INSTRUCTIONAL METHODOLOGY

DOL Engineering Technology Grant for Eastern Iowa Community College District
THE BLONG MODEL OF INSTRUCTION

- The Blong Technology Center (BTC) is equipped with hands on electronic, hydraulic, mechanical, and process control labs.

- Students take their classes on their own time during BTC hours. There is no specific time in which students are required to be in class.

- In a self-paced mode of instruction, students login online through the ICCOC website to access instructions on how to complete their courses.

- Instructors are available in the labs for questions and assistance with lab work.
Non-Credit Students are able to swap from non-credit to credit.

Credit Degree Seekers and students wanting to transfer to another school. Associates Degrees and 2+2 Programs, Certificates, 1 Year Diplomas.

Non-Credit Students are able to swap from non-credit to credit.

Business/Industry Journeymen & Local Industry. Some companies offer raises to employees for taking courses.
Students login to the ICCOC Learning Management System (LMS) which gives them instructions on how to complete the Modules for each class.

Currently, students are required to go to the computer lab located at the BTC to view the videos and simulations. **This is a less than ideal situation.** In addition, the videos and simulations are in many cases outdated and need to be revised.

The instructor is present in the lab and is there to answer questions and approve their lab work.

Currently, **the Final Exam is a proctored exam** that requires the student to come into take with by hand.
WORKING WITHIN “THE BOX”

• Our goal is to work with the EICC and it’s faculty - not against it.

• Improve instruction without disrupting the flow of the program and current systems in place.

• Making things more efficient for students and faculty is a priority.
ISSUES (STUDENT SIDE)

• Inefficient instructional flow. Course objectives need to be aligned with course content.
  - eCollege only presents instructions on what students are to do inside of the BTC. Instructions are confusing.
  - Students are required to come into the computer lab to watch videos. (Learning activities should be embedded into the online experience).
  - A couple of students expressed their disinterest in the current videos.

• Students can take quizzes online, but the final exam is proctored with paper and pencil. More on this later.

• For hands on labs, students have to seek out the binder for the lab and then begin (lab worksheets should be included online so students can view what they need to do prior to going into the lab as well as pull it up on their mobile devices as they are doing the lab).

• Remediation activities are vacant.
ISSUES (INSTRUCTOR SIDE)

- Could reduce administrative time spent on some activities.
  - Proctored exams currently are paper and pencil. You could still proctor an exam and put it online so that grading is automatic rather than manual.
  - Examguard and BioSig

- Overall lack of instructional flow in the online portion.
  - **Hands-on Labs appear to be fine, however they have not been observed in great detail.**
Course Audit

• Each course will be audited individually.
• Ensure objectives are aligned with the learning activities and assessment activities.

Design Learning & Remediation Activities

• Chapter Readings and Videos will be used to create interactive learning activities that will ultimately replace the outdated videos and eliminate any licensing issues. Length of and redundancy of content will be reduced so students get quality effective information.
• Remediation activities may be developed based on the course objectives which align with chapter readings and learning activities.
• A storyboard for each module/learning activity will be created and used internally for development.

SME/Instructor Approvals

• To keep instructors involved in the process and to ensure the activities to be developed are accurate, we need their input and approval during the storyboarding process BEFORE it gets sent to our 3D graphic designer.
• Most modules will contain a learning activity with either video, drag/drop interactions, 3D exploded view graphics, and other mixed media.
**4. Develop Sim/ Learning Activities**

- After Instructor input/approval of the storyboard learning activity, it gets sent to the 3D developer and multimedia developer for development.
- Any narration/scripting is also done during this process by our voice over talent.
- Upon completion of the learning activity, we will get final approval from the instructor.

**5. Assemble Course in LMS**

- After module learning activity has been approved, it can be assembled and put into eCollege.
- Other learning activities such as quizzes, tests, chapter readings, etc. will also be addressed at this time.

**6. Finalization/Rollout**

- Once all modules have been revised, it's time for the final audit of the course.
- Any revisions will be made at this time before making the course live.
PROPOSED REVISIONS
Each module will present a key concept or main point from the chapter readings to replace the current videos which are long and contain redundant information. These concepts will be interactive/simulated and will be short but instructionally effective (3-5 minutes per module).
3D MODELING / EXPLODED VIEWS / SIMULATIONS
HANDS ON LAB EXERCISES (PORTABLE)

- Students will be able to access their hands on labs on their portable devices instead of having to find the physical “binder” located in the labs.
• If online testing (cheating) is a concern to faculty, we propose getting the tests at least in a digital format where they are graded automatically inside of the LMS.

• Currently students are required to take a pencil and paper test that has to be manually graded.

• Students will still be required to come into the BTC to take the exam in a proctored environment but the exam will be online.
WHAT YOU HAVE TO DO

• Meet with Lucidway to discuss the course

• Identify the “Key Concepts” for each module so we can develop the simulations/video or graphics to illustrate the concept

• Approve the course modules/simulations as we progress through the course revisions.

• Total time estimation is around 15-20 hours per course.
Industry Needs

Workers

EICC Training

Curriculum Test Pilot

Iowa Community Colleges that will use the curriculum

Engineering Technology Curriculum Tracks

Option 1 Automation
Option 2 Electro/Mech
Option 3 Process Control

Curriculum Design

Web Design
ID Model
Instructional Design
Instructional Development
Prototype/Approval
Deployment
Evaluation/Revise

Develop informational site
Custom to be developed
Module Template
Hybrid Designs
Instructional Simulations
SCORM Packaging
Seek approval
Deploy to LMS
Check effectiveness

Lucidway e-learning group