DE students to ensure ease of access to library resources.
- Providing access to the library through the LMS

Bookstore

Students participating in DE will be able to access their books through the bookstore. Processes to optimize book availability and cost to students include:

- Early faculty member assignment to DE courses, so as to ensure book submissions to the bookstore are done in a timely manner to provide sufficient time for book orders.
- Increased use of ebooks for courses that are DE
- Bookstore partnership with efficient yet low-cost mailing services to ensure that students obtain their textbooks in a timely yet economical manner
- Easy access to online bookstore inventory – Ensures that students are aware of book availability and their costs.

Marketing

The process of supporting DE at GCC will include continuous assessment of DE webpages and advertising to help optimize outreach and communication to prospective students. Search Engine Optimizations (SEO) including keyword and competition analysis, creation of semantic markup content (page titles, url structure, h1, h2, h3 tags, meta tags, meta descriptions) and copywriting to ensure increased rank in search engines will be reviewed. Additionally, maximizing GCCs advertising potential by exploring keyword possibilities and monetizing campaigns, ad groups, and keywords for increased conversions for student enrollment should be examined periodically. A comprehensive external marketing plan that attracts external students will increase desired enrolment and minimize institutional cannibalism from in-seat courses and should be updated annually or with each new program addition. Additionally, an internal marketing plan to support current students and faculty will be factored into all communication. Outlining Key Performance Indicators (KPIs, as outlined in Appendix 6 of the strategic plan) will support the tracking of marketing efficiency of DE programs and courses.

Appendix 1: Online Course Design Checklist

This checklist is based in part on standards developed for Quality Matters (http://www.qmprogram.org) to assure quality in courses that are delivered electronically. The *Online Course Design* Checklist is to be used as a guide for designing an online course, and is to be used in preparation for final the final review and approval process for course build deliverables.

Course Introduction / Overview

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
Clear instructions are provided to navigate course components				
Students are introduced to the purpose, structure, and major outcomes of the course.				
Netiquette rules and expectations are stated clearly for online discussions, e-mail and other forms of communication.				
Course and institutional policies regarding academic rights and codes of conduct (and expectations are stated clearly, or a link to current policies is provided.				
Prerequisite knowledge and/or required competencies required for the course are stated clearly.				
Minimum technical skills necessary to participate in the course are stated clearly.				
Instructor Bio or self-introduction is available online.				
Instructor contact information is available online and is readily visible.				
An introductory/ice-breaker activity to help students get accustomed to the course site, and become acquainted with each other and netiquette is present in the course.				
The complete and appropriate syllabus is uploaded to the site and resides in an area that is easily accessible.				
A concisely formatted calendar of specific due dates is posted with introductory material.				

Course Introduction/Overview Additional Notes/Comments:

Learning Outcomes

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
Course learning outcomes describe outcomes that are measurable, and are reflected in the course assignments, exams, and other learning activities.				
The learning outcomes in the course are appropriate for the level of the course.				
The module/unit learning outcomes describe outcomes that are measurable and consistent and align with the course-level outcomes.				
Learning outcomes are written from the student's perspective and stated clearly.				
Instructions provided to students on how to satisfy the learning outcomes in each lesson are stated clearly.				
Instructions allowing for student questions regarding fulfillment of learning outcomes are clearly stated, as well as required response time from instructor.				
To the extent appropriate for the course and content, learning outcomes incorporate and promote relationship and application to career, professional development, and lifelong learning.				

Learning Outcomes Additional Notes/Comments:

Assessment and Measurement

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
The types of assessments measure the stated learning outcomes, and are appropriately consistent with the course level outcomes.				
The types of assessments selected are consistent with the course activities and resources.				
The course grading policy is stated clearly.				
Assignments are stated clearly and grading rubrics are provided to evaluate students' work and participation.				

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
The assessment instruments are **sequenced**, **varied**, and **appropriate** for the student work being assessed, and are aligned to the weekly learning outcomes.				
The assessments are designed to meet varied learning styles				
Ample opportunities are provided for students to measure their own level of understanding and progress, in addition to obtaining helpful feedback.				

