Instructional Design Plan

for

EDCI 575

Purdue University Calumet
Learning Systems Design
Professor Anastasia Trekles

Spring 2012

Alex B. Criswell

Executive Summary

This instructional Design (ID) Plan has been introduced to Professor Anastasia Trekles

EDCI 575 class with the use of the Challenger Learning Center (CLC) of Northwest Indiana

facilities for the learning module. This learning module will cover a portion of a "mission"

(learning mission) for the purpose of testing the integration of distance learning module. The

learning module covered will be the ISO-3 (Isolation Three) Station learning module. The goal is

to have this content available for review by the director of the CLC no later than May 15, 2012.

This design plan includes the following:

- Problem Statement
- Course Goals and Expectations (Objectives)
- Learner Analysis
- Task Analysis
- Instructional Planning Grid
- Course Map
  - Flowchart
- Assessment Plan
- Appendices: (Please note some appendices are in landscape mode)
  - Appendix A-CLC Information
  - Appendix B-Course Navigation Guide
  - Appendix C-Course Syllabus
  - Appendix D-Objective Grid
  - Appendix E-Course Map Grid
  - Appendix F-Works Cited

Information about the CLC of Northwest Indiana is available is Appendix A.

Problem Statement

With the rise in online education, the CLC wishes to integrate their learning modules into several distance learning course to attract more educational institutions to utilize their facility or prospective online courses. While many schools in the Northwest Indiana area have a contract with the CLC; the facility wishes to reach schools beyond immediate area, or offer an alternative to schools that are not able to travel to the CLC. According to Ural (2007), distance learning systems are being used with traditional education systems due to the higher demand for education. Many educators or higher education institutions are now using distance education due to the transformation of current technology as well as the increase in demand for independent learning. According to Simonson et. al. (2012), several options are available for distance learning instruction:

- Online Courses-Most or all instructional content is delivered online.

- Hybrid Courses-Content is delivered partially online and partially delivered in the classroom.

- Web-facilitated courses-Content is partially or barely delivered online and mostly in the classroom setting.

The best option for this ID plan would be a complete online course; however, the CLC or classroom educators could also utilize the hybrid course to extend the learning environment beyond the CLC facility or home-classroom.

Please note: Citation information is available in Appendix F.

ID Plan Goal

The overall goal of this ID Plan is to integrate distance learning into the CLC learning modules;

however, for this learning module the following goal will be proposed:

ISO Module participants will review the proper procedure(s) to complete the ISO-3 Module and demonstrate the skills obtained with minimally 80% accuracy in the post-assessment test and in the post-discussion after completion of the entire ISO-3 module.

Learner Analysis

The topic of this seminar is over the ISO-3 module based on the learning modules of the

Challenger Learning Center (CLC) of Northwest Indiana. The ISO-3 Module is part of the three

station section of the isolation sector of the CLC mission. In the ISO-3 station, students

measure radiation level from oxygen sensors and report the findings to their ISO-3 partner in

mission control. Students of different grade levels are welcome as the CLC has learning

modules based on specific grade levels. An overview of this module will be described in the

syllabus.

Learning Module Information:

The ISO-3 Learning Module will be taught over a four-week seminar. There will be a

total of seven learning modules where students will complete assessments or assignments to

evaluate the information learned from each of the learning modules.

Target Audience:

The CLC Target audience ranges from kindergarten to high school grade levels, as well as higher education and corporate businesses. The number of participants required for a CLC learning module (mission) is reflected in the table below.

Minimum	12
Recommended	16
Maximum	34

For the purpose of this ID plan and "pilot project," this learning module will be based for high school students who are enrolled in grades 9-12 and undergraduate college students.

Task Analysis

Description

This task analysis will be used to assist the student in accessing the Learning Management System (LMS). A course navigation summary is also provided to assist the student in LMS Course navigation.

Accessing the LMS:

Accessing Blackboard (Current 'Pilot' Course)

    i. Open your web browser
        i. Go to Http://blackboard.purdue.edu/
    ii. Click on "Calumet Open Campus" Tab
        i. Enter your login information and click "OK."
            1. Purdue University Career Account and Passphrase
    iii. Under the "My eCourses" screen, click on the desired course.
        i. 'Pilot' Course is "Alex Criswell."

Course Navigation Guide

Refer to the "Course Navigation Guide" in Appendix B.

Instructional Objectives and Strategies

Instructional Objective:

ISO Module participants will review the proper procedure(s) to complete the ISO-3 Module and demonstrate the skills obtained with minimally 80% accuracy in the post-assessment test and in the post-discussion after completion of the entire ISO-3 module.

