POINTFUL EDUCATION

Education & Teaching Advanced

Syllabus

» Course Overview

This course is designed to prepare future educators for the classroom they will inherit! It starts with a history of education and how blended, adaptive, and personalized learning are coming to the forefront in learning. It then explores new and emerging technologies, along with their current and future impact on education. Throughout the course, students will explore a wide range of career possibilities in the education field and evaluate both the promises and pitfalls of technology in education.

» Course Outline by Module

Module 1	The History of Education in the United States	**Module 5**	Robots at School
Module 2	An Introduction to Distance Learning	**Module 6**	Wearable Technology in Education
Module 3	Blended, Personalized, and Adaptive Learning	**Module 7**	Careers in Education
Module 4	Augmented and Virtual Reality in Education	**Module 8**	Future of Education

» Module Overview and Learning Objectives

Module 1. The History of Education in the United States

This module will cover the history of U.S. public school education from the years 1600 to the present day, focusing on the impact that historical events had on the development of schools and educational policy. The module will also cover the introduction of technologies to the classroom and the impact they had on teaching and learning. Finally, the current structure of the government overseeing the public education system will be discussed.

***Learning Objectives*:** In this module, students will:

- Construct a timeline of education before 1900 in the United States.
- Identify key changes in brick and mortar education through 1960.
- Evaluate the historical events which impacted brick and mortar education from 1960 to the present day.
- Analyze the impact of the introduction of various technologies to brick and mortar education.
- Understand the present-day structure of federal and state government as it pertains to education.

Module 2. An Introduction to Distance Learning

This module will introduce distance education by covering some of its most important features. A brief history of distance learning will be discussed to provide a better understanding of current developments in distance education. The module will also cover what makes distance learning different from face-to-face learning, how the Student Information System and Learning Management System bring distance learning to life, what key components are involved in creating and offering high-quality online learning, as well as the differences found in online learning availability for both the K-12 and higher education system.

***Learning Objectives*:** In this module, students will:

- Construct a timeline of distance education from its beginnings to the present day.
- Evaluate the differences between face-to-face instruction and distance learning.
- Identify the key features of various Learning Management Systems and Student Information Systems required for distance learning.
- Outline the key components in online learning from organizations such as iNACOL and Quality Matters.
- Compare and contrast digital learning within K-12 and Higher Education.

Module 3. Blended, Personalized, and Adaptive Learning

In this exciting new module, we are going to explore the new and improved ways that educators are attempting to reach their students. Gone are the days of the one-room schoolhouse and the neat rows of children. Technology now allows the classroom to look like whatever you want it to, including your living room. Let's take a deep dive into three new styles of teaching, Blended Learning, Personalized Learning, and Adaptive Learning. In this module, we will learn about each, its strengths and weaknesses, and how they compare. Maybe you'll recognize one or two of these styles. If not, it's time that you did!

***Learning Objectives*:** In this module, students will:

- Define blended learning and its various instructional models.
- Define personalized learning and its various instructional models.
- Define adaptive learning and its various instructional models.
- Compare and contrast blended, personalized and adaptive learning.
- Discuss the systems available to support blended, personalized, and adaptive learning.

Module 4. Augmented and Virtual Reality in Education

How would you like to take a field trip with your entire class to view the Great Wall of China or Machu Picchu in the mountains of Peru? With AR/VR, it is now possible. Through this module, students will be engaged in learning about the impact of AR/VR on education with applications such as Astronaut Training, Google Expeditions, and other devices in various professions. They will learn the potential drawbacks and distractions that AR/VR can cause in education along with identifying potential career paths and opportunities.

