

APPRAISER QUALIFICATIONS BOARD



THE APPRAISAL FOUNDATION

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Appraiser Qualifications Board

Requirements for Gaining an “Equivalency Rating” for Distance Education Delivery Systems for the 2018-2019 USPAP Courses

Contents

I. Executive Summary	3
II. Course Design	4
Learning Methodology & Process	4
Content Validity	5
Ensuring Students Meet Mandated Course Time Requirements	5
Course Engagement and Interactivity	6
Interactivity and Module Assessments	7
Pre- and Post-Course Assessments	7
IDECC Approval	8
Student-Instructor Interaction	8
Primary Method	8
Secondary Method.....	9
Hosting the Courses Using an Equivalent Learning Management System (LMS)	9
III. Course Implementation	10
Course Components	10
Modules	10
Menu.....	10
Modes	10
Module Composition, Delivery & Completion	11
Module Elements	11
Passes	11
Mastery Criteria	11
Mastery Process	12
Module Interface	13
Time Records	14

I. Executive Summary

This document provides an overview and top-level specification of the required features and functionality for any Learning Management System (LMS) used to deliver the 2018-2019 USPAP Courses via distance learning, and more particularly for asynchronous internet courses. These requirements do not apply to synchronous delivery methods.

Courses offered via synchronous delivery methods are eligible to earn an equivalency rating. Synchronous distance education occurs when an instructor and students interact in different places but at the same time. Synchronous and asynchronous distance education courses must be certified by the International Distance Education Certification Center (IDECC) prior to being considered for an equivalency rating.

The Appraiser Qualifications Board (AQB) and the Appraisal Standards Board (ASB) have developed exams that must be used by education providers for the *15-Hour USPAP Course* and in states that require an exam with the *7-Hour USPAP Update Course*. Additionally, if an education provider chooses to develop a synchronous *7-Hour USPAP Update Course*, the course must include a final, end-of-course proctored exam. Equivalent USPAP providers must use the exams developed by the AQB/ASB.

The functional overview does not define the inner workings of the LMS; nor does it include the specification on how the system functions should be implemented. Instead, it focuses on what students will experience and observe when interacting with the system.

For any third party desiring to build and offer the 2018-2019 USPAP Courses in a distance learning methodology, they will have to clearly demonstrate that their system performs at an equivalent level. Initial review of any provider’s delivery system will be conducted by IDECC for equivalency in Instructional Design, Learning Methodology, and Functional Delivery of a distance learning course.

The Functional Specifications remain unchanged from the 2016-2017 USPAP cycle.

Gaining an equivalency rating by any primary provider for the USPAP Course(s) will be a determination made by the AQB.

II. Course Design

Learning Methodology & Process

Distance education is defined by the International Distance Education Certification Center (IDECC) as “courses taught where the student and instructor are separated by distance and in some cases time.” The LMS used to deliver the 2018-2019 USPAP Courses via distance learning presents the material to be learned, provides adequate explanation to ensure that the student understands what is being presented, and requires that the student demonstrate his/her understanding through active participation in the learning process. The learning process emphasizes two primary characteristics:

1. Teaching to mastery and fluency
2. Dynamic control of the learning process

The LMS is mastery and fluency based. Mastery means that a student has learned the material on a particular topic to a specific criterion level. Fluency means that the student has learned the material well enough that answers to questions, or other appropriate actions, can be provided quickly, indicating greater "fluency" with the material. Mastery is evidenced by the ability to answer questions correctly about the subject material. Fluency is evidenced by the ability to answer readily and quickly, "without thinking."

The LMS must control the learning process dynamically, thereby tailoring the instruction to the needs of each individual student to insure mastery and fluency on a very detailed level.

When implementing the general characteristics of the LMS listed below, development is guided by a number of more specific principles that give rise to several of the major features of how the LMS operates. These features provide the basis for the proving effectiveness. Collectively, these features can be seen as "rules" for the implementation of effective and efficient instruction.

