

# **Maximizing the Value of Diagnostic Submissions – A novel web based instructional module for veterinary students nationwide**

Final Report to The American Association of Swine Veterinarians Foundation

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## **Description of the New Course**

The on-line training module is complete and available without charge through the Swine Medicine Education Center at Iowa State University (Please see: “Interested Practitioners and Students” below). To develop the course content, veterinary students and investigators directly observed functions in the Veterinary Diagnostic Laboratory and interviewed pathologists and technicians. From these data, common deficiencies and opportunities for improvement of case submissions were identified. Targeted video and still photographs illustrating these points were collected during normal function of the lab while protecting client confidentiality. These audio and visual resources were organized and edited into three specific learning sections. The final module is structured to guide students through the learning sections in sequence and utilizes the Blackboard® class management system (see Figure 1: Entry Page).

The entry point for the course is a syllabus and instruction sheet that describes basic navigation and the course outline. Each learning section includes an instructional video, printed resources that are recommended to further understanding or implementation of the objectives, and a quiz to assess retention of key points. Quizzes contain 10 multiple choice questions and 9 of 10 questions must be answered correctly to move to the next learning section. Students are allowed unlimited attempts at the quizzes and encouraged to review the module material again in the event they answer less than 9 correct. The learning objectives and the length of original instructional video developed are:

1. Tissue Selection and Proper Sample Shipping (10:04 min)
2. Filling out the Forms (5:28 min)
3. A Case Pathway Through the Diagnostic Lab Process (5:00 min)

In order to facilitate interaction and provide a mechanism for answering questions that students have during the course, a discussion platform is linked to the main content page of the course (see Figure 2: Discussion platform). Entries made in this discussion platform automatically trigger a notification that is sent to the Swine Medicine Education Center. These questions are generally answered within one business day. Participants are given the option of “subscribing” to

the discussion forum so that when new posts or discussions occur, they will be notified by email and able to join the updated discussion.

### **Modifications from the Original Proposal**

Originally, the intent was to collect and stream video footage in the current high-definition video standard. All raw footage was collected and edited in this format but the videos produced and streamed in the final course have smaller dimensions. In development work with the platform and distance locations, the smaller format represented an optimization of file transfer speed and resolution (See Figure 3: Video frame within the course). However, since all raw footage was obtained in the high-definition standard and SMEC maintains active editing operations, the course can be updated as internet speeds allow. The raw and edited footage may also have application in presentations and live courses that allow use of high-definition video and is available for such.

### **Acknowledgements**

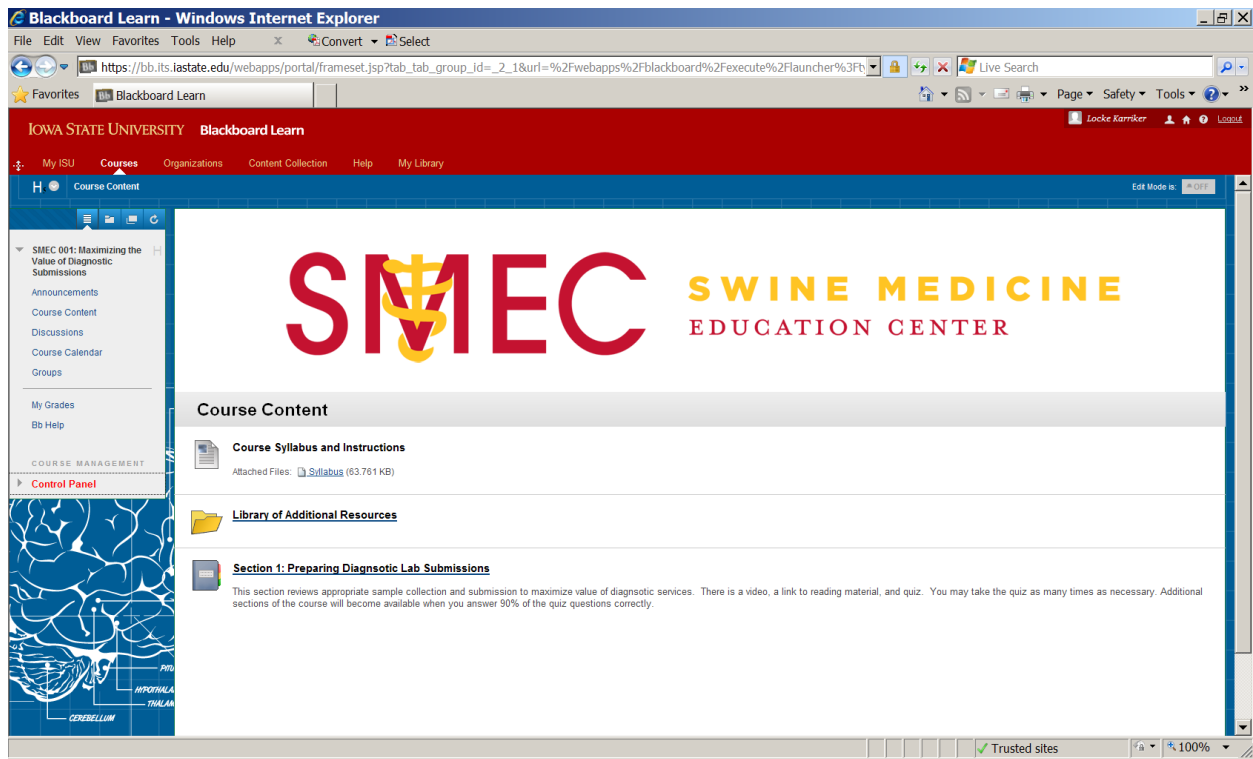
The investigators wish to acknowledge the camaraderie and cooperation of the faculty and staff of the Iowa State University Veterinary Diagnostic Laboratory for data and perspectives on case submission improvement. Additionally, the technical and organizational expertise of Dr. Jessica Bates was critical to completing the project.