Assessment and Measurement Additional Notes/Comments:

Instructional Materials and Resources

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
The instructional materials contribute to the achievement of the stated course-level and module/unit-level learning outcomes.				
The selected instructional materials and the way the materials will be used for learning activities are stated clearly.				
Resources and materials used in the course are cited appropriately.				
The instructional materials and chosen text(s) are current and support learning.				
Instructional materials present a variety of perspectives on the course content.				
A clear distinction between required and optional materials exists and is clearly explained.				

Instructional Materials and Resources Additional Notes/Comments:

Learner Engagement and Building Community

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
The learning activities promote the achievement of the stated learning outcomes.				
Opportunities for interaction and meaningful collaboration exist.				
Learning activities selected support active learning.				
Sufficient opportunities exist for learners to communicate with their peers.				
Sufficient opportunities exist for learners to communicate with the instructor.				
Classroom response time and feedback for course assignments are clearly stated and available.				
Requirements for student participation and interaction are stated clearly.				

Learning Engagement and Building Community Additional Notes/Comments:

Course Technology and Navigation

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
The selected tools and media support the course learning outcomes and are appropriately chosen.				
Course tools and media support student engagement and active learning				
Navigation of online components throughout the course is logical, consistent, and efficient.				
Technologies in the course are readily accessible, current, and effective.				
Gradebook is categorized logically and organized consistently across the program.				

Item				
All Assignments, Discussions, Quizzes, and Exams are linked to the Gradebook and perform as anticipated.				
Grading schemas, point scales, and weighting methods are consistent throughout the course as defined in the syllabus.				
Discussion board settings meet the approved standards.				
Assignment settings meet departmental and institutional standards.				
Quizzes and Exams are accessible, have been tested, and perform as anticipated.				

Course Technology and Navigation Additional Notes/Comments:

Learner Support

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
Clear information on the institution's technical support services and access to these services is provided.				
The institution's accessibility policies and services or links to this information and how to access these services is provided.				
The institution's academic support services and other resources that help students succeed have been made accessible in the course.				
The institution's student support services (advising, financial aid, counseling, etc.) with their appropriate links and/or descriptors are readily available to the students.				
Learner is provided with policy and college contact information in case of any life event, such as accident, surgery, or other circumstance.				

Learner Support Additional Notes/Comments:

Accessibility

Item	Exceeds Expectations	Satisfactory	Needs Revision	Not Evident
Accessible technologies are employed in the course and guidance on obtaining accommodation is provided.				
Equivalent text-based alternatives for auditory and visual content are provided in the course.				
The course design facilitates readability and minimizes distractions. (Consistent fonts and other ADA compliant formatting)				
The use of assistive technologies (screen readers) is incorporated into the design of the course.				
Policies regarding emergency outages related to weather and unforeseen circumstances, and emergency options, are included as required reading at the onset of the course.				

Accessibility Additional Notes/Comments:

Overall Course Notes/Comments:

Course Sign Off:
Select one option indicating your response to this online course by putting your initials against the appropriate statement.

_____ I certify by signing below, that I have reviewed the components of this online course and have found them to be acceptable.

_____ I certify by signing below, that I have reviewed the components of this online course and have found significant areas for improvement that will need to be reviewed prior to course sign off.
.

_____

Printed Name and Title of Authorized Reviewer, Date

_____

Signature of Authorized Reviewer, Date

The completed and signed Online Course Design Review and Approval From indicates acceptance of the course, and initiates approval for faculty member to obtain compensation for course development. Changes in course requirements and/or program standards that occur after the signoff become the sole responsibility of Guam Community College.

A copy of this document will be rendered in PDF format and shared with the instructor as well as the Distance Education department and the Office of the Vice President of Academic Affairs.

