

Assignment 3: Final Project

LMS Course Development

Course: Developing Instructional Media

Course Code: EDID 6510

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Table of Contents

Learning Management System	4
Justification	4
Access to course.....	6
LMS Plan Course Overview	6
Unit 14: Communication and Documentation Summary.....	7
Unit 15: Head and Spine Injuries Summary	8
Unit 16: Orthopaedic Emergencies Summary	8
Analysis.....	9
Prerequisites	9
Analysis of Current Practices.....	9
Course length and organisation.....	9
Unit Learning Outcomes and Objectives	10
Unit 14	10
Unit 14 Specific Objectives: After completing class activities, the learner will:	10
Unit 15 Specific Objectives: After completing the class activities, the learner will have the information needed to:.....	11
Unit 16 Specific Objectives: After completing the class activities, you will have the information needed to:	12
Limitations	12
Design	12

Theories and Methods	12
Resources	13
Content Delivery	13
Course competencies	13
Feedback mechanism	14
Development	14
Implementation	14
Evaluation	14
Peer reflection	16
References	18
Appendix	20
Appendix A	20
Appendix B Colour Contrast Analyser Results	21

Learning Management System

An LMS delivers content and handles course registration and administration, skills gap analysis, tracking and reporting (Gilhooly, 2001). The selected Learning Management System (LMS) is Schoology. Schoology has been in existence for over ten years and is designed for all students from kindergarten to tertiary level (Schoology, 2021). It is intended for school districts and prides itself on a collaboration platform that brings together administrators, coaches, teachers, students, and parents. PowerSchool recently acquired Schoology and brought an Education Management Information System with over 20 years of experience and broader reach to the LMS platform (PowerSchool, n.d.).

Justification

There has been some discussion about the confusion between an LMS and other computer applications. However, Szabo & Flesher (2002, as cited in Watson & Watson 2007) defines an LMS as the infrastructure that "delivers and manages instructional content, identifies and assesses individual and organisational learning or training goals, tracks the progress towards meeting those goals and collects and presents data for supervising the learning process of an organisation as a whole" (p.24). With that definition in mind, Schoology was selected for the following reasons:

1. Schoology integrates with a wide array of computer applications that provide users options and ease of transition for new users. Tella (2015) purports that having a platform that integrates apps saves money and time while reducing the chances of errors and duplications. In addition, Tella continues, "there are great benefits in getting insights from other apps in one location and the ability to customise your content gives Schoology the edge over other apps".

2. In-app features such as comments, grading, calendar notices, emails, badges, and more make Schoology competitive with other Learning Management Systems. The business world is rapidly changing, and an LMS that can meet your 'organisation's needs is essential today. Prasad (2021) purports that a modern LMS has features that help learners and administrators achieve their goals easily through personalisation and valuable tools and widgets.
3. The design of the Schoology platform provides a range of features for K-12 learners, and the new inclusion of technology from PowerSchool has expanded its reach. According to Pappas (2020), the top LMSs allow for interactivity through Application Programming interfaces (APIs). This is a crucial feature in the leading Cloud-based LMSs. Having this feature and the ability to integrate is vital in a fast-paced technological world. An organisation with an existing system will choose a modern LMS that allows its existing content to be transferred seamlessly.
4. Accessibility: Schoology is a responsive LMS accessible via its mobile app with a familiar layout on all other devices. The UI is adaptable to common browsers such as Edge, Chrome, and Mozilla. While its content is displayed in readable text sizes, a colour contrast analyser suggests some improvements are needed (see Appendix B)
5. Colour Contrast Analyser Results: **Error! Reference source not found.**). Heading styles are distinctive and displayed at recognisable text sizes and styles. Adding photo resources directly to the page allows adding additional descriptive text; however, imported content from MS Word, for example, will maintain its alternative text features. The tables' primary function in Schoology is tabular, as suggested by (Blackboard Ally n.d.) and valuable for clear column headings. Noticeably, all links

have descriptions that are consistent with accessibility guidelines. Penn State University (2019) particularly suggests that languages be appropriately tagged.