Course Objectives:

1. Student will complete a course introduction assessment to ensure knowledge retention of the syllabus and the blackboard vista tutorial.
2. Student will review course-supplied materials whether in print or media for the purpose of retaining the information for an evaluation at the end of each module.
3. Participant will correctly operate the joysticks to move the oxygen sensors near the Geiger counter for sensor readings with 100% accuracy. Student will operate the joysticks until all sensor readings until all readings are obtained.
4. Participant will effectively communicate with their partner via chat/email model or discussion board a minimum of at least three times with no errors
5. Participant will be able to communicate with the COMM advisor in order to send/receive messages to central command.
6. Students will record a video demonstration of joystick usage following the specified criterion.
7. Participant will express their knowledge by completing a post-assessment exam with minimally 80% accuracy.
8. Participant will convey their findings and information in a follow-up discussion on the learning management system prior to the completion of the learning module.
9. Student will word process a paper based on the criterion provided in the syllabus.

Refer to *Appendix D* for the Instructional Objectives Grid, which gives more information pertaining to the objectives and how they will be achieved.

Course Map and Assessment Plan

Course Map

Refer to Appendix E for the Course Map Grid.

Assessment Plan

See next page.

Assessment Plan

Task	Module Number	Objective Number(s)	Grading Format (Quiz, Rubric, Numeric, or Pass/No Pass)	Grade Type	Task Points	Blackboard Tool Utilized (Assessment, Discussion Board, Dropbox)	Due Date: (All due dates will be at the end of the module or week at midnight [23:59] unless otherwise specified)
Introduction Post	One	Four	NA	NA	0	Discussion Board	04/15/2012: Week One
Course Agreement***	One	One, Two, Five	Quiz	Points	5	Assessment	04/15/2012: Week One
Course Introduction Assessment***	One	One, Two, Five	Quiz	Points	5	Assessment	04/15/2012: Week One
Communicating on the ISO-3 Partner Discussion Board and COMM Advisor Discussion Board	Two	Four	Rubric	Points	10	ISO-3 Partner Discussion Board COMM Advisor Discussion Board	04/15/2012: Week One
Radiation/Geiger Counter Quiz	Three	Two, Five	Quiz	Points	20	Assessment	04/22/2012: Week Two
Joystick Operation &	Four	Two, Five	Quiz	Points	20	Assessment	04/22/2012:

Geiger Counter Usage Assessment							Week Two
Joystick Video Demonstration	Four	Six	Rubric	Points	30	Assignment Dropbox	04/22/2012: Week Two
Calculate Radiation Levels	Five	Two	Pass/No Pass	Points	*	Assignment Dropbox, ISO-3 Partner Discussion Board	04/29/2012: Week Three
Radiation Level Posting	Five	Four	Numeric	Points	10	ISO-3 Partner Discussion Board	04/29/2012: Week Three
Review ISO-3 Emergency Situation Procedures	Six	Two	Pass/No Pass	Points	**	None	04/29/2012: Week Three
Emergency Procedures Posting	Six	Four	Rubric	Points	10	ISO-3 Partner Discussion Boards	04/29/2012: Week Three
Explain emergency procedures	Six	Nine	Rubric	Points	10	Assignment Dropbox	04/29/2012: Week Three
Reflections Discussion Board Posting	Seven	Eight	Rubric	Points	30	Reflections Discussion Board	05/06/2012: Week Four
Reflections Paper	Seven	Nine	Rubric	Points	150	Assignment Dropbox	05/06/2012: Week Four

*Points are included with the "ISO-3 Partner Discussion Board (Module Five)" score.

**Points are included with the "ISO-3 Partner Discussion Board (Module Six)" score.

***NOTICE: You MUST complete the "Course Agreement" AND "Course Introduction" Assessments prior to beginning the instructional modules.

Appendix A

Challenger Learning Center of Northwest Indiana
Information

Information on the Challenger Learning Center:

The mission of the CLC is "to create an exciting learning environment that promotes the continued exploration of the Earth and space sciences through innovative programs that challenge how teachers educate, students learn, and business operation. We seek to foster in the community a long-term interest in science, technology, engineering, and math."

The vision is "to merge the power of a student's imagination with the excitement of discovery."

According to the CLC website, the center has had more than 170,000 students and adults participate in their learning modules. The CLC is part of a network of 48 international non-profit learning centers that wish to educate the mission of the Challenger 51-L crew and the first teacher in space, Christa McAuliffe.

