

TECHNOLOGY FOR HOMELAND SECURITY

Spring 2012
Syllabus – Hybrid



WARNING: DO NOT DISCLOSE ANY GOVERNMENT CLASSIFIED MATERIALS IN THIS COURSE. NO EXCEPTION! ONLY MATERIALS AVAILABLE TO THE PUBLIC WILL BE USED THROUGHOUT THE COURSE.

CREDIT: Technology for Homeland Security is one of the 12 courses comprising the Homeland Security Master's Degree curriculum. This version of the course has been developed by Richard Bergin and Robert Josefek for the Center for Homeland Defense and Security (CHDS) located at Naval Postgraduate School in Monterey, CA and CHDS partnering universities.

Course Name and Number: CJA 772 HSLD – “Technology for Homeland Security”

Course dates: 4/4/2011 – 6/6/2011

Time: 05:30-09:40 p.m., Selected Wednesdays (Hybrid) (see schedule on page 2)

Classroom: Room 207, Eiben Hall

Instructor Name: Jeffrey Ahn, MS

Instructor Contact Information

Office Phone: 808-230-4691 (cell) (Please leave a message if I do not answer your call right away. I will call you back). I am available from 4 p.m.-9 p.m. Hawaii Standard Time (HST) on most days, but I attempt to reserve Sunday for my family. On Saturdays, I tend to be online in the morning only. If these times are not convenient for you, please let me know. I will be happy to accommodate your schedule, if possible. I provide you with these times to make it easier to communicate with me, and not to limit our contact. I want you to know that, should you need to contact me outside these periods, you should not hesitate to do so. If or when you call my phone, please leave a message; however, I check our classroom almost every day.

For emergencies, when you are not able to gain access to messages on the eCollege, please send a message to my CUH e-mail address. In the event a third party needs to contact me, please direct them to my contact information listed under "facilitator information." No third party should use your login credentials to gain access to the classroom.

E-mail Address: Please use an e-mail function within eCollege first. jeffrey.ahn@adjunct.chaminade.edu (secondary) / theahn2003@gmail.com (emergency), use them only when you have problems with eCollege e-mail with prior telephonic approval from the instructor. (Please check my e-mail address spelling. Some students claimed they sent their assignments to my CUH e-mail address, but I found out later they misspelled my e-mail

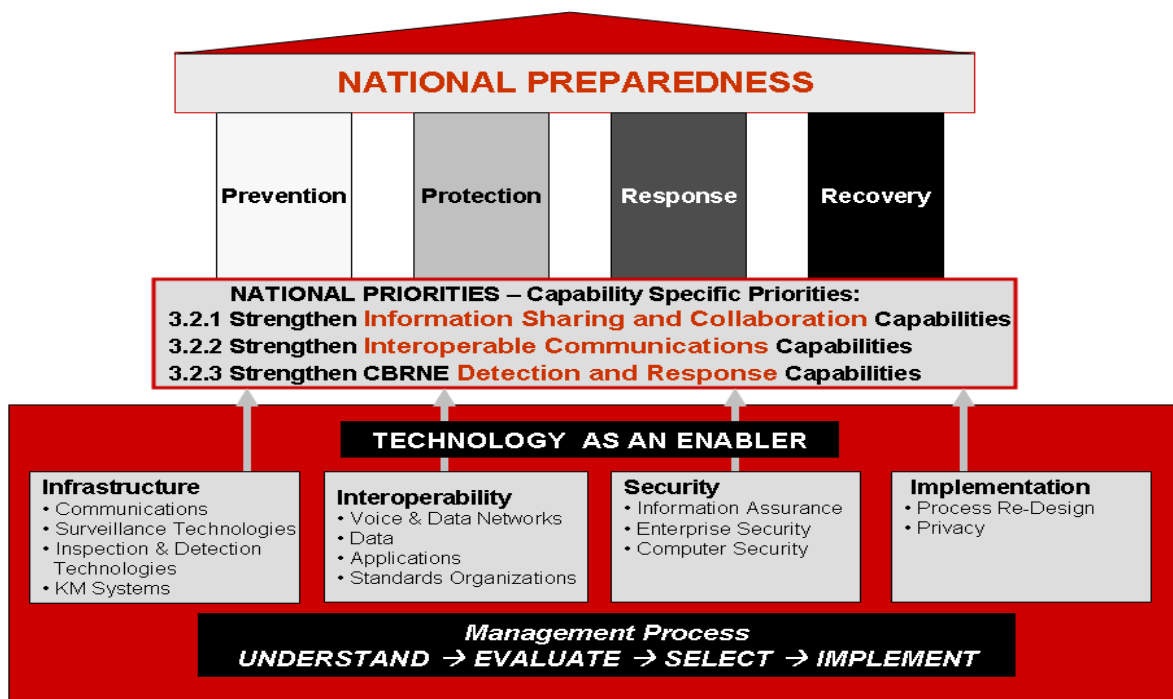
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address, especially my first name).