_____   _____

 [Signature of Instructor]   [Date]

_____   _____

[Signature of Instructional Designer]   [Date]

_____   _____

[Signature of DE Director]   [Date]

_____   _____

[Signature of VP for Academic Affairs]   [Date]

Appendix 2: Alternative Instructional Equivalencies

Institutions use the Alternative Instructional Equivalence (AIE) to manage online classroom credit hour compliance. Institutions that have developed and maintained AIEs usually store individual AIE documents as spreadsheets within the respective departments. Often this information is maintained in a repository but not analyzed to determine overall institutional compliance nor is it used for assessing departmental or inter-departmental development of AIEs. Faculty members usually grapple with how to allocate time to certain online activities, and typically do not have an easily accessible resource to support their AIE allocation needs.

This AIE chart would:
   a. Support the instructional designer and faculty member in recording intended online course activities, course interactions, time on task for a given activity and the respective assessments associated with each activity.
   b. Provide a platform that the institutional research department can use to maintain an easily accessible record of course activities, and time-on-task.
   c. Record course instruction and affiliated activities as they align with pedagogical best practices as discussed Arthur Chickering.
   d. Provide clarity on faculty interactivity and student engagement in the online classroom.
   e. Provide insight on student to student, student to content and student to instructor interaction.

Sample AIE Calculation:

Activity	Activity Goal	Instruction Hour Equivalent	Total Time of Activity for Course in Hours	* Indicate Best Practice/s (BP) Met by Activity	Indicate Assessments Used	Indicate Type(s) of Interaction
Active Learning Strategies	To engage in professionally focused learning strategies that draw on the students professional work experience.	1 Active learning strategy = .5 hr		[ ] BP 1 [ ] BP 4 [ ] BP 2 [ ] BP 5 [ ] BP 3 [ ] BP 6 [ ] BP 7	[ ] Rubric [ ]Tests/Quizzes [ ] Graded Assignment	[ ] Student-student [ ] Student-instructor [ ] Student-content
Blogs, Journals, Logs	To use personal (authentic) writings to facilitate communication between the reader and the author.	Private Post = .5 hr Shared Post = 1 hr		[ ] BP 1 [ ] BP 4 [ ] BP 2 [ ] BP 5 [ ] BP 3 [ ] BP 6 [ ] BP 7	[ ] Rubric [ ]Tests/Quizzes [ ] Graded Assignment	[ ] Student-student [ ] Student-instructor [ ] Student-content
Every course must contain a minimum of 14 hours of instruction time for each credit. Course length does not affect instructional time. A 1 credit course requires 14 instructional hours, whether it is run in an accelerated format of 7-8 weeks or for the full term sure Total activity time; Instructional Hour Equivalent x # of times activity is offered →1.5 x 3 = 4.5 hours				**Course Credits =** **Total Instructional Hours =**		

Summary of Chickering's Best Practices are as follows:
1. Good practice encourages student-faculty contact. (BP1)
2. Good practice encourages cooperation among students (BP2)
3. Good practice encourages active learning (BP3)
4. Good practice provides prompt feedback (BP4)
5. Good practices emphasizes time on task (BP5)
6. Good practice communicates high expectations (BP6)
7. Good practice respects diverse talents and ways of learning (BP7)

Reference: IMPLEMENTING THE SEVEN PRINCIPLES: Technology as Lever by Arthur W. Chickering and Stephen C. Ehrmann

Appendix 3: Schematic of Moodle Navigation

ABC123 Online Course

General Information

- Announcements
- Course Support Forum
- Semester Calendar
- Resources for Academic Support
- Copyright Information

Course Resources

- ABC123 Syllabus
- Web Resources
- Website Links
- Unit Introduction Videos
- Library
- Online Communications Guidelines
  - Core Rules of Netiquette
- Instructions for Position Papers
- Instructions for Uploading Video

Welcome & Orientation

- Meet Your Instructor
- Orientation Activities
  - How to Use This Course Site
  - Class Introductions
  - Practice Assignment
  - Group project information

Appendix 4: Learning Management System (LMS) Comparisons and Recommendations

At present, Guam Community College (GCC) utilizes an internally hosted instance of Moodle 2.3. The information in this document was created to:

- Facilitate comparison between Moodle and other current LMS solutions;
- Recommend a course of action for GCC's LMS implementation;
- Provide an overview of the LMS review process in the event GCC wishes to investigate further.