The Challenger Learning Center of Northwest Indiana is located at the south end of the Purdue University Calumet Campus in Hammond, Indiana. It is accessible from the "South Entrance" off 173rd Street. Proceed south towards the Fitness & Recreation Center, Riley Learning Center, and Hospitality and Tourism Management Building, formerly the "Calumet Conference Center." The CLC is located in the back of the HTM Building and is not accessible through the HTM building, and visitors are advised to enter the CLC through the R-3 or R-4 labeled door(s).
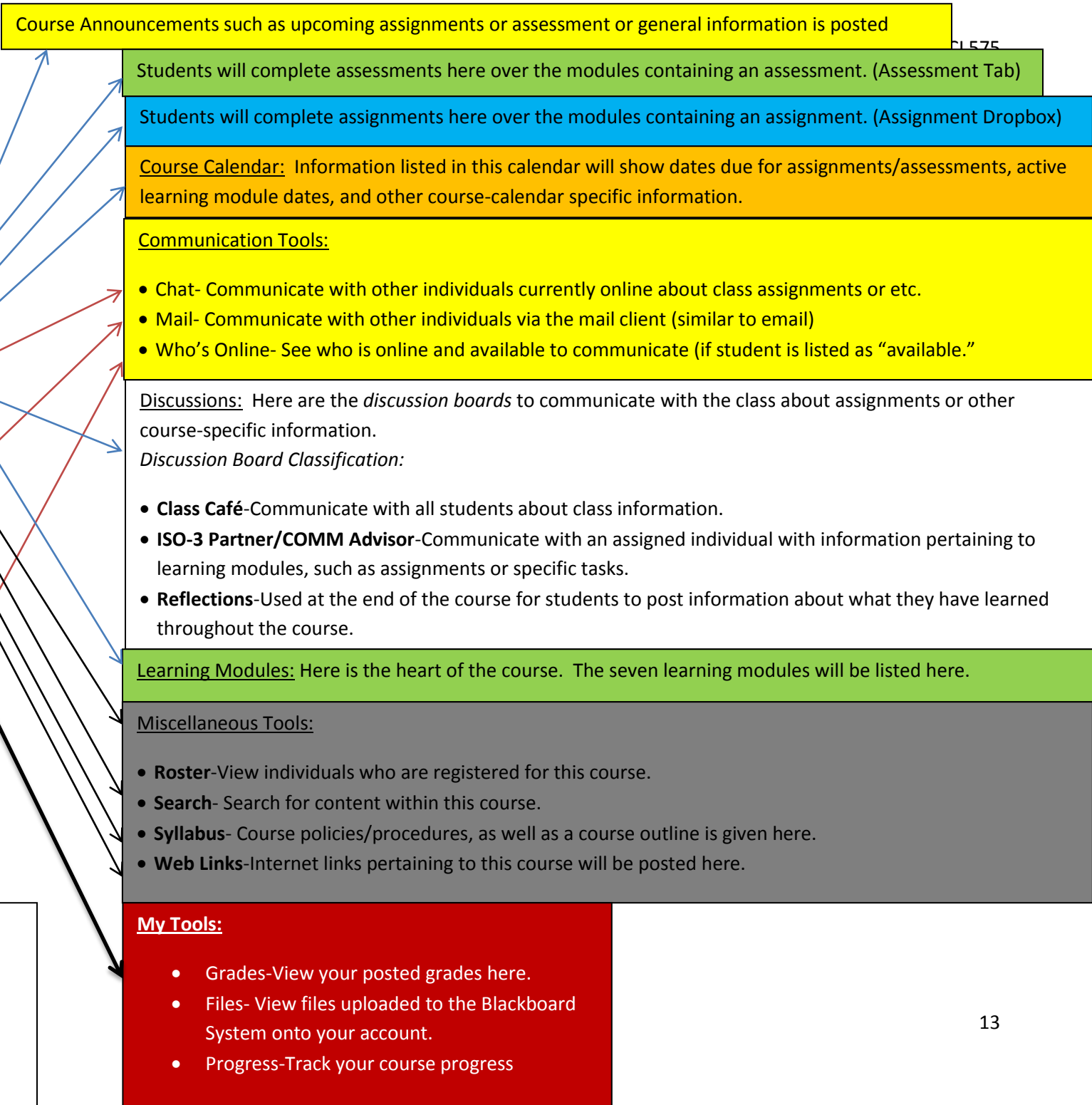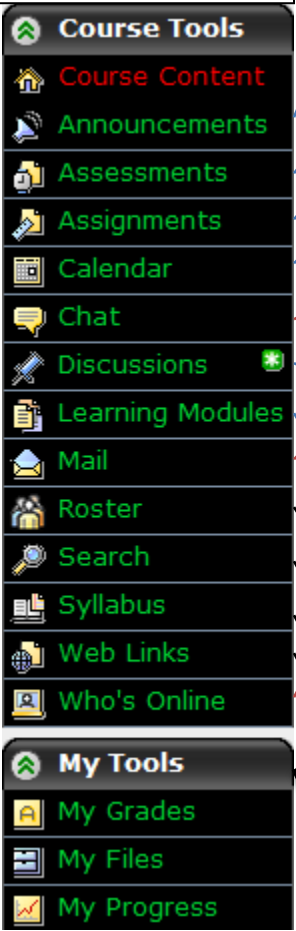
For further information about the CLC, please visit: Http://www.clcnwi.com

For a Purdue University Calumet campus map, please visit: Http://www.purduecal.edu/ and a campus map is available on the website. It will be available on the main page or in the "Future/Prospective Students" section of the website.