1. Break subject matter content material into small units (facts or concepts)
2. Emphasize the teaching of concepts, not just isolated facts
3. Provide immediate and frequent positive feedback
4. Require active participation
5. Teach in sequences that are easiest to learn
6. Teach to mastery
7. Teach only the material not yet mastered
8. Teach to fluency as well as mastery
9. Correct errors immediately without penalty
10. Provide individualized instruction to heighten motivation
11. Use fast-paced delivery to maintain attention
12. Use continuous, objective measurement of the learning process

Content Validity

Content validity for the evaluation questions is addressed during the development of the course. Subject matter experts and curriculum designers review all content material to insure that it is factually accurate and comprehensive for a given topic. Care is taken to insure that there are enough items to adequately assess the student’s knowledge of a given topic and that all questions relate to a learning objective for a given module, or chapter. Finally, proper instruction requires that questions are posed dynamically, for example in a way that is tailored to the mastery level of the student, rather than statically in exactly the same way for all students.

When implementing USPAP Courses that teach to mastery, it is essential to design the assessment process so that only students who have sufficiently mastered the materials can complete the assessment. Poorly designed assessments can be completed with random guessing, patterned guessing, answering using information provided in the question and answer process itself, and answering based on answer position.

1. *Random guessing:* Students who guess answers at random haven’t learned the material. A course that attempts to “teach to mastery” must provide a reasonable means of eliminating random guessing as a mechanism for arriving at correct answers. One way to avoid this issue is to require the student to give the correct answer on multiple occasions.
2. *Answering based on answer position:* When a student answers questions incorrectly on an assessment, subsequent assessments must change the position or order of the questions. By changing the order of the questions, we ensure that a student relying solely on answer position to determine the correct answers will not be able to complete the assessment.
3. *Patterned guessing:* Poorly designed assessments enable students to arrive at correct answers through a process of “patterned guessing.” This means that the student selects an answer to each question using a pre-selected pattern of answers. In the USPAP Course, never present the same question twice in succession. Instead, present questions in a random sequence over time.
4. *Answering using information provided in the question and answer process itself:* Poorly designed assessments enable students to answer a question using information that is included in the question, the answer choices, or the feedback given to the student after the question is answered. Make sure that only the instructional materials provide the answers to the questions.

Ensuring Students Meet Mandated Course Time Requirements

Competency-based education gives way to regulatory requirements for awarding rated time in appraisal licensing courses based on the “traditional seat time” equated to the classroom model where 50 minutes out of every hour is allotted for instruction.

Appraiser Qualifications Board – Requirements For Gaining “Equivalency Rating”
for Distance Education Delivery Systems for the 2018-2019 USPAP Courses

To address meeting the mandated course hours, the USPAP Courses must include adequate safeguards against fraudulent completion methods (*i.e., can't "beat the system"*).

There must be the following requirements in the course(s):

- To learn the material to preset standards (criterion)
- For students to interact with the material (*i.e., think critically about it*)
- To spend the rated number of hours on average
 - Computer must legitimately control when the student completes each module and the course (average hours controlled by the computer, not the student)
 - No countdown clocks on screen, except that a timer may appear on screen to advise student of the amount of time left to answer a quiz question
 - No use of narration to slow down the learning process just to meet timing requirements
- To prevent the student from bypassing the requirements
 - Can't print screens (text or questions)
 - No labels on answer options, so copying questions is more laborious than completing the course legitimately
 - Randomize answer positions
 - Can't back up and look up answers
 - Anti-guessing feature
- Must have valid assessment techniques
 - Require non-trivial exams and testing procedures throughout the modules and course
 - Limited use of True/False questions
 - Legitimate criteria for passing (no low passing scores for quizzes)
 - No “pattern guessing”
 - Don't repeat the same quiz
 - Don't supply answers and then allow answering the same questions immediately and displaying the questions in the same order

Course Engagement and Interactivity

USPAP education is more than a mere reading of its ethical and performance requirements; it is essential that real property appraisers are able to apply the requirements of USPAP to real-world appraisal situations. Through the years, the AQB and ASB have recognized the importance of realistic case studies in USPAP education through case study questions that appear in the 7- and 15-Hour USPAP Courses.

Video or multimedia presentation of case studies in the course are intended to approximate (as much as possible) the use of case studies in an onsite USPAP Course, and as such, these case studies will provide the appropriate emphasis for the application of USPAP in actual appraisal practice. In addition, the use of alternative instructional techniques for case studies will provide additional reinforcement and assessment without repetition, provide adaptive instruction, and accommodate multiple learning styles. Well-produced multimedia case studies will improve the student's engagement with the content, and will result in a more enjoyable learning experience.