This document has been developed to provide an overview of LMS options; once a determination is made about institutional needs, GCC would be best served to determine the level of responsibility for LMS service and support it would like to provide. An in-depth assessment of internal resources and capabilities as outlined in the capabilities assessments document should be used to guide vendor selection. , The vendor can then be contacted for LMS pricing and service comparison from various solutions. Note that it is not feasible to make an initial LMS comparison based on cost, as LMS providers offer a wide variety of hosting models and pricing structures crafted to suit an institution's individual needs. On one end of the spectrum is i**nternal hosting**, in which GCC's MIS staff would be fully responsible for server hosting, redundancy, failover, maintenance, LMS technical support, systems integration, and additional network and resource demands. On the other end of the spectrum is **external hosting**, where a third party vendor hosts a cloud instance of the LMS, and provides the majority of the above services. Once internal or external hosting is chosen, it is typically possible to migrate from one to the other depending on the technical requirements of the host provider. However, the migration process is often complicated, time-consuming, and expensive. For these reasons, Ellucian made a thorough assessment of GCC's internal hosting capabilities and recommends that GCC focus on investigating external hosting solutions as the MIS department neither has the capacity nor the resources to adequately support a fully hosted LMS within the college. In the event that GCC opts for internal LMS hosting, the cost of additional staff or third party support for internal hosting should be taken into consideration.

Moodle is one learning management system (LMS) of many presently available on the market. It should be noted that most LMS's offer very similar tools and features, and any could be used for a successful DE implementation. The factors that should be considered in addition to (and perhaps over and above) which specific LMS is chosen are the levels of support and hosting provided by individual vendors and the corresponding price points. This can be greatly impacted whether the chosen LMS is open source or proprietary. An expanded list of additional considerations can be found in Appendix 5.

Open Source LMS's

Open source technology is technology where the source code is "open", that is, the code is available to the public and free to be modified. Improvements can be made by developers and it can be spread or sold to the wider community. Some of the advantages of an open source LMS are:

- Open source LMS's are capable of internal or external hosting. If using an external host, the provider is responsible for maintaining and servicing the LMS, as well as providing support when problems occur.
- Because of the nature of Open Source LMS's, migration from internal to external hosting or vice versa is always an option.
- They can come at a lower cost than proprietary solutions. GCC can use an open source LMS indefinitely without paying set-up, activation, licensing, or subscription charges. The cost paid to open source hosting vendors is not for licensing the LMS, but rather for support and hosting services associated with an institutional LMS.

- As the code is widely available in open source LMS's, many developers read and examine the code, resulting in bugs being identified and fixed much faster than proprietary programs.
- Open source LMS's are fully flexible and customizable, so they can be designed in line with GCC's needs and branding.

Some of the disadvantages of using an open source LMS are:

- Open source software relies on its online community network to deliver learning support via forums and blogs. While there are massive, loyal and engaged online communities that users are turning to, this requires some basic knowledge and skill set from the user to understand feedback from online community for problem resolution purposes.
- Despite the fact that there is no cost for licensing, there is still the cost associated with either hiring internal staff to support the LMS or contracting a third party vendor for support.

The most widely used open source LMS's are Moodle, Sakai, and Canvas.

Proprietary LMS's

A proprietary LMS is exclusively owned by the provider, and offered to end users under the conditions of an End User License Agreement (EULA). Some of the advantages of using a proprietary LMS are:

- Service and support of the LMS are provided by a vendor that has a thorough working knowledge of their own product;
- Proprietary software providers offer ongoing support to users, a key consideration when users lack technical expertise;
- There is a certain reduction in the risk undertaken with proprietary software because users are working with companies that are viable, and people with intimate knowledge of the products and services being used should any questions arise.
- Very low demands on internal institutional support resources.

Some of the key disadvantages of using a proprietary LMS are:

- Lack of flexibility and options for hosting solutions;
- Higher cost;
- Reliance on vendor support for problem resolution, updates, integration issues, etc.