Course Information

Course Description: Leverage the use of technology to maximize the ability of federal, state, and local level authorities to prevent, protect against, respond to, and recover from major events. Provide an in-depth understanding of the four dimensions of technology: Infrastructure, Interoperability, Security, and Implementation. This knowledge will enable the Homeland Security (HLS) professional to effectively evaluate, select, and implement technology to facilitate and strengthen capability specific national priorities (as defined by Presidential Directive # 8) that, in turn, support the four pillars of national preparedness: Prevention, Protection, Response, and Recovery (see Figure 1).



(Figure 1 - Technology for Homeland Security)

Graded Areas	Possible Maximum Points
Attendance (20 points per meeting) Week 1 Week 3 Week 5 Week 8 Week 10	100
Article Review (10 points per article) Every Tuesday Except for Week 5 & 10	80
Case Study (see below for a completed breakdown)	100
Research Presentation (see below for a completed breakdown)	100

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Final Exam (written)	50
Aggregation	430

Student Learning Outcomes: Upon completion of this course students will demonstrate and understanding of:

- Understand and evaluate various strategies, governance structures, and data, communications and sensor standards used to facilitate interoperable communications and information sharing capabilities.
- Be able to evaluate information sharing and knowledge management technologies, such as database technology, data mining, link and content analysis, and Web 2.0 technologies used to facilitate information sharing and intelligence gathering among agencies.
- Be able to evaluate inspection, detection, and surveillance technologies, such as RFID, Sensor Networks, Biometrics, Radiation Detection, Chemical Detection, Bio Detection, UAVs, CCTV, Satellite Imagery and GIS and how they are used by the HLS community to gather information via electronic sources.
- Be able to leverage their knowledge of information assurance and enterprise technology implementation issues to better manage the risks associated with designing, building, implementing, and using technology enablers.
- Be able to conduct research on a particular genre of technology by selecting one or more capability-specific priority and applying a management process to understand, evaluate, and select a specific technology to facilitate the strengthening of that capability-specific priority.
- Capability-Specific Priorities:
 - (3.2.1) Information sharing and collaboration capabilities to enable effective prevention, protection, response, and recovery activities. (This may also include training)
 - (3.2.2) Interoperable communications capabilities to enable personnel from different disciplines and jurisdictions to communicate effectively during major events
 - (3.2.3) Chemical, biological, radiological, nuclear, and explosive (CBRNE) inspection and detection capabilities.

Prerequisites and Co-requisites: None.

Course Topics: In today's Information Age, HLS professionals and the agencies they manage are more dependent than ever on technology and information sharing to strengthen national preparedness. The need to share information through the use of interoperable technologies and to collect and synthesis data in real-time has become critical to our national security. This course provides HLS professionals with the requisite knowledge to understand, evaluate, select, and effectively implement technology within and between HLS organizations. This course provides a broad overview of the six dimensions of technology as related to HLS:

- Inspection, Detection, and Surveillance Systems: Human, Chemical, Biological, Radiological, Nuclear and Explosives Inspection and Detection technologies. Non-Intrusive Inspection and Detection Systems including Bio Sniffers, Unmanned Aerial Vehicles (UAV), Remote Video Surveillance Systems (RVSS), Satellite Imagery and Geographical Information Systems (GIS).
- Voice, Data and Sensor Interoperability: Strategy, Governance, Standards, Data structures, and Radio / Data / Sensor Communications.

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- Technology Implementation and Acceptance: Systems Development Life Cycle, System Implementation Methodologies, and Technology Acceptance Model
- Information Sharing and Knowledge Management: Database Technologies, Decision Support Systems, Collaborative Technologies, Data Mining Technologies (Predicative Mining, Link Analysis, Syndromic Surveillance, etc..), and National and Regional Information sharing Systems and emerging Web 2.0 Technologies.
- Information Assurance: Internet / Network – (Risk Assessment, Security Audits and Security Policies) Threats and Protection mechanisms. Students will also gain a perspective on the role of senior management and their role as change agents. They will learn how to recognize opportunities where the application of technology solutions can provide a strategic advantage, and therefore make a significant contribution to HLS.