Appendix B

Course Navigation Guide

Course Announcements such as upcoming assignments or assessment or general information is posted

CL575

Students will complete assessments here over the modules containing an assessment. (Assessment Tab)

Students will complete assignments here over the modules containing an assignment. (Assignment Dropbox)

Course Calendar: Information listed in this calendar will show dates due for assignments/assessments, active learning module dates, and other course-calendar specific information.

Communication Tools:

- Chat- Communicate with other individuals currently online about class assignments or etc.
- Mail- Communicate with other individuals via the mail client (similar to email)
- Who's Online- See who is online and available to communicate (if student is listed as "available."

Discussions: Here are the *discussion boards* to communicate with the class about assignments or other course-specific information.
Discussion Board Classification:

- **Class Café**-Communicate with all students about class information.
- **ISO-3 Partner/COMM Advisor**-Communicate with an assigned individual with information pertaining to learning modules, such as assignments or specific tasks.
- **Reflections**-Used at the end of the course for students to post information about what they have learned throughout the course.

Learning Modules: Here is the heart of the course. The seven learning modules will be listed here.

Miscellaneous Tools:

- **Roster**-View individuals who are registered for this course.
- **Search**- Search for content within this course.
- **Syllabus**- Course policies/procedures, as well as a course outline is given here.
- **Web Links**-Internet links pertaining to this course will be posted here.

My Tools:

- Grades-View your posted grades here.
- Files- View files uploaded to the Blackboard System onto your account.
- Progress-Track your course progress

Challenger Learning Center

ISO-3 (Isolation 3) Learning Module

Blackboard Vista-Purdue University Calumet

Appendix C

Course Syllabus

PURDUE UNIVERSITY CALUMET	Challenger Learning Center
Spring 2012	**ISO-3 (Isolation 3) Mission Module**

Instructor: Alex B. Criswell

Primary Office: HTMB 195 (HTM Office)

Phone:

(219) 989-2340/HTM Office

(219) 210-9257 Cell/Main Contact # (SMS Capable)

Email: alex.criswell@purduecal.edu

Office hours: In HTMB 116 from 8:30am-1:30pm at the Coffee Kiosk (The Spoon); other times are available by appointment

Text Information: No text book given; Materials given within the course.

Course Prerequisite:

- A PC or Mac with high-speed internet access.
  - o Dial-up is permitted; however, it is strongly discouraged for use when taking assessments as the assessments will be timed.
- Microsoft Office 2007 or higher (or a similar form of open-source software is permitted as long as it saves in the Office format of .doc/.docx, .xls/.xslx, etc.).
  - o Office 2003 is permitted, but the user is encouraged to upgrade to 2007 or higher, and is strongly encouraged to install a compatibility pack in order to view 2007 or higher documents as they will not open without this compatibility software).
- Compatible software is required to view the Blackboard Learning Management System (LMS). Please visit http://blackboard.purdue.edu/ and click on "Browser Check" to ensure that your computer and software is compatible with the LMS. If your browser check does not pass, follow the instructions given within the browser check window to ensure your system is compatible with the LMS.

- Video camera (media recording device)
  - Cell phone recordings may be permitted as long as the audio/video quality is sufficient.
    - Examples of unacceptable video quality:
      - Low volume
      - Loud background noise
      - Lighting is not of good quality, and the viewer cannot see the video or demonstration
      - Video is distorted or blurry.
      - Video file is not compatible
        - Please refer to the list stated in this syllabus.

Course Description: The ISO-3 Module covers the Isolation Three Sector of the Challenger Learning Center (CLC) Mission Modules. The Isolation Station consists of three stations within the actual mission. This module will completed over a period of four weeks.

Course Learning Objectives:

1. Student will complete a course introduction assessment to ensure knowledge retention of the syllabus and the blackboard vista tutorial.
2. Student will review course-supplied materials whether in print or media for the purpose of retaining the information for an evaluation at the end of each module.
3. Participant will correctly operate the joysticks to move the oxygen sensors near the Geiger counter for sensor readings with 100% accuracy. Student will operate the joysticks until all sensor readings until all readings are obtained.
4. Participant will effectively communicate with their partner via chat/email model or discussion board a minimum of at least three times with no errors.
5. Participant will be able to communicate with the COMM advisor in order to send/receive messages to central command.
6. Students will record a video demonstration of joystick usage following the specified criterion.
7. Participant will express their knowledge by completing a post-assessment exam with minimally 80% accuracy.
8. Participant will convey their findings and information in a follow up discussion on the learning management system prior to the completion of the learning module.
9. Student will word process a paper based on the criterion provided in the syllabus.