The most widely used proprietary LMS's are blackboard and Desire 2 Learn (D2L).

LMS Market Share as of 2013

Higher Education LMS Market Share for Institutional Adoption
Anglosphere institutions selecting LMS, adjusted by enrollment and recent selections

Key data from 2005 - 2009 from Campus Computing project http://www.campuscomputing.net, 2013 data from Edutechnica http://www.edutechnica.com

Phil Hill (@PhilOnEdTech)
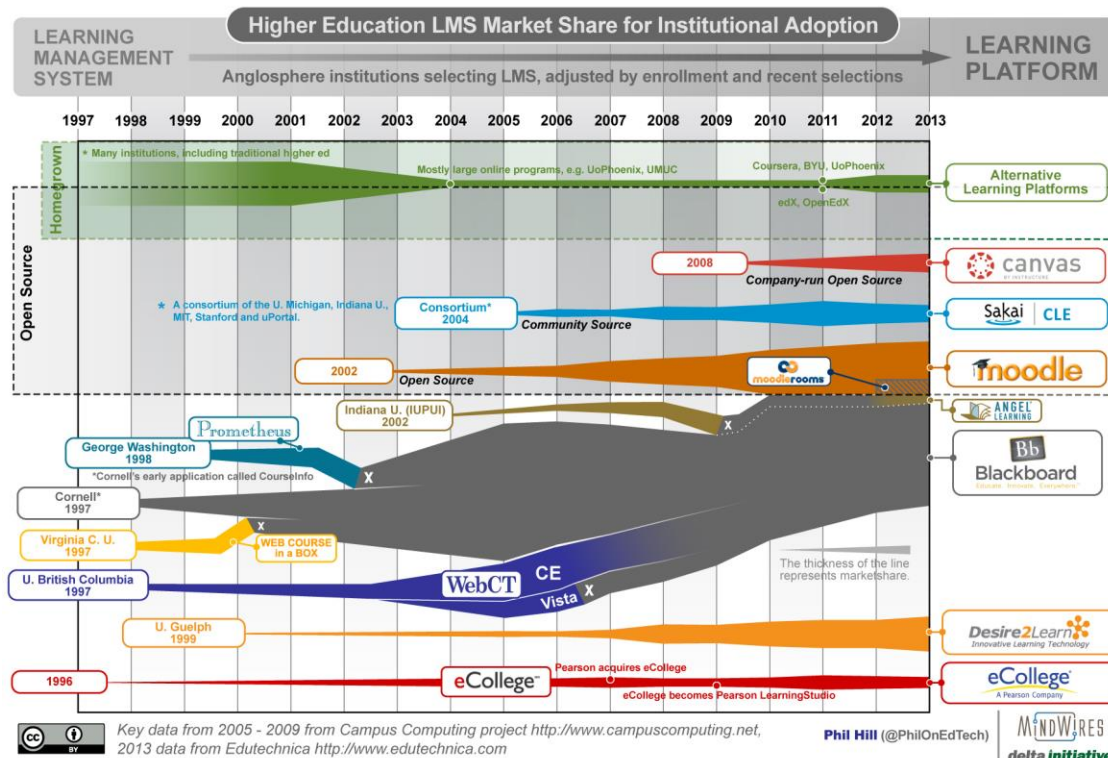
LMS Overviews

Open Source Hosted Solutions

Moodle

As the chart above demonstrates, MoodleRooms has the largest share of the Moodle hosting market. There are three other providers that are also certified Moodle Partners: Remote-learner, Web Anywhere, and Classroom Revolution (http://moodle.com/partners/). A Moodle Partner reinvests profits into Moodle development to ensure its long-term viability. Moodle's current implementation is 2.6. Moodle does not offer as many integrated tools natively that some other solutions do, but there are various plug-ins available that will provide that functionality. It is up to the hosted provider to select which plug-ins it is willing to support.