The course material must contain case studies that are presented by video, multimedia, and/or another presentation method. The recommended amount of video/multimedia material per 7 hours of instruction is 30 minutes minimum. The case studies must be embedded within the course so that students can access them without requiring having to navigate to an external site. Case study content must be entirely controlled by the course provider. In addition, the student should not have the ability to fast forward through the video/multimedia content on the first pass, but may do so on the second or subsequent passes. Each case study must be followed by an assessment that ensures that the student viewed the case study and is able to apply the requirements of USPAP to the real world case study situation.

In order to accommodate students with limited or slow internet connections, in the presentation of video case studies, the LMS must provide the student with the option of an audio only presentation and/or the capability of reading a transcript as an alternative to viewing the video.

Interactivity and Module Assessments

The LMS challenges the student with a highly interactive delivery system. The overall structure of a course is as follows:

1. Each module begins with a set of stated learning objectives.
2. At frequent intervals throughout the module, the student must answer teaching questions that assess the extent to which the student has mastered the stated learning objectives. These questions are objective, multiple-choice questions in most cases.
3. Based on the student's responses, remediation is provided for items that the student has not yet mastered.
4. This remediation continues until the student demonstrates mastery and fluency of all items in the instructional content for the module.
5. Students must view all course content, answer all questions, and meet mastery criteria.

Pre- and Post-Course Assessments

The fundamental goal of any type of education is to ensure that a student develops a deeper and more comprehensive understanding of the course material as a result of completing the course. In distance learning, it is customary to measure a student's level of understanding of the course materials by providing testing and assessments at various points during the course; however, a mere post-course assessment (e.g., a final examination) is less meaningful if the provider does not establish a context in which the student's learning can be demonstrated and quantifiably measured.

A pre-course assessment will establish a baseline for an individual student's knowledge coming into the course, and a post-course assessment will provide measurable and quantifiable evidence of each student's increased level of understanding of the course

material. This will benefit the student by providing additional structural reinforcement without requiring repetition. This quantitative demonstration to the student of his/her increased level of USPAP knowledge will create a sense of pride and accomplishment, as well as increased confidence in his or her USPAP knowledge. In addition, the student indirectly benefits because the course provider will have a mechanism by which the effectiveness of the learning system can be quantitatively tracked. This can also help the course provider and the AQB/ASB identify USPAP-related concepts and issues that are not well understood by appraisers, which could be addressed in future Advisory Opinions and/or FAQs.

The LMS will provide for pre- and post-course assessments based on 20 unique questions each, randomly selected from a question pool consisting of a minimum of 80 questions. It will provide immediate student feedback on a question-by-question basis, as well as remediation for incorrect answers. A percentage score will be provided to the student for each assessment; these percentage scores must be aggregated and maintained by the course provider, and provided to the AQB upon request. An assessment question pool consists of a minimum of 80 questions, which will provide for a 4:1 ratio for the pre-course assessment, with no questions from the pre-course assessment repeated in the post-course assessment. These questions may not be the questions used within the course to measure progress. No minimum passing score is required for the pre- and post-course assessments; they are merely provided so that the student and the course provider can quantifiably measure student learning. The post-course assessment, as it is used in this context, is not the same as the proctored final examination that is required by some states.

IDECC Approval

The design of the Learning System must be approved by IDECC. However, IDECC approval does not in any way determine or grant the “Equivalency” rating for course content which can only be awarded by the AQB.

Student-Instructor Interaction

The LMS handles content related questions through the use of AQB Certified USPAP Instructors.

Primary Method

Questions related to interpretation of USPAP should be addressed by the Secondary Provider’s Certified USPAP Instructor taking into consideration local and state statutes which may apply. In most cases the Secondary Provider should forward questions from students directly to the USPAP Instructor. The USPAP Instructor is expected to respond within one business day either to the school or directly to the student depending on the business arrangement between the USPAP Instructor and the secondary provider.

Secondary Method

Any student question relating to USPAP interpretation that cannot be addressed by the Primary Method should be forwarded to the ASB.

Hosting the Courses Using an Equivalent Learning Management System (LMS)

The LMS is a critical component of delivering and managing online courses. The AQB believes that an LMS should be a comprehensive, online, automated system for managing the administration and delivery of the USPAP Online Courses. The LMS should encompass the following general functions:

- Student management
- Student registration
- Online payment for courses (e-commerce)
- Access to courses online
- Tracking student progress in the course
- Verifying completion of courses
- Maintaining and accessing student records
- Administration
- Online summary reports
- Student data retention and backup

III. Course Implementation

Course Components

Modules

The course is composed of a set of modules or chapters. A module is made up of slides or pages that may be grouped into sections. All modules should use a single, consistent design structure. Modules must be delivered according to a specified set of rules (see sections titled “Modes,” “Passes,” and “Mastery Process” below), and must be completed to meet the mastery and fluency criteria for the USPAP Course.