Requirements: While online learning offers the benefit of not attending a traditional class, it still requires your participation and dedication. It will require you to be self-motivated and an independent learner. Success in this class will require you to read assigned chapters on a timely basis (which is outlined for you), complete assignments, take quizzes and take tests in a timely fashion. All work is due as stated in the syllabus. Anything submitted after the due date will not be accepted. No make-ups on assessments (exams, tests, or quizzes) and assignments. An incomplete grade request requires an adequate reason for your inability to complete the course.

Procedures: This is a very straightforward class. After reading the information within the learning module, you will be evaluated on the information given. Depending on the module, you may need to complete an assessment, paper, or create a video. You will be given adequate notice on the amount of time you will have for each evaluation. Although it is an on-line learning class, your opinions about the related subjects will not be disregarded. Therefore, you will have the opportunities to express your thoughts and opinions on the community discussion board.

Academic Integrity Policy: Students are expected to embrace Academic Honesty. This means all work is to be their own and not someone else's. If cheating, plagiarism or stealing another person's work is detected, the student will receive a failing grade for the course. Repeated instances will require a referral to the Office of the Dean of Students for an enrollment sanction (see Purdue University's Student Handbook). "Ethics are an integral part of being a student and a professional. Academic honesty is the hallmark of this University. Therefore, Purdue University does not tolerate academic dishonesty in any form.

Academic Honor Code: I understand that academic dishonesty will not be tolerated at Purdue University Calumet. I am here to learn. Through learning, I will strive to become a better person and a more valuable contributor to society. I understand that dishonesty in the classroom, through cheating, plagiarism or other dishonest acts, which defeats this purpose and disgraces the mission and quality of a Purdue University Calumet education. Therefore I make the following pledge: In accordance with the Honor Code, I will not engage in dishonesty in my academic activities, and I will not tolerate such dishonesty by other students.

Students with Disabilities: If you are a student with a documented disability who will require academic/class accommodations in this course, please register with the Assistant Director, Disabled Student Development Services, in the Office of Disability Resources, located in the Student Union and Library Building (SUL), Room 341, on the Hammond campus. Phone numbers: 219-989-2455, 219-989-2454 (voice/TTY), or 219-989-2920. If you register and are eligible for academic/class accommodations because you have a documented disability that will

impact your work in this class, please schedule an appointment with me as soon as possible to discuss your needs. In accordance with the Americans with Disabilities Act (ADA) all qualified students enrolled in this course are entitled to "reasonable accommodations."

Non Discrimination: The University and this instructor do not discriminate on the basis of race, religion, color, sex, age, national origin, disability status, sexual orientation, or veteran status.

Civility Code: Purdue University Calumet supports the principles of freedom of expression for both faculty and students. The University respects the rights of faculty to teach and students to learn. Maintenance of these rights requires class conditions that do not impede the learning process. Disruptive behavior will not be tolerated. An individual engaging in such behavior may be subject to disciplinary action.

Student Expectations: Students are expected to comply with University regulations regarding civility, attendance/participation, and appropriate class behavior.

Emergency Preparedness: PUC has an aggressive program to prepare the campus for emergencies. It is important that all students understand how to help themselves during an emergency. Please refer to the Emergency Preparedness Guide posted in all offices, classrooms, labs, lounges and meeting rooms. You can also find the emergency preparedness guide online at www.purduecal.edu/emergency for detailed instructions for responding to specific emergency situations and for additional emergency information. Please be prepared.

Citation Information: Students will provide all in-text citations and bibliographies/works cited in APA Sixth Edition format. Please visit the Purdue OWL (http://owl.english.purdue.edu.) website for further information on proper APA citations.

Course Grading System:

Grading Components:	Points	Course Grade	Point Range
Discussions	60	A	300-250
Assessments	50	B	249-200
Papers	160	C	199-150
Video Demonstration	30	D	149-100
Total Points	300	F	< or equal to 99

Notice: A "C" (2.0) or above is required for course credit in order to complete the CLC course module.