Access to course

To join the Practical First Aid Course, visit [Schoology.com](https://www.schoology.com) and enter access code **→3QK8-N46R-HZG5G** or click this [link](#); see Figure 1 for a screen preview. Alternatively, you can use the student tester to log in with these credentials. Username: Student Tester; password: EDID6510.

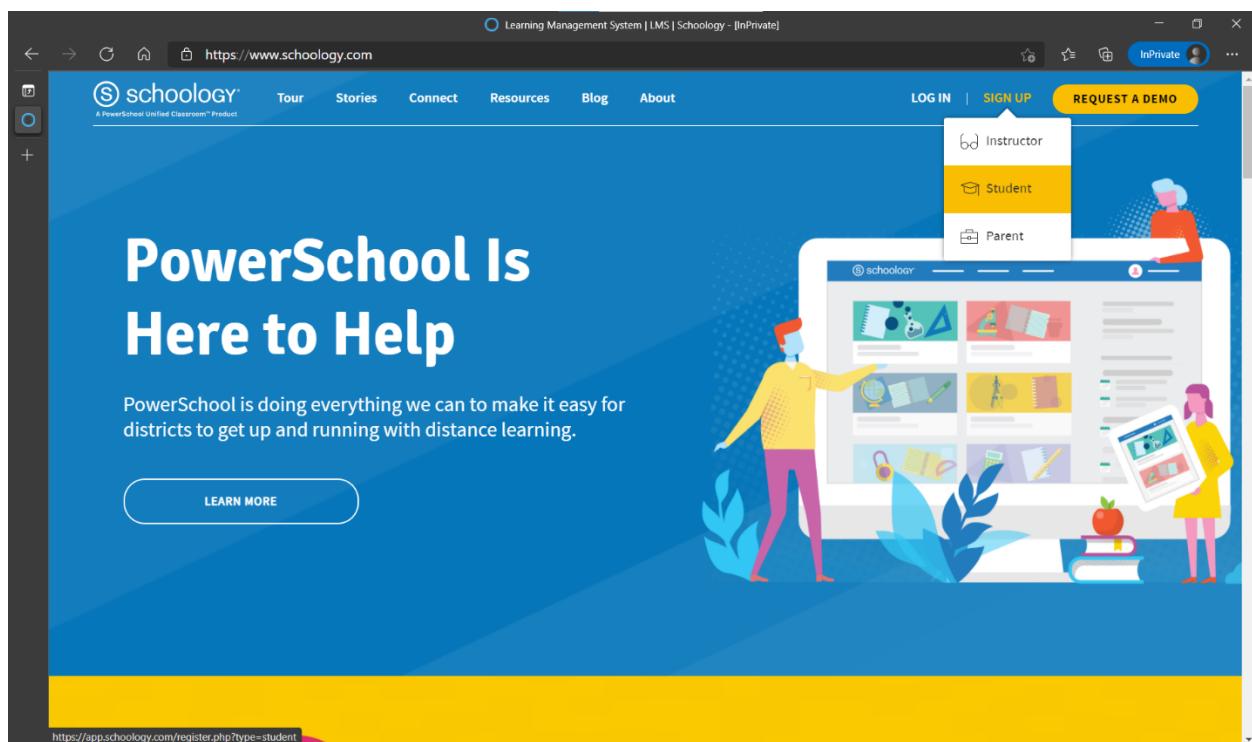


Figure 1 Signup for student account

LMS Plan Course Overview

Practical First Aid Training Course

This course gives you the necessary information and skills to help casualties during emergencies. It is available in person and via our blended training method, which combines online work with hands-on skills sessions.

Figure 2 is a roadmap of the units covered in the entire programme. However, three units were extracted to demonstrate the approaches to developing this blended training programme.