Specific Course Requirements: None.

Textbooks, Supplementary Materials, Hardware and Software Requirements

Required Textbook: None.

Highly recommended materials:

1. APA Publications Manual, 6th Edition (5th printing). ISBN: 978-1-4338-0561-5 (APA format is required for all written assignments.)
2. Grammar Manual - The Gregg Reference Manual, 10th Edition, is the standard writing manual for this course. ISBN: 0-07-293653-3
3. Dictionary - Merriam-Webster Collegiate, 11th Edition, as identified as the standard spelling reference for APA journals and books. ISBN: 0-87779-809-5. Your assignments should not have any spelling errors. Review and check your works using the aforementioned dictionaries; and do not trust a dictionary in Microsoft Word ® or other applications alone.

Supplementary Materials: None.

Course Website address: <http://chaminade.ecollege.com>

Hardware Requirements: eCollege is accessible from most PCs and Macintosh computers with a reliable internet connection.

Software Requirements: You are required to submit writing assignments following the American Psychology Association (APA) format using various applications, such as Microsoft Word®; and present your research using presentation software, such as Microsoft PowerPoint®. You are not required to purchase these programs and use other applications; however, I will not grade your work if I cannot open or view them. I am using Microsoft Office. Please ensure you can access to an Adobe reader as well. You will need the Adobe reader to review my feedback and other correspondences.

Assessment and Grading

Grading Procedure: Letter grades are given as your final grade for this course. Grades are calculated from the student's attendance, class participation, weekly article reviews, presentations, case study, and research papers. The grades are interpreted as follows:

- A - Outstanding scholarship and an unusual degree of intellectual initiative.
- B - Superior work done in a consistent and intellectual manner.
- C - Average grade indicating a competent grasp of subject matter.
- D - Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work.
- F - Failure to grasp the minimum subject matter; no credit given.
- W - Withdrawal before published deadline (see your counselor or academic calendar for details).
- I* - Did not complete a small portion of the work or final examination due to circumstances beyond the student's control. This grade will not be given except under circumstances of extreme hardship (see CUH Student Handbook for details).

Grading Scale:

Score	Grade
91-100% of possible total points	A
81-90% of possible total points	B
71-80% of possible total points	C
61-70% of possible total points	D
51-60% of possible total points	F

Assignments and Participation Requirements

Academic Article Reviews (10 points each): A total of 8 article reviews from scholarly academic journals will be required. You are required to turn in one article review on Tuesday, except for Weeks 5 and 10. These reviews must be directly related to areas of technology concerning Homeland Security and Defense. The article review must be based on articles appearing in scholarly peer reviewed academic journals. Publications such as Time, Newsweek, People Magazine, etc. do not qualify. Review a list of possible scholarly peer review journals that qualify below.

- ✓ These must be reviews of articles appearing in a scholarly academic journal.
- ✓ They must be current articles. *Articles published before 2007 are not acceptable.*
- ✓ The articles must be based on empirical research conducted by the authors.
- ✓ **NOTE:** To avoid unintentional plagiarism, you are required to submit a copy of your researched article when you submit any writing assignment. If you quoted directly from your article or reference(s), directly quoted materials will be highlighted.

They must be typed and double-spaced with 1 inch margins and in Time New Roman 12 point type. The length will depend on the article you choose (minimum 1000 and maximum 1500 words). The review must contain the following elements:

You must use these heading in accordance with APA standards for each sections of your article review. Not doing so will significantly reduce your score.

- ✓ The accurate bibliographic reference to the article in accordance with the *APA standards*.
- ✓ The main technology issue, idea, thesis, lesson-learned, research hypothesis, or research question stated by the author(s).
- ✓ The definition of any terms the author uses, if any.
- ✓ The research method used or the important facts the author(s) uses to support the idea, thesis, hypothesis, or research question.
- ✓ Conclusion(s) the author(s) reach.
- ✓ Your analysis of the article, including any examples of lesson-learned bias or faulty reasoning on the part of the author(s). In this section you should concentrate on applying the ideas and concepts we have discussed in class or from the reading which provide a framework for analyzing ethical issues. You are not required to have a cover page for this assignment.

NOTE: Your article review must be submitted using "Dropbox" in eCollege no later than Thursdays and Sundays (MST). Late submission will not be accepted unless a prior approval is obtained from me.