CLC ISO-3 Module Outline:

Week I/ Module I

- Review Blackboard Video Tutorial
- Review syllabus
- Direct any questions to instructor by the blackboard email tool or community discussion board.
- Complete Module I Assessment AND Course Agreement Assessment (5 pts each)

Week I/ Module II

- Review information on:
  - o Radiation
  - o Geiger Counters
- Complete Module II Assessment (20 pts)

Week II/ Module III

- Review information on electronic messaging within the mission
- Learn about COMM advisor communication
    - Verbal and non-verbal communication skills will be demonstrated or acknowledged by student.
- Post on the ISO-3 Partner Discussion Board (10 pts)

Week II/ Module IV

- Review Joystick operation instructions
    - Complete assessment on joystick operations (20 pts)
- Record a video demonstration on how to operate joysticks (30 pts)

Week III/ Module V

- Review information on statistics
    - Calculate statistical data based on information learned.
- Report radiation average levels
    - Post on ISO-3 Partner Discussion Board (10 pts)

Week III/ Module VI

- Review procedures concerning the ISO-3 module and radiation levels.
    - Communicate necessary information to appropriate   individuals/channels (10 pts)
        - COMM advisor>Mission Control
        - ISO-3 Partner Discussion Board
- Explains procedures that must be completed in an ISO-3 emergency situation
    - Explain procedures in a word processed summary (10 pts)

Week IV/ Module VII

- Communicate experiences with classmates on the "Reflections" discussion board. (30 pts)
    - o Likes/Dislikes, Changes/Recommendations, and what you have learned.
- Reflections Paper (150 pts)
    - o Complete a paper based on what you have learned and why you feel there is significance to the ISO-3 station on the mission module.

Community Discussion Board:

The community discussion board will be utilized by the classmates to discuss class assignments and other information. This discussion board will not be used for submission of assignments.

ISO-3 Partner Discussion Board:

Each student will have an ISO-3 partner to communicate with on this discussion board. Regardless that you will not be communicating live with the student, you will assume to role of being on the spacecraft AND mission control. For instance: If your partner supplies you with the radiation levels, you will calculate the averages based on their findings and report it back to them. You will also do the same for your partner.

Joystick Operation Video Demonstration:

While the student will not able to actually operate the robotic arm at the CLC, they will record a video on how to operate the joysticks. The student will not need to go to the CLC to record this video, as they can use any joystick (whether single or dual unit) to record the video. This could include a joystick at home or at an arcade (as an example). The student will demonstrate how to operate the joystick in the video, with the following criterion:

- Opening/Closing the claw
- Rotating the arm
- Moving the arm
- Pressing the top buttons

Criterion:

- Introduction
    - o Introduce yourself, course information (Name and Number), and semester.
- State your purpose for this video demonstration
- Demonstrate operations of the joysticks.
    - o Include which direction you are turning (or button pushed) to indicate what the robotic arm would do if you performed that maneuver at the actual CLC mission module.
- Conclusion
    - o Verbally state the conclusion of your presentation as to why the operation of the joysticks is crucial to this module/mission station and what they exactly do on the actual CLC mission/module.

Please NOTE:

The video must be recorded in the following formats:

(File Type) {Compatible Video Player}

- .3g2 (3GPP2 Multimedia File) {Apple Quicktime Player}
    - o http://www.apple.com/quicktime/
- .3gp (3GPP Multimedia File) {Apple Quicktime Player}
    - o http://www.apple.com/quicktime/
- .avi (Audio Video Interleave File) {Windows Media Player}
    - o http://windows.microsoft.com/en-US/windows/products/windows-media-player/
- .mp4 (MPEG-4 File) {Windows Media Player}
    - o http://windows.microsoft.com/en-US/windows/products/windows-media-player/
- .mpeg (MPEG File) {Windows Media Player}
    - o http://windows.microsoft.com/en-US/windows/products/windows-media-player/
- .mov (Quicktime Media File) {Apple Quicktime Player}
    - o http://www.apple.com/quicktime/
- .wmv (Windows Media File) {Windows Media Player}
    - o http://windows.microsoft.com/en-US/windows/products/windows-media-player/
- .rm (Real Media File) {Realplayer}
    - o http://www.real.com/

Papers:

ISO-3 Emergency Summarization:

The student will provide a summary of what to do in the ISO-3 emergency situation in a Word Document. The summary shall be no more than 250 words; and must include all necessary steps or precautions in the emergency situation.

This includes the following (but is not limited to):

- Which joystick to move the upper or lower arm.
- Which joystick to move the device in the specific direction desired.
- Which button to push to operate the claw (opening or closing)

Reflections Paper:

The student will type a paper at the end of this learning module reflecting on what they have learned and the significance of the ISO-3 station within the CLC mission module. The paper shall be submitted in a Word or PDF document with 1" margins, 12-pt Arial Font, and double-spaced. The paper shall be approximately 500-750 words with at least three scholarly sources (books, journals, etc.). Your paper shall include an introduction, body, and conclusion. The introduction shall include information about the CLC and the ISO-3 module. The body shall include information you have learned throughout this course.

Things to consider within the body your paper:

- Significance of the Geiger Counter
- Radiation: The proper levels within the spacecraft and why it is dangerous if these levels are exceeded
- Why communication is important within the spacecraft and mission control
- Why the joystick operation is crucial to the ISO-3 station

The conclusion section shall include what information you have learned from this course, and how you feel it can be applied in your own life; whether in personal experiences or how you have, or perhaps *can*, utilize it in your future education. This paper should be word processed with APA citations.