On “Content” slides, there are “Text Units” which is a unit of text that is displayed on each left mouse click on the content display area (or keyboard equivalent). A single paragraph is the default setting for text unit in the USPAP module. A key function of the LMS is breaking the subject matter content material into small units (facts or concepts) and not displaying long paragraphs or entire pages of text material for the student to read.

Menu

The course has a menu that gives the student access to the modules in the course. The purpose of the menu is to allow the student to access the modules in the course and display the completion status of the modules.

Access to the modules in the course via the menu can be one of two types: Controlled or Free. With Controlled access, the menu shows all modules that must be completed, and forces the student to complete modules in sequential order of the menu. With Free access, the student can access any completed module at any time and in any sequence.

Modes

The course has two modes: Learn Mode and Review Mode.

Learn Mode

Learn Mode is the default mode for all modules. When a module is completed in Learn Mode, a visual indicator (such as a check mark) is placed next to the name of the module on the menu to indicate that the module has been completed in Learn Mode and all module completion criteria have been met.

In Learn Mode, the student must progress through the instructional content in sequential order, and cannot proceed to the next pass if incorrectly answering 50% or more of the assessment questions, and cannot proceed to the next module until meeting the mastery criteria.

Review Mode

Review Mode is the active mode once a student meets all the requirements for completing a module. If the module is accessed again, Review Mode becomes the active mode.

In Review Mode, the student can review all instructional content within the module, i.e. content slides/pages and assessments/quizzes. If the student correctly answered

all questions within a given assessment, the student does not have to review the corresponding section. However, students must be able to access all sections within a module.

Module Composition, Delivery & Completion

Module Elements

The slides or pages within a module contain the instructional content for the module. There are two types of slides: Content slides and Feedback slides. Content slides include presentation slides, which can be either text or multimedia slides, and question slides which present questions about the content of presentation slides. The instructional content may include text, images, multimedia elements (such as sound or video files) interactive elements such as assessment questions, and feedback to the student about their progress in the module. Instructional content may be grouped into sections. Typically there is an assessment or quiz for each section. Each assessment/quiz must have an appropriate number of questions for the material being covered. Assessments must be on their own slide/page; only one question per page is permitted.

Feedback slides dynamically report information derived from the student’s performance data collected during the module. Feedback slides can be placed at any point in the module, but typically are placed at the end of either a module pass, a cycle in the question mastery process, or a completed module.

Passes

A pass is the presentation of all the slides/pages in a module (with the exception of feedback pages) in a predetermined order. There is no limit on the allowable number of slides/pages or sections per pass. There are typically about 30-60 slides/pages per module.

Assessments/quizzes within a pass may be presented in either fixed or random order. The questions within an assessment/quiz must be presented in a random order for each pass.

Unless the student answers all questions correctly during the first pass through the module, the student must do at least one additional pass to comply with the mastery criteria. If all questions are answered correctly on the first pass, a second pass is not required. After the second pass through the material, the student must then answer all questions that he/she has not yet mastered. This does not require an additional pass through the instructional material unless the student wishes to make one.

Mastery Criteria

The two mastery criteria are accuracy and fluency. Accuracy means that the question must be answered correctly. Fluency means the question must be answered within a preset allotted time. To advance to the next module, the student must meet the mastery criteria for every question, across all assessments/quizzes and sections, within the module. We ensure that the student meets the mastery criteria by enforcing a mastery process.

Mastery Process

Through the mastery process, we ensure that students meet the mastery criteria for each module. Students often have to do multiple passes through the instructional content and complete multiple mastery cycles of reviewing the content and answering assessment questions in order to meet the mastery criteria for the module.

Single Mastery Cycle Scenario

If the student answers all mastery assessment questions correctly on the first pass through the module, the student has met the mastery criteria and can advance to the next module after having completed one mastery cycle. Since the order/position of the assessment questions is different for each student, we can be confident that a student who answers all questions correctly on the first pass has truly learned the material.