NOTE:

- Your required readings will be posted in eCollege as soon as you confirm your attendance to the course.
- These reading materials cannot be used as your article review materials.
- The required reading materials can be used in both case study and research paper; however, the required reading materials will not be counted towards the required number of articles.
- Articles you used in the case study can be used; however, they will not be counted towards the required number of articles.

Case Study Paper (100 points)(Due: Week 5): If you are currently using or implementing a technology to enable a homeland security process, you have the option of writing up a case that addresses a problem, or set of issues, surrounding the usage or implementation of that technology. Select a department, command, or organization you are currently working with, which is using or implementing technology to strengthen any of the following: Information Sharing and Collaboration Capabilities, Interoperable Communications Capabilities, and/or CBRNE Detection and Response Capabilities. Technologies may include (but are not limited to): VEOCs, Portals, Fusion Centers, Virtual Communities, Sensor Webs, RFID, CCTV, and Mobile Voice and Data Communications. Consider a problem or set of issues facing your organization that have resulted from the use or implementation of the technology. You will identify and analyze relevant facts and data, and then provide a resolution to the problem. Your case study should include the following elements (see next page):

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Element	Description / Evaluation Criteria
Introduction: Problem or Issue Statement	<p>This section should state the problem or set of issues being confronted - You may omit the firm's history in the introduction, unless the history illuminates the issue that now must be confronted.</p> <p>Evaluation Criteria Problem(s) or issue(s) is/are clearly stated. Statement anticipates the analysis. Argument is left to the analysis section.</p> <p>Possible Points = 20</p>
Analysis:	<p>Identify the relevant facts and data, and then reason through the information, showing how the data is important. Include all relevant theories/frameworks/etc. Most importantly, what does your analysis reveal?</p> <p>Evaluation Criteria Use of Case Data: Narrative – analysis shows comprehension of case and makes references to key facts. Pictures or diagrams – analysis interprets and integrates this data Arguments advanced in the analysis are sufficiently based on concrete data. Logical Development: The analysis develops a perspective on the case; there is a unifying idea or focus. The analysis contains a linear construction of the argument. Case facts (data) are well integrated into the analysis to support argument. The ideas and arguments presented are consistent. Contradictory facts are stated and interpreted.</p> <p>Possible Points = 60</p>
Conclusion	<p>Your concluding section is a resolution of the case. It ought to follow from your reasoning presented in the Analysis section, and it ought to resolve, or address, the problem(s) or issue(s) stated in the Introduction.</p> <p>Evaluation Criteria Provide a resolution or sum up the analysis to bring the case to a conclusion. Provide a clear course of action or end to the case.</p> <p>Possible Points = 20</p> <p>Analysis must be based upon your research. You are required to list at a minimum of seven different articles. The aforementioned article review guidelines are applied here.</p>

NOTE: Refer to Page 41-60, APA Publication Manual for an example format of your case study. Required reading articles cannot be used as your references.

- ✓ **NOTE:** To avoid unintentional plagiarism, you are required to submit a copy of the article if you quoted directly from it. When submitted, directly quoted materials will be highlighted.

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Electronic version of the article will be accepted as long as quoted materials are clearly highlighted.

This paper shall contain, at a minimum, the following:

1. A cover page – 1 page
2. Abstract (review APA manual for a correct format for this) – 1 page
3. Table of contents – 1 page
4. Body – 15 pages (maximum 25 pages)
5. References – 1 pages
 - i. List only those used in the writing.
 - ii A minimum of ten (NOTE: A minimum of three online references).

The following criteria will be used in grading the written assignments:

Criteria	100%	75%	50%	0%
Length -				
Contents (60% max)				
Purpose	12	8	6	0
Content	12	8	6	0
Organization	12	8	6	0
Feel	12	8	6	0
Tone	12	8	6	0
Mechanics (25% max)				
Sentence structure	5	3.8	2.5	0
Word choice	5	3.8	2.5	0
Use of APA	10	7.5	5	0
Grammar, Spelling, etc.	5	3.8	2.5	0
Research (15% max)				
Use of References	7.5	5.6	3.8	0
Quality of References	7.5	5.6	3.8	0
Use of Directed Quotation				
Scored -				

Feedback: Each week, scores, or comments on assignment and quiz by within **7** days of when they were submitted will be delivered to you via eCollege. Please check your dropbox and grade book as frequent as possible. You must have a version of Adobe Reader to review my comments on your assignments. Please review my comments to avoid repeating same errors for better results.

