Critical Thinking and IT Literary

IS 100 Course Description and Goals
Critical Thinking - Lifecycle

The world we live in is increasingly dependent on information and communication technologies. How we acquire information and make decisions in conjunction with how we leverage technology has a direct impact on team and organizational productivity, and significantly determines our personal effectiveness and value.
Critical thinking and information literacy skills through information needs assessment, information gathering, diagnosis, synthesis, deductive and inductive reasoning and reporting and presentation using information technologies.
Course Description and Objectives

This course is an introductory exploration of the fundamental principles of critical thinking, including sound logical reasoning, the analysis of arguments, and the recognition and understanding of fallacies. Information literacy skills will be used throughout the course with critical thinking. The ability to identify, collect, analyze, and synthesize diverse data and information has become an integral part of critical thinking and information literacy.
The objectives of this course are to prepare Students:

- With critical thinking skills and to value the power of critical thinking
- To recognize and understand basic argument forms
- Have the ability of argument formation and information needs assessment
- To identify fallacies
- To think, speak, and write more clearly and logically
- To become information literate
- To become information technology literate
- Have ability to retrieve information in digital environments including web pages and databases retrieval, access, and authentication
- Have the ability of information diagnosis, synthesis, and analysis
- To have the ability of inference and evaluation
- To have the ability of information reporting and presentation
- Interpret and represent information using digital tools to synthesize, summarize and compare information from multiple sources.
- To have an understanding of social responsibilities of information use
Our objective is to: Combine Critical thinking with knowledge of digital technology to solve real world problems

Define ➔ Access ➔ Evaluate ➔ Manage ➔ Integrate ➔ Create ➔ Communicate
Define

Articulate the problem in order to facilitate electronic search for information.

We accomplish this by learning How to create and evaluate an Argument from our Critical thinking book.
Access

Collect information in digital environments including web pages and databases.

- Internet Searches
- Library, Journals, periodicals
- Databases
- Data warehouse
- Data Mining
- Reviewing data in spreadsheets
Evaluate

Judge whether a set of information is sufficient to solve a problem by determining authority, bias, timeliness, relevance, and other aspects of materials and data.

Is the premise True or False
Organize information to make it more accessible and useful.

Tables, reports, Spreadsheet, etc.
Intergrate

Interpret and represent information using digital tools to synthesize, summarize and compare information from multiple sources.
Create
Adapt, apply, design or construct information using visual technology tools.
Word documents
Excel Spreadsheets
Power Point
Web Page
Etc.
Communicate – your problem solution the most effective way

Disseminate information tailored to a particular audience in an effective digital format.

Delivery of your problem/recommendation and or solution/alternative solutions. Tailored to audience.
Types of Assignment

Team Project on supplements

Fallacies – DUI Homicide-First Degree Murder from Clip 20/20

- Have Students watch Clip prior to Introduction of Fallacies. Poll them to see if they would try defendant for murder; teach Fallacies and have them apply fallacies to scenario, may change their mind and see that fallacy of emotion among others created obstacles to critical thinking.
Types of Assignments

Using Excel to present numerical data
Using Data mining and Netflix
  Problem identified by students, solution introduced Data mining which resulted in Netflix making recommendations to their subscribers on which DVD, they would most likely enjoy.

Final Capstone Individual Project, which incorporates entire course.

Define ➔ Access ➔ Evaluate ➔ Manage
➔ Intergrate ➔ Create ➔ Communite findings/conclussions and alternatives
Prepares student for lifelong Learning and Critical thinking

Helps students make critical thinking an indispensable part of their skill set. They will find out things they didn’t know about themselves along the course and make discoveries that can literally change their lives. They will understand that critical thinking can be learned it is a systematic process, and how they have been hindered from achieving this with obstacles in their current thinking and experiences. They are given a foundation, which needs to be further nurtured in future course.

Bonus: Upon completion of course they could seek a Certificate in Critical thinking and IT Literacy, through independent vendors.