

AI in Medicine Syllabus

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Course Description

The Artificial Intelligence (AI) in Medicine certificate will equip health care professionals with a conceptual understanding of AI and its applications through medical case studies using machine learning models. This course will help prepare physicians, physician assistants, nurse practitioners and veterinarians to lead in the era of digital medicine.

Course Goals

Students will possess the knowledge required to understand AI in healthcare settings.

What You'll Learn

- Confidently read literature related to artificial intelligence in medicine.
- Understand how data-driven decisions are made and assessed.
- Identify and define different types of artificial intelligence tools and techniques used in medicine.
- Actively participate in the selection, purchase and deployment of AI based medical software.

Module Topics

- **Module 1 – Data and Decisions**
- **Module 2 – Concepts of Machine Learning**
- **Module 3 – Deep Learning**
- **Module 4 – Extending Deep Learning**
- **Module 5 – Deploying AI in Practice**
- **Module 6 – Real-World Applications of AI in Medicine**

Communication Guidelines

Your instructor is located in the Central Time zone (CT). Click here to check on the current CT date and time: <https://www.timeanddate.com/worldclock/>. If you search for city, please use Chicago.

Course Overview

All course materials will be accessed via the internet. Course modules will be a combination of video lectures and quizzes. Learners will work as an individual at their own pace to explore the concepts in this course.

Learning Activities

- **Video Lectures** – Instructors will present the core learning materials via high quality videos.
- **Quizzes** – Learners will take a quiz for each module. The quiz is located at the end of each module. The quizzes are open-note and unlimited attempts are allowed. Learners will receive immediate feedback on their answers. To earn a certificate, a score of 80% or higher is required.

Course Policy

- **Get Your Certificate**
To receive a Certificate of Completion for this course, you need to receive a grade of 80% or higher on the module quizzes. Once the certificate is granted, you will be able to see your certificate on the course progress page.
- **Obtain Continuing Education Credit**
This course has been planned and implemented in conjunction with the Carle health system and the Carle Illinois College of Medicine. Carle health system is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE) and the American Nurses Credentialing Center (ANCC) to provide continuing education credits.
 - **Physicians:** Carle health system designates this internet enduring material for a maximum of 6.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
 - **Nurses:** Carle health system designates this internet enduring material for a maximum of 6.0 ANCC contact hours.
 - **Physician Assistants:** Carle health system has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity

is designated for 6.0 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

- **For Pharmacists / Pharmacy Technicians:** Carle Health System designates this enduring material activity for a maximum of 6.25 contact hours (0.625 CEUs) for continuing pharmacy education credit. (JA4008175-9999-24-104-H99-P; JA4008175-9999-24-104-H99-T)
- **Veterinarians and Veterinary Technicians:** To obtain Veterinary Continuing Education (CE) credit for this course, please email your certificate of completion to the College of Veterinary Medicine Office of Public Engagement (ope@vetmed.illinois.edu.) The course is approved for 6 CE hours for veterinary professionals that complete the course with a pass rate of 80%. The University of Illinois College of Veterinary Medicine is an approved CE provider by the State of Illinois. Veterinary professionals with questions regarding CE credit may contact the Office of Public Engagement at ope@vetmed.illinois.edu.

Resources and Support

- **Technology Service Help Desk Support**
Email us at AlinMedicine@illinois.edu for inquiries relating to the course content or course.
- **Course Discussion**
Learners can help each other via the discussion page in each module.