Research Presentation (100 points)(Week 10): From the weekly assignments, choose one specific area in Homeland Security and conduct research to understand, evaluate, and select a technology that enables the strengthening of Capability-Specific Priorities. You should conduct a literature review on a genre of technology that may be used to enable your stated thesis or purpose. Explain what your selected genre of technology does and how it works at

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the macro-level, and develop a list of possible solutions that are currently on the market. You should discuss potential advantages and disadvantages of the various technical solutions discovered during your literature review in terms of Interoperability, security, Implementation Issues, and Others. Critical thinking is encouraged and be creative. Based on your evaluation of existing technology solutions, select one and discuss potential implementation issues and recommendations.

Requirement for the presentation:

- Cover slide (name, title)
- Agenda
- Body (depends on your topic, it can be between 10-15 slides, but they can be longer).
- Conclusion
- Summary
- References (of course academic resources) - Reference submission requirement: To avoid unintentional plagiarism, you are required to submit a copy of the article if you quoted directly from them. When submitted, directly quoted materials will be highlighted. Electronic version of the article will be accepted as long as quoted materials are clearly highlighted.
- **Note section of each slide requires narration or scripts as I am reading your slide and present it to the leadership in your absence.**
- Professional appearance of slides and contents are a must (This brief is so important, because you might be terminated or promoted after this brief)

NOTE: Your research presentation must be submitted using "Dropbox" in eCollege **no later than 3 June 2012 (MST)**. There is no make-up for this assignment. You must present your material in Week 10.

The following criteria will be used in grading the written assignments:

Criteria	100%	75%	50%	0%
Length -				
Contents (40% max)				
Purpose	10			
Organization	10			
Inconsistency between note and slide	10			
Tone	10			
Presentation (50% max)				
Too many words (busy slide)	10			
Word choice	10			
Too many animation/inconsistency	10			
Too many graphics/inconsistency	10			
Spelling errors	10			
Research (10% max)				

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Use of References	5			
Quality of References	5			
Use of Directed Quotation				
Total	100	0	0	0
Scored	100			

PUNCTUALITY/CONSISTENCY: A key to succeed in an asynchronous learning environment is to keep up with your required tasks and submit your work in a timely manner. Visit your class in eCollege as frequently as possible to learn how to navigate in eCollege; keep abreast of course announcement; address technical problems immediately, just to list a few as tips.

Course Ground Rules

ACADEMIC HONESTY: Students are responsible for promoting academic honesty at this university by not participating in or facilitating others' participation in any act of academic dishonesty, and by reporting incidences of academic dishonesty (such as theft of tests, records, and other confidential materials, altering grades, and/or plagiarism) to their instructors. Questions of academic dishonesty are reviewed first by the instructor, followed by the Director, who supervises the faculty teaching the courses.

PLAGIARISM: Chaminade University policies regarding academic honesty are explicit. The standards as clearly stated in the Academic Catalog will be strictly enforced. There is no excuse for using others work and turning it in as your own, and absolutely no value in irreparably damaging your reputation and your class grade.

LATE ASSIGNMENTS: Assignments/Quizzes must be posted and completed by Sundays, due dates (MST) using eCollege. Otherwise loss of all credit will occur. Any late submission will not be accepted unless you provide me with supporting documents for my review and approval. Early submission is highly encouraged.

PUNCTUALITY/CONSISTENCY: A key to succeed in an asynchronous learning environment is to keep up with your required tasks and submit your work in a timely manner. Visit your class in eCollege as frequently as possible to learn how to navigate in eCollege; keep abreast of course announcement; address technical problems immediately, check gradebook for updated scores, just to list a few as tips.

Guidelines for Communications (observe course netiquette at all times)

E-mail:

- Use the Chaminade e-mail account provided.
- Always include a subject line.
- Remember without facial expressions some comments may be taken the wrong way. Be careful in wording your e-mails. Use of emoticons might be helpful in some cases.
- Use standard fonts.

- Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless necessary to complete an assignment or other communication.

Discussion Posting (not applicable to this course; however, you should review and use them in your activities):

- Review the discussion threads thoroughly before entering the discussion.
- Try to maintain threads by using the "Reply" button rather starting a new topic.
- Do not make insulting or inflammatory statements to other members of the discussion group. Be respectful of other's ideas.
- Be patient and read the comments of others thoroughly before entering your remarks.
- Be cooperative with group leaders in completing assigned tasks.
- Be positive and constructive in group discussions.
- Respond in a thoughtful and timely manner.