(Please note: Assessment Plan and Course Map will be included in this section of the syllabus for students—Current items are not included as they are in other sections of this ID Plan)

Appendix D

Objective Grid

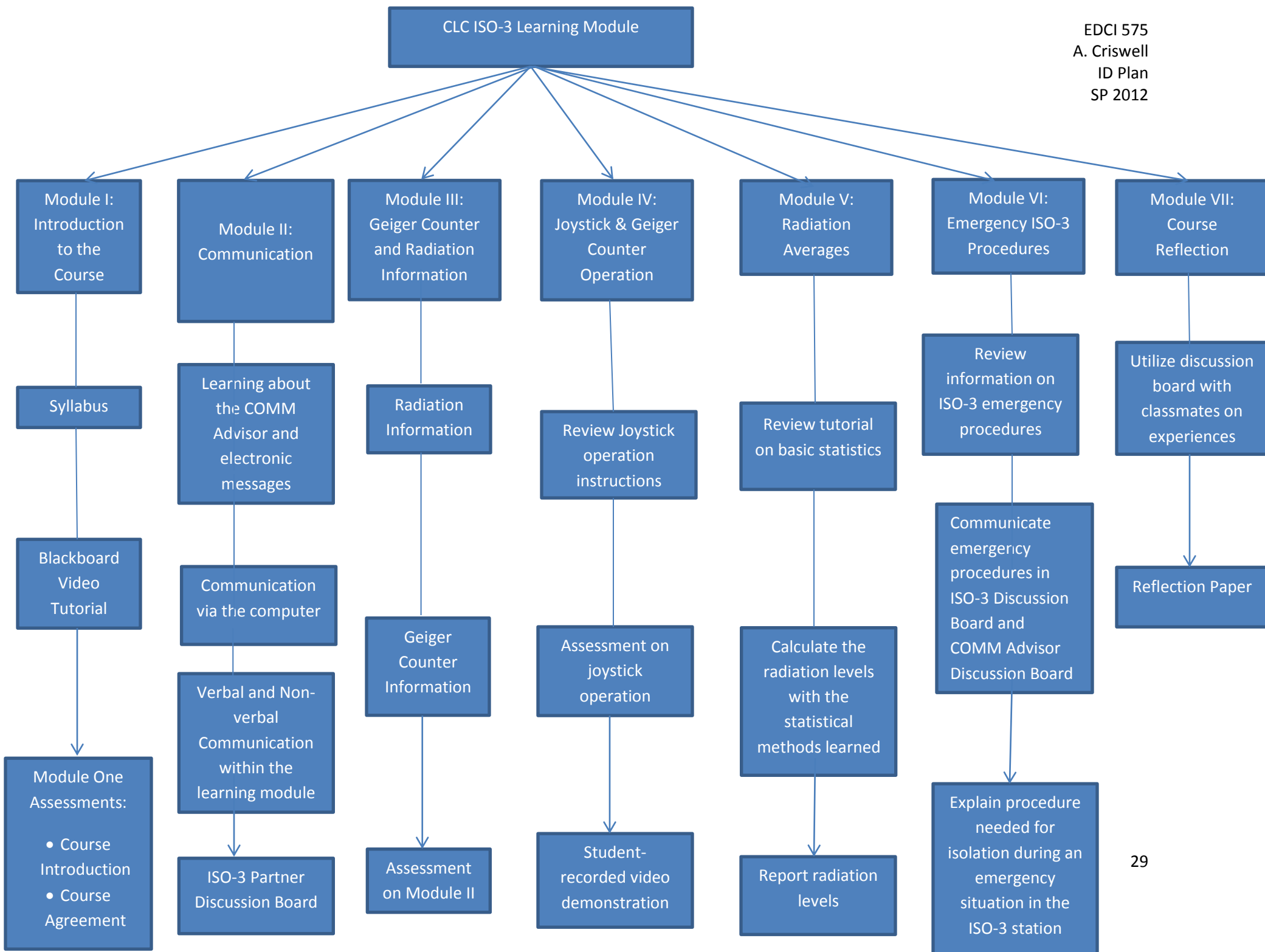|		INSTRUCTIONAL STRATEGY		
		ISO Module participants will review the proper procedure(s) to complete the ISO-3 Module and demonstrate the skills obtained with minimally 80% accuracy in the post-assessment test and in the post-discussion after completion of the entire ISO-3 module.		
Tasks	**Instructional Objectives**	**Initial Presentation Strategy**	**Generative Learning Strategy**	**Assessment Item(s)**
List basic tasks in instructional sequence	Use 4-part ABCD form	What the instructor does	What the learners do	How will you know they have accomplished the objective?
1 Course Introduction	Student will complete a course introduction assessment to ensure knowledge retention of the syllabus and the blackboard vista tutorial	• Provides blackboard tutorial and syllabus • Create an assessment based on the tutorial and syllabus.	• Read the syllabus to understand course policies and information as well as the course outline.	Student will complete an assessment and will be required to receive a 100% score before completing the next module.
2 Information Retention	Student will review course-supplied materials whether in print or media for the purpose of retaining the information for an evaluation at the end of	• Provides information necessary for each learning module. • Provides examples or demonstrations, where appropriate.	• Students will review information in preparation for an evaluation (such as assessment or assignment) over each module.	Student will complete the assessment, assignment, or other evaluation tool as required by the syllabus.