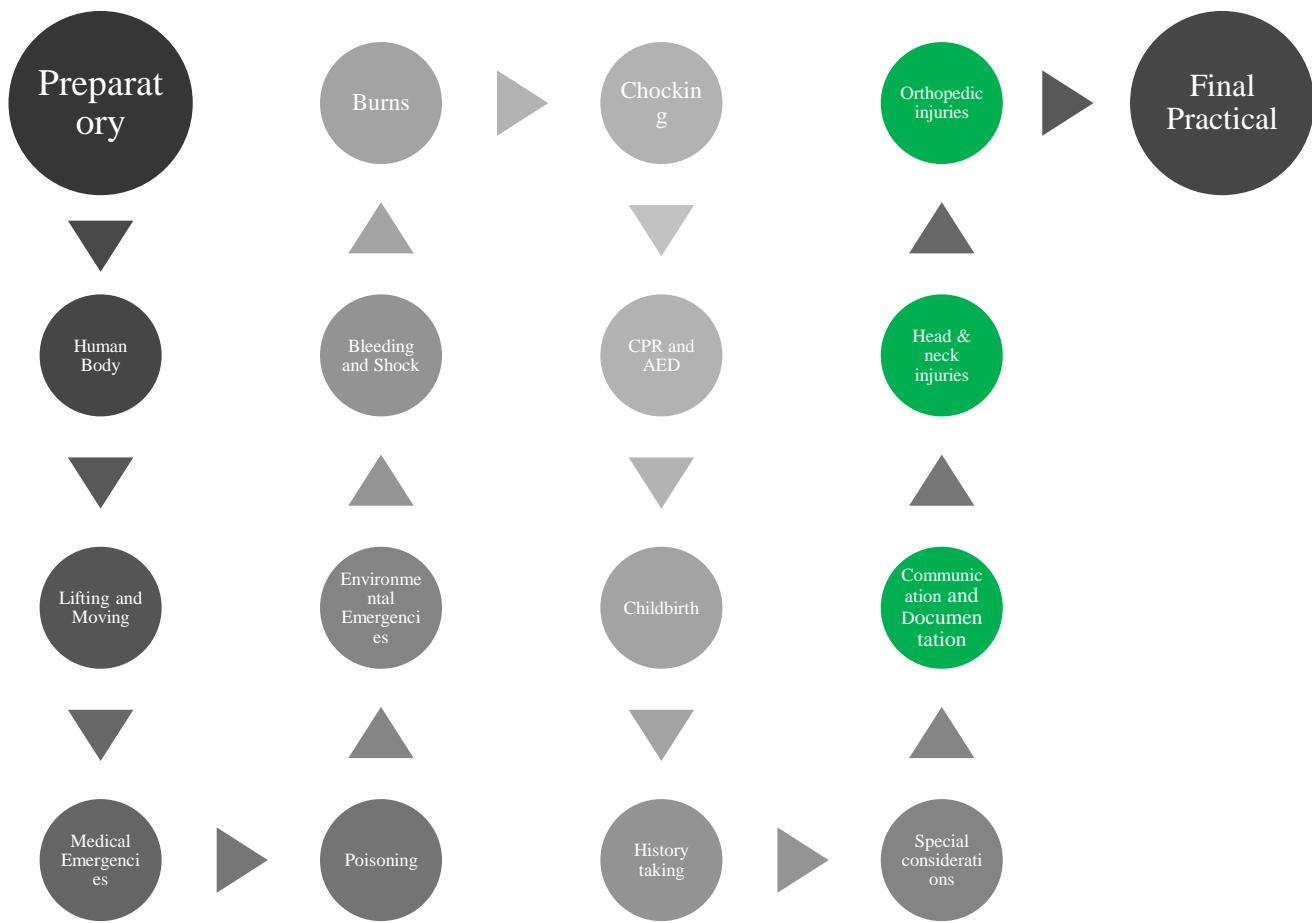


Figure 2 Practical First Aid Course overview progress chart

Unit 14: Communication and Documentation Summary

Communication is of utmost importance in a first aid emergency. It helps the first volunteer on the scene get a good mental picture of what has happened and how to respond. Volunteers learn a lot about communication skills during their first aid training course because they are invaluable to their assessment and treatment. This unit covers verbal and non-verbal communication skills while considering therapeutic communication principles. In addition, this

unit will keep the volunteers aware of their body language, cultural bias and other factors when communicating with injured persons.