Sakai

Sakai holds a significantly smaller market share than Moodle, and there is no hosting provider who is dominant in the market. Sakai partners include the following providers: Longsight, Unicon, and Asahi Net International (https://sakaiproject.org/try-sakai-cle). Another Sakai provider with which Ellucian has partnered in the past is rSmart (http://www.rsmart.com/). Sakai's current LMS implementation is entitled CLE 2.9. Similar to Moodle, Sakai can support many common integrated tools.

GCC can investigate the free trials offered by Sakai affiliates for the sake of comparison (https://sakaiproject.org/node/2261).

Canvas

This is one of the newest LMS solutions to the market. As a result, Canvas brings a different approach to the LMS. They promote three key components of the system including a "Clean, Intuitive" interface. Canvas is built around the latest web development techniques to provide a modern user interface.

In addition, they promote a "Comprehensive feature set." They promote the fact that the system provides tools that an institution would typically have to pay more for (i.e. ePortfolios, multimedia, web conferencing, learning outcomes, etc.). A demo of Canvas is available (http://www.instructure.com/try-canvas).

Proprietary LMS Solutions

Blackboard Learn
Blackboard is the largest LMS provider in the world, and has aggressively purchased and absorbed its competition in recent years(as seen in the chart on page 5). Blackboard Learn offers a very "feature rich" native set of tools, although the addition of tools (such as web conferencing with Collaborate, analytics, and mobile versioning) also adds cost. Blackboard is also invested in MoodleRooms, having acquired the company in 2012. Blackboard can either be installed on institutional servers or hosted on vendor servers. Blackboard's current LMS is Learn 9.1. More information on Blackboard is available by contacting a representative (http://www.blackboard.com/Contact-Us/Contact-Form.aspx).

Desire2Learn
Desire2Learn, also referred to as D2L, is poised to compete with Blackboard and is steadily gaining traction in the market. Desire2Learn and Blackboard have both been around for 12-13 years and have grown a large user base over the past decade. Desire2Learn is still a smaller company than Blackboard but tends to focus heavily on their customer-base in making significant improvements and upgrades through each monthly fix and update. Like Blackboard, Desire2Learn can either be installed on institutional servers or hosted on vendor servers. This system also has the ability to integrate additional features including Learning Repositories, ePortfolios, Analytics, and Capture capability. D2L is based in Canada. A free trial account is available (http://www.desire2learn.com/try/).

Conclusion and Recommendations
Any one of these five LMS's—as well as several others not addressed—would adequately serve GCC's present DE needs while also allowing for future scalability.

GCC presently utilizes an internally hosted instance of Moodle. Due to institutional familiarity with Moodle and the intensive and time-consuming nature of an LMS review and search, GCC would be best served at this time to continue using the Moodle learning environment but to investigate hosted solution providers.

If, however, GCC wishes to further investigate other LMS's, the College Technology Committee should be tasked with first identifying the key needs an LMS must address for GCC based on Appendix 5, and then form a subcommittee consisting of all LMS stakeholders, including students, to demo instances of the top LMS providers—both open source and proprietary—to make an informed decision on the best solution for the college.

| 1.Analyze Needs | 2.Define Requirements | 3.Vet available products | 4.Evaluate options | 5.Select a product |

"Buying an LMS is not easy; just ask all the people and organizations who've tried (some more than once). You stand a much better chance for success and satisfaction with your product if you follow proven practices in evaluating and selecting an LMS." ~Steve Foreman in *Learning Solutions Magazine*

Appendix 5: Key LMS Features to Consider

- Level of technical support provided;
  - Vendor support
  - Active community support
- Availability/uptime;
- Plans for facilitating LMS updates;
- Redundancy;
- Scalability;
- Sandbox availability;
- File storage capacity and limitations;
- Design and branding options;
- Built-in tool capability, including:
  - Forums
  - Assignments
  - Lessons
  - Quizzes
  - Blogs
  - Wikis
- Integrated tools, such as:
  - ePortfolio
  - Web conferencing
  - Analytics
  - Streaming video
- Ease of data migration in case a different solution is chosen;
- Interface;
- Social learning tools;
- Accessibility and compliance;
- Integration with third-party tools;
- Email functionality;
- Security;
- Administrative monitoring;
- Availability of content libraries;
- Implementation and training;
- Mobile support;
- Cost/pricing plan structure.