### **Interested Practitioners and Students**

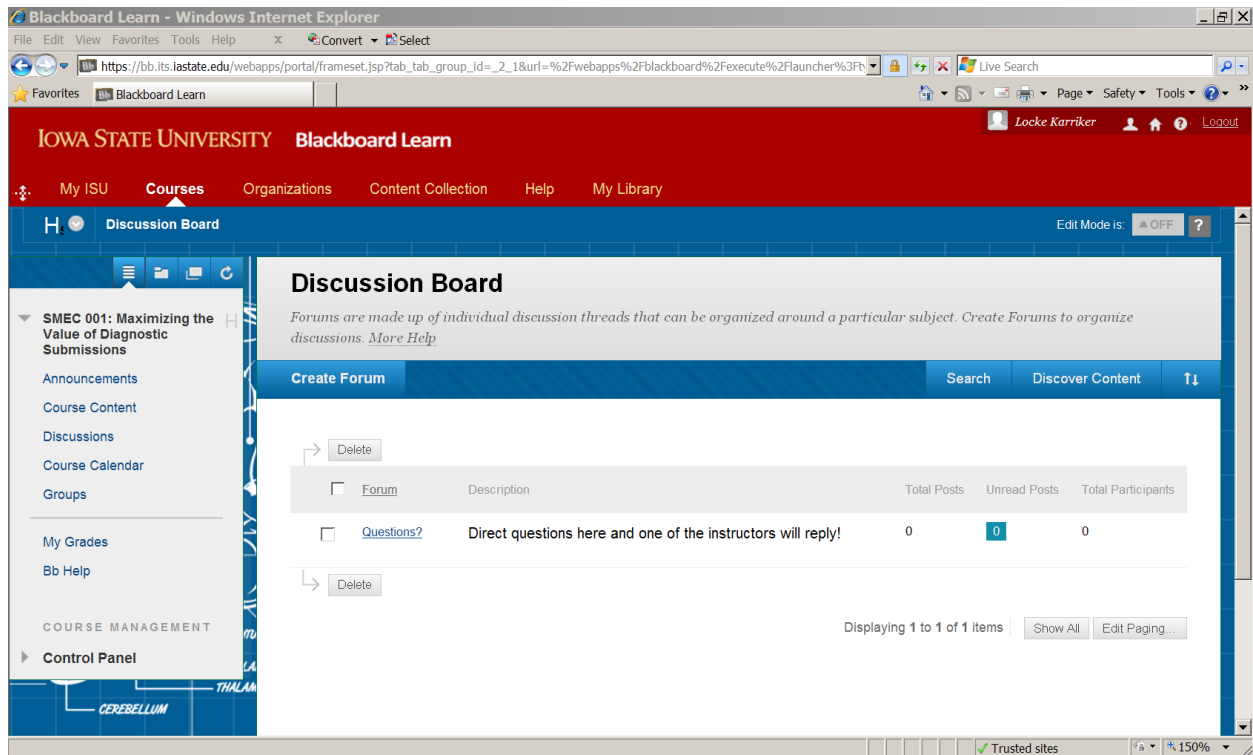
The Swine Medicine Education Center plans to maintain this course indefinitely. Please contact the Swine Medicine Education Center at: [isusmec@iastate.edu](mailto:isusmec@iastate.edu) and request the SMEC 001: Maximizing the Value of Diagnostic Submissions course. Please indicate if you are an AASV member.



**Figure 1: Entry page**



**Figure 2: Discussion platform**



**Figure 3: Video frame within the course.**