***Learning Objectives*:** In this module, students will:

- Define key terms related to AR/VR in education
- Evaluate applications of AR/VR in education in the classroom and in corporate training
- Predict when they will first use AV/VR in school
- Determine the impact that learning using AR/VR could have on educational outcomes
- Discuss potential drawbacks and distractions that AR/VR could cause in education
- Identify potential career opportunities within AR/VR in education and educational paths to enter those careers

Module 5. Robots at School

In this module, we'll look at different ways robots and AI-based systems are being used in education delivery, such as assisting children with disabilities or encouraging technical creativity. A comparison will be made between the benefits and limitations of using robots and artificial intelligence in education. By the end of this module, you'll be able to identify career opportunities in education robotics and a pathway to enter this type career.

***Learning Objectives*:** In this module, students will:

- Evaluate various uses of robotics used in education
- Describe how robots are used to assist children with disabilities
- Compare the benefits and limitations of utilizing robots and artificial intelligence in education
- Discuss the impact that robots may have on the teaching profession
- Identify career opportunities in educational robotics and describe how teachers and students can utilize robotics and AI to achieve positive educational outcomes

Module 6. Wearable Technology in Education

This module presents the various ways in which wearable technology is making its way into the classroom. It will discuss how smartwatches are being used by both teachers and students to enhance learning outcomes. Students will also learn about some of the applications of augmented and virtual reality in education, and how this is enabling more immersive learning. Finally, the module will discuss some of the risks and drawbacks of this technology, including digital distraction and potential for cheating.

***Learning Objectives*:** In this module, students will:

- Define key terms related to wearable technology in education
- Describe current and potential applications of wearable technology in education for both students and teachers
- Evaluate the use of augmented and virtual reality systems to enhance learning experiences
- Discuss the potential risks and downsides of utilizing wearable technologies for education, such as technical problems, high cost, and cheating
- Examine how wearable technology and AR/VR can contribute to digital distraction and what students can do to increase focus and attention

Module 7. Sustainability Issues

In this module about education, we will take a closer look at the role of the teacher. Teachers are at the forefront of education, working hands-on with their students every day. We will learn more about their day-to-day role, as well as the education and certification requirements it takes to become one. Next, we will study administrators, their roles in education, and the education requirements to become one. The third vital role that we will study in this module is that of the counselor. We will look at how each of these roles is important in brick-and-mortar schools, as well as in distance learning. Finally, we will learn about the different ways these roles are important in the K-12 arena, and in higher education.

***Learning Objectives*:** In this module, students will:

- Describe the education requirements and the role of the teacher in K-12 brick and mortar and distance learning.
- Discuss the education requirements and the role of the administrator in K-12 brick and mortar and distance learning.
- Compare and contrast the education requirements and roles within education technology careers.
- Discuss the education requirements and the role of the counselor in K-12 learning.
- Identify the differences and similarities in the education requirements and roles of the teacher, the administrator, and the counselor between K-12 and Higher Education.

Module 8. Future of Education

Where is education going? Nowhere! Many, many things in this world are changing, but the need for education is as strong ever. We've taken a look at the history of the education system, at key roles in education, and more. In this module, we will begin by taking a look at brick-and-mortar education, the kind of school we see on TV. We'll explore how traditional education is changing thanks to the technological revolution—the introduction of new and emerging forms of technology. Next, we'll take a deep dive into those technological advances, and specifically how technology is advancing education and distance learning. Education is successful when students are exposed to many different learning modalities. In the third section, we will study several different modalities and how they might affect the education of the future. Technology isn't foolproof. Anyone who's Wi-Fi has dropped in the middle of a Netflix binge, or who can't get service to text in a rural area knows this to be true! The same is true for education technology. We'll discuss the possible risks of relying on technology for our education needs. Lastly, we'll explore distance learning and its global impact by looking at several countries' use of distance learning, and its impact.

***Learning Objectives*:** In this module, students will:

- Describe how brick and mortar education will change with new and emerging technologies.
- Describe how advances in technology will benefit distance learning.
- Compare and contrast various learning modalities and their impact on the future of education.
- Discuss the possible risks and downsides of relying on technology in education.
- Analyze the global impact of distance learning and its various benefits to countries other than the United States.