Essential resources:

- Practical First Aid book
- Sample Patient Care Report

Unit 15: Head and Spine Injuries Summary

Proper management of cervical spine injuries is critical to protecting the casualty and preventing further damage. Ruling out spinal injury before the casualty is moved away from the scene is ideal.

Essential resources:

- Practical First Aid book
- EMR student book
- Backboard with straps
- C-collar

Unit 16 Orthopaedic Emergencies Summary

An injury to a bone, joint, tendon, ligament, or muscle may cause pain, limit functional mobility, and loss of strength or range of motion. These impairments may prevent someone from enjoying routine work or recreational activities. Therefore, the focus of orthopaedic care and treatment is to help the injured feel less pain, heal properly and prevent worsening of injury (Sears, 2020).

Essential Resources

- Practical First Aid book
- Bandages

Analysis

Instructional Goals. Practical First Aid aims to provide high-quality first aid training to our volunteers. This training aims to equip volunteers with the skills and knowledge to preserve life, promote recovery, and prevent further worsening of injuries. In addition, it promotes the practical first aid skills of responders while building their confidence in delivering treatment to the injured and sick.

Target Audience

The target group includes active volunteers of the Anguilla Red Cross. Active volunteers are persons of any sex, race, nationality, and ethnicity between the ages of 16-45. These persons are generally available after working hours and on weekends.

Prerequisites

Learners must have basic computer navigation and physical ability to perform all practical skills. They must also have completed the Anguilla Red Cross Basic Training (Induction, Orientation and Child Protection).

Analysis of Current Practices

The American Red Cross and British Red Cross share similar approaches and content. However, the American Red Cross has blended learning content that is adaptable to the Anguilla Red Cross context. In addition, interactive gamification activities and assessments will enhance this Practical First Aid course delivery.

Course length and organisation

The initial course requires a minimum of 24-30 clock hours. This includes didactic presentations, psychomotor demonstrations, skills practice, affective evaluations, and examination time. Clinical hours are not required. The sequence in which lessons are presented is

left to the facilitator's discretion. However, it is expected that the Preparatory Section (Roles/Responsibilities, Medical/Legal Considerations and more) will be presented first.

Unit Learning Outcomes and Objectives

Unit 14. Unit 14 forms part of the Practical First Aid Preparatory section. This section applies fundamental knowledge of the first responder's system, safety/well-being of the response volunteer, and medical/legal and ethical issues to the provision of emergency care.

Outcomes: At the end of this lesson, learners will:

1. Discuss the importance of professional communication by response volunteers.
2. Understand the components of the written report, considerations regarding patient refusal, and special reporting situations.

Unit 14 Specific Objectives: After completing class activities, the learner will:

1. Identify the essential components of the verbal report. (Cognitive)
2. Discuss the communication skills necessary to interact with the patient. (Cognitive)
3. Discuss the communication skills that should be used to interact with the family, bystanders, and individuals from other agencies while providing patient care.
4. Distinguish between skills used to interact with the patient and those used to interact with others. (Cognitive)
5. List the correct procedures used in radio communications. (Cognitive)
6. Explain the importance of effective communication of patient information in the verbal report. (Affective)

7. Present an organised oral patient report to other medical personnel accepting care for the patient. (Psychomotor).

Unit 15. Head and Spine Emergencies form part of the Trauma Emergencies section.

This section provides learners with skills in managing injuries that are usually visible, painful, and sometimes life-threatening.