Multiple Mastery Cycle Scenarios

During the first mastery cycle, if the student answers one or more questions incorrectly for a given assessment/quiz, the student has not met the mastery criteria and must subsequently go through at least one more mastery cycle and answer correctly twice all the assessment questions that weren't mastered during the first pass before advancing to the next module.

- If the student answers correctly **50% or less** of the questions presented within a module, that cycle is considered failed (anti-guess feature) and the student must repeat the cycle and does not receive credit for that cycle.
- If the student answers correctly **more than 50%** of the questions presented within a module, the student may progress to the next cycle of that module; however the student will subsequently be required to answer all questions that he/she missed on that cycle.
- If the student answers correctly **100%** of the questions correctly for any given assessment on the first pass, those questions are considered mastered and the corresponding pages are not required to be reviewed during subsequent cycles.

For the second and subsequent cycles, assessments that the student had successfully mastered (i.e., answered all the questions correctly on the first pass through) need not be re-administered.

During the third pass and all subsequent passes, the student has the option to skip the instructional content review and only repeat the mastery assessments. For the third and subsequent cycles, the mastery assessment must again only include non-mastered questions. However, if the resulting number of questions for a given mastery assessment is less than five, additional questions that already meet the mastery criteria must be displayed such that the assessment presents at least five questions to the student. If the student answers mastered questions incorrectly, the questions do not revert back to not meeting the mastery criteria. Again, the assessment questions must be displayed in random order for each pass. These questions are presented as question slides, as described previously, with only one question per slide.

At the end of the third pass and all subsequent passes, the student meets the mastery criteria and advances to the next module only if the student has answered correctly twice all assessment questions.

Mastery Process End

When the student meets the mastery criteria for a given module, the menu must reflect that the module is complete (e.g. via a checkmark) and allow the student to advance to the next module.

Module Interface

Navigating the Course

The two primary areas of the screen are the content display area and the content navigation menu area. The student must be able to navigate the course by either mouse or keyboard. The interface must prevent students from skipping required content or questions.

When a student goes back to prior slides using the “back” button, the “forward button” is activated and when clicked, displays text one page at a time until the student reaches the initial point where the back button was selected. Left click (or keyboard equivalent) anywhere on text display area advances the student to the next paragraph (or page).

Accessing Reference Materials

Course reference materials must be available as PDF documents at the course and module level, although students are only allowed to download/print the course materials (excluding quizzes and assessments) after having completed the course. These course reference materials should be accessible from anywhere within the course. During the course, student functionality for printing the screen (text or questions) must be disabled.

Indicating Progress

There must be interface components to indicate the following:

- how many assessments/quizzes are in a given module
- each time a question is answered correctly for the first time
- each time a question is answered correctly for a second time (i.e. each time a question meets the mastery criteria)

These interface components should be active from beginning of module so students can determine immediately relative progress through the module.

Finally, an interface component indicating that the student has reached the end of the page must appear after the display of all the text for a given page.

Place Saving

When the student exits the course and later returns, the student must return to the same slide/page from which they exited the course. This feature is only required for modules that students do have to complete in order to complete the course.

Asking Questions

Multiple choice questions can have up to four options. Answers can consist of text and/or graphics. When the student answers a question incorrectly, an explanation of why the chosen answer was incorrect can subsequently be displayed on the slide/page (possibly after a delay). Explanations are shown for incorrect answers only. Answers options are randomly assigned to answer positions on each occurrence of a question.

Hyperlinks to e-USPAP

There must be contextually relevant hyperlinks within the course materials to the actual electronic USPAP document, so that students will be able to access applicable sections of USPAP simply by clicking on a hyperlink within the course text, rather than by manually searching. This will save the student time and effort, and will make it more likely that the student will use the e-USPAP as a resource in the course.

Hyperlinked integration to keywords should be employed when a key concept is taught and not necessarily through the whole course unless desired by the provider. For example, it is not required to link to the definition of the word “Preamble” everywhere it may be listed in the course. However, in the units where the “Preamble” is the primary focus of instruction, the hyperlink should be included.

Time Records

For each student, the LMS must record the:

- total elapsed time in the course, from the time the course menu is first accessed until the student exits the course
- total elapsed time for each module for each student
- time when a student completes a module
- time when a student completes all the required modules in the course

When the student is inactive within a module, time will not be accumulated (i.e. the timer will stop). We define inactivity as any time equal to or greater than five minutes without a student action, including a mouse click or keyboard gesture.