Appendix 6 DE Implementation Plan Timeline

	SP Objectives	Target Years					Set Measures			Objective Owner(s)
		1	2	3	4	5	Target	Actual	Difference	
1.1a	**Virtual Student Support**	■	■							
1.1b	**Faculty and Staff Awareness program**	■	■							
1.1c	**Develop support services for faculty and students in the full range of DE courses**	■	■							
1.2a	**Advisor assignment**	■								
1.2b	**Advising management**		■	■						
1.2c	**Advisor training**		■							
1.3a	**New Online Program Market Analysis**	■								
1.3b	**Hybrid Program Development**		■	■						
1.3c	**Web-Enhanced Courses**	■	■	■						
1.3d	**DE Course Experience for GCC Students**				■	■				
1.3e	**Student Course Evaluations and Retention Survey Mechanisms**			■	■	■				
2.1a	**Learning Management System**	■								
2.1b	**Video Streaming**	■								
2.1c	**Funding Allocation and Grant Support for DE at GCC**	■	■	■	■	■				

	SP Objectives	Target Years					Set Measures			Objective Owner(s)
		1	2	3	4	5	Target	Actual	Difference	
2.1d	**Special Technology - Innovation Support**		█							
2.1e	**Mobile Learning Initiative**					█				
2.1f	**Classroom Technology Training**	█	█	█	█	█				
2.1g	**Classroom Technology Inventory**	█								
2.1h	**Classroom Technology Upgrades**	█	█							
2.1i	**Wireless Access to Support Mobile Learning**	█	█							
2.2a	**Amend DE Policy**	█								
2.2b	**Faculty Certification for Online Teaching**	█	█							
2.2c	**Professional Development Plans**	█	█	█	█	█				
2.2d	**Innovative Technologies in DE**	█	█	█	█	█				
2.3a	**Syllabus Template**	█								
2.3b	**Course Design Standards**	█	█	█						
2.3c	**Online Course Evaluations**	█	█	█	█	█				
3.1a	**BPM Revitalization**	█								
3.1b	**Academic Technology (AT)**		█	█						
3.1c	**Information Technology (MIS)**		█	█						
3.1d	**Helpdesk Services**	█	█	█	█	█				

	SP Objectives	Target Years					Set Measures			Objective Owner(s)
		1	2	3	4	5	Target	Actual	Difference	
3.1e	**Technical Support**									
3.1f	**Periodic Equipment Checks**									
3.1g	**Review of Helpdesk Process**									
3.1h	**Online Training Documentation and Training Videos**									
3.1i	**Faculty Support Alternatives**									
3.2a	**Determine Structure of DE Department**									
3.2b	**DE Policy**									
3.2c	**DE Standard Operating Procedures**									
3.2d	**College Technology Governance**									
3.2e	**DE Taskforce**									
3.3a	**Review DE Organizational Structure, Roles, and Responsibilities**									
3.3b	**Develop Shared Resources Model for Course Development (Course Guides)**									
3.3c	**Course Development Models**									
3.4a	**Online Access to Software Training**									
3.4b	**Administrative Technical Training**									

SP Objectives		Target Years					Set Measures			Objective Owner(s)
		1	2	3	4	5	Target	Actual	Difference	
3.4c	**Faculty and Staff**									
3.4d	**Course Evaluator Training**									
3.5a	**Establish Key Performance Indicators (KPI)**									
3.5b	**Service Management**									
3.5c	**Instructor pay-model**									
4.1a	**Establish Key Performance Indicators (KPI) for Marketing**									
4.1b	**DE Market Analysis**									
4.1c	**DE Marketing Plan**									
4.1d	**DE Marketing Working Group**									
4.1e	**Marketing Fulfillment Process**									
4.1f	**Utilization of Media by GCC**									