Unit 15 Specific Objectives. After completing the class activities, the learner will have the information needed to:

1. Relate the mechanism of injury to potential head, neck, and spine injuries. (Cognitive)
2. List signs and symptoms of head, neck, and spinal injuries. (Cognitive)
3. Describe general care for head, neck, and spinal injuries and care for specific head injuries. (Cognitive)
4. Describe the method of determining if a responsive patient may have a spinal injury. (Cognitive)
5. Explain the importance of minimising a victim's movement with a possible head, neck, or spinal injury. (Affective)
6. Discuss various ways of preventing head, neck, and spinal injuries. (Affective)
7. Perform the proper care for specific head injuries. (Psychomotor)
8. Demonstrate manual stabilisation of the head, neck, and spine. (Psychomotor)
9. Demonstrate how to immobilise a head, neck, or spinal injury to move a patient from the scene to a stretcher. (Enrichment skill)

Unit 16. Orthopaedic Emergencies form part of the section Trauma Emergencies.

Although musculoskeletal injuries are almost always painful, they are rarely life-threatening.

However, when not recognised and taken care of properly, they can have severe consequences and even result in permanent disability or death (American Red Cross, 2017).

Unit 16 Specific Objectives. After completing the class activities, you will have the information needed to:

1. List the three mechanisms of muscle, bone, and joint injuries. (Cognitive)
2. Describe different types of musculoskeletal injuries and how to assess for muscle, bone, and joint injuries. (Cognitive)
3. List the signs and symptoms of muscle, bone, and joint injuries. (Cognitive)
4. Describe general care for muscle, bone, and joint injuries.
5. List general guidelines for splinting. (Cognitive)
6. List the purposes of immobilising an injury. (Cognitive)
7. Demonstrate how to immobilise muscle, bone, and joint injuries. (Psychomotor)

Limitations

The course has critical activities that require skills demonstration and practice. A blended approach is a new venture and will encounter some challenges for the volunteers with limited access and devices. In addition, scheduling synchronous sessions will be challenging for large cohorts.

Design

Theories and Methods

The Constructivist Instructional Theory will form the basis of the training design. It will be supported by instructional strategies such as role-playing, coaching, guided practice, problem-solving learning, skills demonstration, group work, and discussions.

Resources

Hardware. Computers, laptops, tablets, mobile devices and phone tripods.

Software. Schoology, WhatsApp, Skype, St. Johns Ambulance first aid APP, PDF viewer and media player

Books. Practical First Aid and American Red Cross EMR participant Manual

Content Delivery

Practical First Aid is offered in a blended-learning format that includes each unit's online theory and assessment. The online portion will consist of core unit content that will give the learner sufficient information to prepare themselves for skills stations. A series of synchronous sessions complement the content posted on the LMS. Finally, once the learners complete online sessions, they will be scheduled to complete a skills assessment.

Media. Audio, video, graphics, and gifs, some created by the Instructional Designer and others from a third party while following all applicable licence use regulations. The training will apply various tools to ensure that content is consistent with Web Content and Accessibility Guidelines (WCAG). Copyright considerations will be applied through developed content and appropriated material with acknowledgement at the end of each unit.

Course competencies

The lesson plans employ various methods to meet learners' needs for consistent, high-quality instructions and accurate information. Various interactive activities are integrated into the sessions to help the learners acquire new knowledge, build correct psychomotor skills, and develop decision-making and problem-solving skills. There will also be skill and scenario demonstrations, skills sessions, traditional lectures, and guided discussions.

Feedback mechanism

Feedback will be collected to determine if the learners can comprehend the lessons. This will be realised through standard questions posted to the forum and to each student after a practical session or activity. In addition, learners will be encouraged to share their experiences through synchronous sessions.

Development

Online Course Content was developed in the Schoology LMS, ensuring consistency throughout each unit. Content postings will be realised simultaneously each week and assessments will be due simultaneously on the due date. Appendix A displays the layout of the content page.

Implementation

Learners will be tracked through scheduled attendance to synchronous sessions and date stamps of submitted assignments. In addition, Schoology allows for recording attendance within the platform and issuing badges for outstanding behaviours and achievements.