	each module.			
3 Joystick and Geiger Counter Operation	Participant will correctly operate the joysticks to move the oxygen sensors near the Geiger counter for sensor readings with 100% accuracy. Student will operate the joysticks until all sensor readings until all readings are obtained.	• Explains reason for joystick operation • Demonstrates operation of joysticks. • Reviews with individual's on the number of readings to take.	• Student will verbalize the reasoning for joystick operation. • Student will operate joysticks. • Student will write down the number of specified readings.	Participant will be able to operate joysticks to measure sensor readings accurately.
4 Partner Communication	Participant will effectively communicate with their partner via chat/email model or discussion board a minimum of at least three times with no errors	• Instructor will demonstrate computer operation. • Instructor will account for the reasoning of the chat module.	• Student will operate computer and chat module. • Student will recall the reasoning for the chat module.	Participant will send/receive messages via the computer chat/email or discussion post.
5 COMM Advisor Communication	Participant will be able to communicate with the COMM advisor in order to send/receive messages to central command.	• Instructor will show the need of communicating with the specified advisor. • Instructor will provide examples on verbal and non-verbal confirmations of messages.	• Student will understand the need for communicating with the specified advisor. • Student will exhibit the proper examples of verbal and non-verbal confirmation of messages. • Students will respond to the COMM advisor and provide appropriate signals when	Participant will be able to verbally or non-verbally confirm with the COMM director on messages sent/received.

			receiving messages.	
6 Video Demonstration	Students will record a video demonstration of joystick usage following the specified criterion.	• Instructor will specify file format required for the video. • Instructor will provide a demonstration video example.	• Student will record the video in the proper format.	Student will record the demonstration video based on the specified criteria.
7 Assessment Exam	Participant will express their knowledge by completing a post-assessment exam with minimally 80% accuracy.	• Instructor will design an assessment based on the teaching module.	• Student will complete an assessment based on the teaching module.	Participant will be measured on the tasks learned.
8 Follow-up Discussion	Participant will be able to convey their findings and information in a follow up discussion on the learning management system prior to the completion of the learning module.	• Conveys examples on what information should be reflected.	• Students will express their experiences in the discussion board with examples.	Participant will be able to share their perspective on the learning module and information learned from it.
9 Word Processed Paper(s)	Student will word process a paper based on the criterion provided in the syllabus.	• Specify criterion for the paper in the syllabus and blackboard.	• Student will word process their final paper based on criterion given in the syllabus.	Student will submit word processed document in the assignment drop box on Blackboard.

Appendix E

Course Map Grid

CLC ISO-3 Learning Module

Module I: Introduction to the Course
- Syllabus
- Blackboard Video Tutorial
- Module One Assessments:
  - Course Introduction
  - Course Agreement

Module II: Communication
- Learning about the COMM Advisor and electronic messages
- Communication via the computer
- Verbal and Non-verbal Communication within the learning module
- ISO-3 Partner Discussion Board

Module III: Geiger Counter and Radiation Information
- Radiation Information
- Geiger Counter Information
- Assessment on Module II

Module IV: Joystick & Geiger Counter Operation
- Review Joystick operation instructions
- Assessment on joystick operation
- Student-recorded video demonstration

Module V: Radiation Averages
- Review tutorial on basic statistics
- Calculate the radiation levels with the statistical methods learned
- Report radiation levels

Module VI: Emergency ISO-3 Procedures
- Review information on ISO-3 emergency procedures
- Communicate emergency procedures in ISO-3 Discussion Board and COMM Advisor Discussion Board
- Explain procedure needed for isolation during an emergency situation in the ISO-3 station

Module VII: Course Reflection
- Utilize discussion board with classmates on experiences
- Reflection Paper

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Appendix F

Works Cited

Works Cited

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2009). *Teaching and Learning at a Distance.* Boston: Allyn & Bacon, a division of Pearson Education.

Ural, O. (2007). Attidues of Graduate Students toward Distance Education, Educational Technologies, and Independent Learning. *Turkish Online Journal of Distance Education (TOJDE), 8*(4), 34-43.