Library

Visit your library at (www.chaminade.edu/library, at a minimum for your article review and research resources. *The following are not acceptable as scholarly academic journals for purposes of article reviews and research paper and you will receive no points for your work if you use them in the assignments:*

Newspapers

News Magazines (Newsweek, Time, People)

Trade Magazines

FBI Law Enforcement Bulletin

Corrections Today

Police Chief

Prisons Today

On the Line

Law and Order

American Jails

Wikipedia.com (your paper will be scored zero if it contains anything from any pedia.com).

Students With Disabilities

It is the student's responsibility to self-identify with the Director of Personal Counseling in order to receive accommodations. Only those students with appropriate documentation will receive services. Contact the Director of Personal Counseling at (808) 739-4603 or e-mail: jyasuhar@chaminade.edu.

Technical Support

For technical questions: contact the Chaminade eCollege helpdesk at: helpdesk@chaminade.ecollege.com, or call toll free at: (866) 647-0654.

eCollege Account Support

Call 808-739-8327 or e-mail jnakason@chaminade.edu.

Hints for taking online course

- Visit your classroom in eCollege as frequently as possible to see if there is anything new or last minute changes.
- Avoid turning in weekly required works last minute.
- Using Outlook® or an appointment reminder from you mobile phone or PC/Mac, if you have, to track your activities.
- Visit your gradebook in eCollege so that you know where you are and what you need to do to improve or maintain your grade.
- Check your work before you submit them. You will save many points from avoidable mistakes, particularly APA format
- Ask me questions before, not after.

MARIANIST EDUCATIONAL VALUES

The five characteristics of a Marianist Education are:

1. Educate for Formation in Faith - Catholic Universities affirm an intricate relationship between reason and faith. As important as discursive and logical formulations and critical thinking are, they are not able to capture all that can be and ought to be learned. Intellectual rigor coupled with respectful humility provides a more profound preparation for both career and life. Intellectual rigor characterizes the pursuit of all that can be learned. Respectful humility reminds people of faith that they need to learn from those who are of other faiths and cultures, as well as from those who may have no religious faith at all.

2. Provide an Excellent Education - In the Marianist approach to education, "excellence" includes the whole person, not just the technician or rhetorician. Marianist universities educate whole persons, developing their physical, psychological, intellectual, moral, spiritual and social qualities. Faculty and students attend to fundamental moral attitudes, develop their personal talents and acquire skills that will help them learn all their lives. The Marianist approach to education links theory and practice, liberal and professional education. Our age has been deeply shaped by science and technology. Most recently, information and educational technologies have changed the way faculty and students research and teach. At Marianist Universities, two goals are pursued simultaneously: an appropriate use of information technology for learning, and the enhancement of interaction between students and teachers. As Catholic, Marianist Universities seek to embrace diverse peoples and understand diverse cultures, convinced that ultimately, when such people come together, one of the highest purposes of education is realized: a human community that respects every individual within it.

3. Educate in Family Spirit - Known for their strong sense of community, Marianists have traditionally spoken of this sense as "family spirit." Marianist educational experience fosters the development of a community characterized by a sense of family spirit that accepts each person with loving respect, and draws everyone in the university into the challenge of community building. Family spirit also enables Marianist universities to challenge their students, faculty and staff to excellence and maturity, because the acceptance and love of a community gives its members the courage to risk failure and the joy of sharing success.

4. Educate for Service, Justice, and Peace - The Marianist approach to higher education is deeply committed to the common good. The intellectual life itself is undertaken as a form of service in the interest of justice and peace, and the university curriculum is designed to connect the classroom with the wider world. In addition, Marianist universities extend a special concern for the poor and marginalized and promote the dignity, rights and responsibilities of all people.

5. Educate for Adaptation to Change - In the midst of rapid social and technological change, Marianist universities readily adapt and change their methods and structures so that the wisdom of their educational philosophy and spirituality may be transmitted even more fully. "New times call for new methods," Father Chaminade often repeated. The Marianist university faces the future confidently, on the one hand knowing that it draws on a rich educational philosophy, and on the other fully aware for that philosophy to remain vibrant in changing times, adaptations need to be made.

Selected from Characteristics of Marianist Universities: A Resource Paper, Published in 1999 by Chaminade University of Honolulu, St. Mary's University and University of Dayton. Each of these characteristics is integrated, to varying degrees, in this course.