Evaluation

The evaluation will capture information that measures the effectiveness of the training units in the LMS. Therefore, it will occur at each stage of the development process to ensure the content and structure meet the end users' needs. The instructional designer will do this through analysis and periodic quality checks of the LMS. In addition, data provided from the feedback tools and LMS raw data will contribute to the evaluation of the modules.

Learners will participate in summative and formative assessments delivered through the LMS's platform. Notably, the evaluation will consider the clarity of the instructions, attainability of deadlines and the effectiveness of the assignments, activities, and assessments.

Peer Reflection

Designing and developing the LMS was somewhat an exciting experience. Although I have experience working in other LMSs, I chose content needed for an actual training programme for the Anguilla Red Cross. Therefore, it was an actual test of craftsmanship, patience and application of Instructional Design knowledge. Application of programme knowledge was prominent as aspects of human performance factors, learning theory, approaches to designing and instructional material and factoring trends in instructional design came out as I developed the LMS.

Feedback from peers was helpful as they mentioned areas for improvement and what they liked and critiqued the LMS. Of note, feedback received about my design included:

- Improvement to some of my objectives. They fell on the lower tier of Bloom's taxonomy scale. I explained that the target audience and the training programme's nature dictated the objectives' level.
- Some content was missing or poorly organised in the LMS, and some areas needed noticeable improvement. This was addressed within days as the content was still being developed.

Feedback on the platform. Colleagues and peers suggested that Schoology needs navigation buttons to move between folders and content without going out to the main landing page. The calendar should update automatically. The left navigational pane should be moved, making the LMS look crowded, and lower-level learners will have navigational challenges. One user reported small text size while using the Safari web browser.

Positive feedback. All peers liked the organisation and consistency of the content. There was some use of alt text features observed. The Colour contrast was not harsh, making it easy to

read. They commended the use of different media to share information. The assessment took various forms, so the learners were engaged differently. Finally, accessing the course information is like a combination of explorer navigation styles that might be familiar to most users.

The overall experience of putting the plan together, researching the target audience's organisational needs, and designing content were enriching. Moreover, knowing that the content development for this assignment will be used in an organisation's training feels even more rewarding. I have always regarded *learning by doing* instructional approach as one of my favourites. Now, completing an assignment that I can use in actual organisation practices feels even more gratifying. Indeed, an A for this assignment would uplift my spirits as well. However, I am exemplifying that the approach used in this course has afforded me to look beyond the assignment. Notably, that should be mirrored as much as possible throughout the University of West Indies.

