Executive Certificate in AI Applications in Nutrition Education

Implementation and Adoption of AI Tools in Nutrition Education

Artificial Intelligence (AI): The simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using the rules to reach approximate or definite conclusions), and self-correction.

Related terms: Machine Learning, Deep Learning, Neural Networks

Big Data: Extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions.

Related terms: Data Mining, Data Analytics, Data Science

Chatbot: A computer program designed to simulate conversation with human users, especially over the Internet.

Related terms: Virtual Assistant, Conversational AI, Natural Language Processing

Computer Vision: A field of AI that trains computers to interpret and understand the visual world.

Related terms: Image Recognition, Object Detection, Optical Character Recognition

Deep Learning: A subset of machine learning based on artificial neural networks with representation learning.

Related terms: Convolutional Neural Networks, Recurrent Neural Networks, Long Short-Term Memory

Dietary Assessment: The measurement of food and nutrient intake in individuals or groups with respect to current recommendations and scientific knowledge.

Related terms: Food Frequency Questionnaire, 24-hour Recall, Diet History

Dietary Patterns: The quantities, proportions, variety or combinations of different foods and beverages in diets, and the frequency with which they are habitually consumed.

Related terms: Healthy Eating Pattern, Western Dietary Pattern, Plant-Based Dietary Pattern

E-Learning: The use of electronic media and information and communication technologies (ICT) in education.

Related terms: Online Learning, Mobile Learning, Blended Learning

Explainable AI (XAI): The branch of AI that aims to create a suite of machine learning techniques that produce more explainable models while maintaining a high level of learning performance.

Related terms: Interpretable AI, Transparent AI, Comprehensible AI

Food Environment: The physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food and beverage choices and dietary behaviors.

Related terms: Obesogenic Environment, Food Desert, Food Swamp

Food Insecurity: The state of being without reliable access to a sufficient quantity of affordable, nutritious food.

Related terms: Hunger, Malnutrition, Undernutrition

Gamification: The application of game-design elements and game principles in non-game contexts.

Related terms: Game-Based Learning, Serious Games, Persuasive Games

Genomic Epidemiology: The use of genomic data to understand the epidemiology of diseases and health-related traits.

Related terms: Phylogenetics, Genetic Epidemiology, Genome-Wide Association Studies

Health Disparities: Preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.

Related terms: Health Equity, Social Determinants of Health, Health Inequity

Health Education: Any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes.

Related terms: Nutrition Education, Health Promotion, Public Health Education

Internet of Things (IoT): The network of physical devices, vehicles, buildings, and other items embedded with electronics, software, sensors, and network connectivity that enable these objects to collect and exchange data.

Related terms: Smart Home, Wearable Technology, Wireless Sensor Networks

Machine Learning (ML): A subset of AI that involves the use of statistical techniques to enable machines to improve with experience in performing a task.

Related terms: Supervised Learning, Unsupervised Learning, Reinforcement Learning

Mhealth: The use of mobile devices in medical and public health practice and research.

Related terms: Telemedicine, E-Health, Digital Health

Natural Language Processing (NLP): A field of AI that focuses on the interaction between computers and human language, in particular how to program computers to process and analyze large amounts of natural language data.

Related terms: Speech Recognition, Machine Translation, Sentiment Analysis

Nutrigenomics: The study of the effects of foods and food constituents on gene expression.

Related terms: Nutrigenetics, Epigenetics, Nutritional Genomics

Nutrition Education: Any combination of learning experiences designed to help individuals and communities improve their nutrition and health.

Related terms: Dietary Assessment, Dietary Patterns, Food Environment

Precision Nutrition: An approach to nutrition that takes into account individual variability in genes, environment, and lifestyle for the purpose of delivering more personalized dietary advice.

Related terms: Personalized Nutrition, Stratified Nutrition, Nutritional Phenotyping

Predictive Analytics: The use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data.

Related terms: Data Mining, Big Data, Machine Learning

Recommender Systems: Information filtering systems that seek to predict the "rating" or "preference" a user would give to an item.

Related terms: Collaborative Filtering, Content-Based Filtering, Hybrid Filtering

Sentiment Analysis: The use of natural language processing, text analysis, and computational linguistics to identify and extract subjective information from source materials.

Related terms: Opinion Mining, Emotion AI, Affective Computing

Supervised Learning: A type of machine learning in which the model is trained on a labeled dataset.

Related terms: Unsupervised Learning, Semi-supervised Learning, Reinforcement Learning

Telehealth: The use of digital information and communication technologies to access health care services remotely and manage your health.

Related terms: Telemedicine, Mhealth, E-Health

Unsupervised Learning: A type of machine learning in which the model learns from an unlabeled dataset.

Related terms: Supervised Learning, Semi-supervised Learning, Reinforcement Learning

Virtual Reality (VR): A simulated experience that can be similar to or completely different from the real world.

Related terms: Augmented Reality, Mixed Reality, Virtual Learning Environments

Wearable Technology: Electronic devices that can be worn on the body, typically as accessories or implants.

Related terms: Internet of Things, Mhealth, Wearable Computing.