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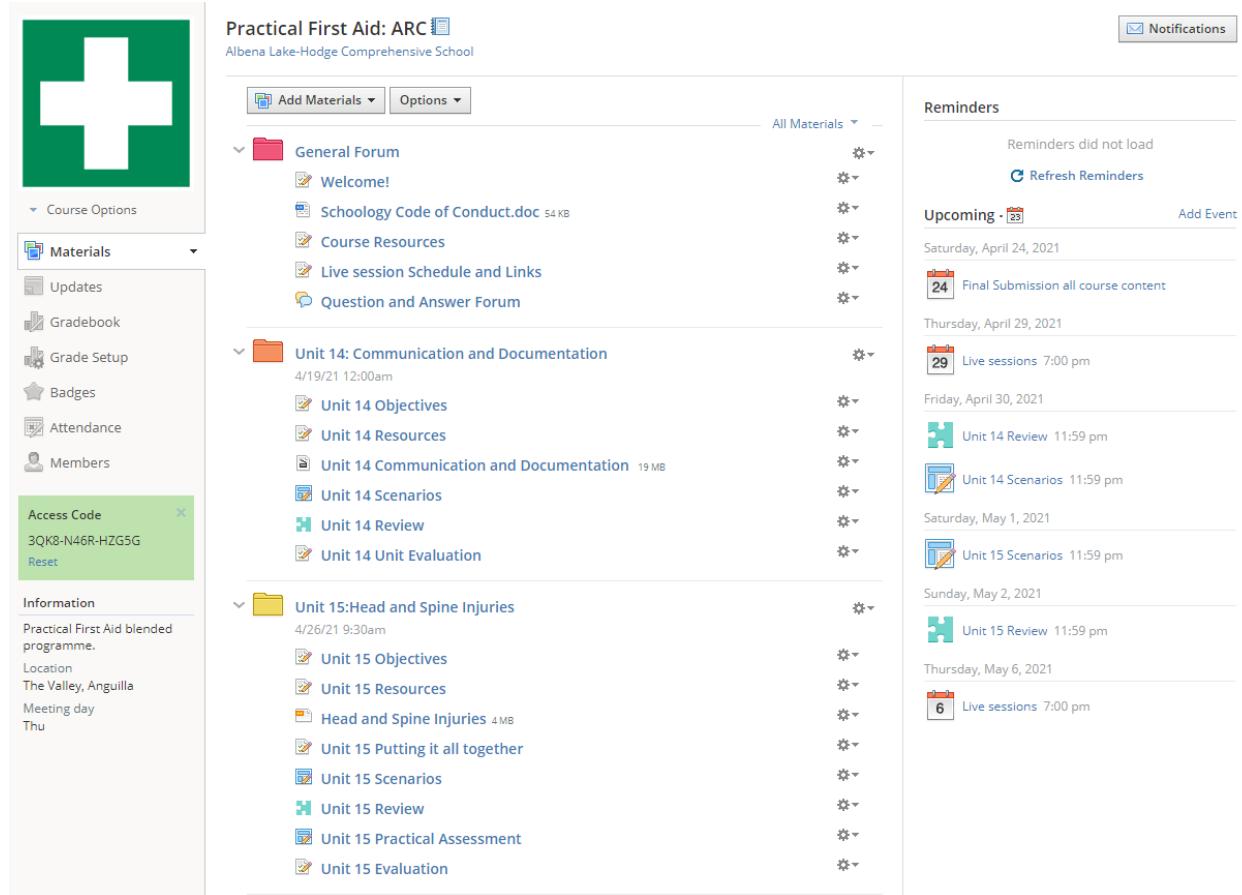
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Appendices

Appendix A

Example of content layout in Schoology



The screenshot displays the Schoology LMS interface for a course titled "Practical First Aid: ARC".

Course Options:

- Materials
- Updates
- Gradebook
- Grade Setup
- Badges
- Attendance
- Members

Access Code: 3QK8-N46R-HZG5G

Information:

- Practical First Aid blended programme.
- Location: The Valley, Anguilla
- Meeting day: Thu

Course Content:

- General Forum:**
 - Welcome!
 - Schoology Code of Conduct.doc (54 KB)
 - Course Resources
 - Live session Schedule and Links
 - Question and Answer Forum
- Unit 14: Communication and Documentation:** (4/19/21 12:00am)
 - Unit 14 Objectives
 - Unit 14 Resources
 - Unit 14 Communication and Documentation (19 MB)
 - Unit 14 Scenarios
 - Unit 14 Review
 - Unit 14 Unit Evaluation
- Unit 15: Head and Spine Injuries:** (4/26/21 9:30am)
 - Unit 15 Objectives
 - Unit 15 Resources
 - Head and Spine Injuries (4 MB)
 - Unit 15 Putting it all together
 - Unit 15 Scenarios
 - Unit 15 Review
 - Unit 15 Practical Assessment
 - Unit 15 Evaluation

Reminders:

- Upcoming (23) Saturday, April 24, 2021: Final Submission all course content
- Thursday, April 29, 2021: Live sessions 7:00 pm
- Friday, April 30, 2021: Unit 14 Review 11:59 pm
- Saturday, May 1, 2021: Unit 14 Scenarios 11:59 pm
- Sunday, May 2, 2021: Unit 15 Scenarios 11:59 pm
- Thursday, May 6, 2021: Live sessions 7:00 pm

Notifications: (Notifications icon)

Appendix B

Colour Contrast Analyser Results of Schoology

