

Instructor: Course Title: Luigi DiFranco Application of

Artificial Intelligence

E-mail: Course Meets:

ldifranco@pky.ufl.edu Daily except on

eLearning Wednesdays

Direct Phone: Office Location:

(352) 392-1554 Q501

Office Hours:

scheduled as needed

Please review the information shared within the following links:

2025-2026 Code of Student Conduct

#### **Course Description:**

**Welcome to Applications of AI:** In this course we will step into the role of AI-enabled professionals to build on what you've learned. We will explore more deeply why, when and how to use various AI tools. We will also look at other important aspects of AI such as the importance of data, thinking like an engineer and exploring AI-enabled careers.

Al is now used in every industry. To reflect this, most lessons in this course will involve a unique job or industry to showcase how widely Al can be used. When you are exploring content related to finance, health, the music and entertainment industry and more, remember to be flexible, curious, brave and focused on how data science and Al can help solve real-world problems!

#### **Course Grade:**

The course is a semester with ½ credit grade at 9 weeks and full credit grade in May.



#### Test linked to the course:

Microsoft Azure AI Fundamentals (AI900) (link to more information)

#### **Goals & Standards:**

- 1. Design and evaluate a perception system and its limits.
- 2. Train and evaluate a range of ML models based on specific accuracy, inclusivity, and ethical design criteria.
- 3. Design and evaluate a data set to solve a problem using specific accuracy, inclusivity, ethical design criteria.
- 4. Design AI solutions using embedded computing.
- 5. Explore the characteristics, tasks, work attributes, options, and tools associated with Al-enabled careers.
- 6. Identify how leadership development, school and community service projects and competitive events are integral parts of career and technology education.
- 7. Use appropriate tools to design an AI System to solve problems.
- 8. Characterize important issues related to privacy and security in the development and use of Al-enable technologies.
- 9. Explain the key technical challenges in design and responsible use of AI technologies.
- 10. Set up and use a ML pipeline to solve a problem.
- 11. Appropriately use automated AI services to accomplish common tasks.
- 12. Explain and use design thinking to solve a problem.
- 13. Show how a system is composed and interacts and be able to express verbally, graphically and in writing how the system functions.
- 14. Understand and interpret different types of data.
- 15. Understand how data is accessed, sorted, and stored.
- 16. Generate and tell stories with data.
- 17. Think critically about data.

#### Core Outcomes

- Design Thinking
- Data & Analysis
- Model Training and Deployment
- Model Evaluation & Explanation
- Ethics



## **Link to Florida's CTE Frameworks and Course Standards**

#### **Course Schedule**

First 9 Weeks Units	Second 9 Weeks Units
Unit 1: Machine Learning	Unit 4: Data Access
Unit 2: Computing	Unit 5: Careers
Unit 3: AI Services	Certification Prep and Exam (3 attempts)

## **Required course materials**

- Microsoft Azure Machine Learning Platform
- Code.org
- HelloWordCS.org
- Supplemental in class readings will come from:
  - Various online resources and journal articles

### **Requirements & Procedures**

- Supplies Students need to bring their Chromebook and Charger everyday. All other supplies will be provided as needed (i.e. wired headphones, USB peripherals, worksheets, journals, pencils, pens, etc.)
- Homework all assignments will be completed in class, and will be given extra time at home if needed. Just ask.

# **General Expectations**

## The 4R's

- Responsible: Students must attend and be on time to class.
- Respectful: Students must show respect for each other and the classroom/school space.
- Resilient: Students are willing to take on challenges and use skills to overcome them.
- Ready: Students are prepared to work and learn everyday.



## **Late Work Policy**

If you submit your assignment on or before the due date, you can continue to revise and resubmit it after I have assessed the work, until you achieve mastery. Resubmissions are only allowed if the original work was submitted on time, and assignments are closed for resubmission at the end of each grading period (for report cards). Please notify the instructor when resubmitting assignments for reassessment.

Please note that any work submitted after the due date will not be accepted and will result in a zero for that assignment. Therefore, submit your work on time, even if it's not perfect/complete, as you will have the opportunity to improve it later.

Please communicate if a family or medical emergency would prevent on time submissions.

#### **Communication Protocols**

Students can communicate with me by messaging in the Canvas course, through the Inbox.

Families can communicate with me by emailing me at Idifranco@pky.ufl.edu

### **Electronic Device Policy**

Students must come to class every day with their charged Chromebook. During class, the Chromebook should be used only to participate in the class. Students should not have personal electronic devices out during class at any time for any purpose, unless instructed to do so.

#### Kindergarten-8th Grade

Students may possess a wireless communication device on school property or while attending a school function, but they are not allowed to use it at any time during the school day from the start of the instructional day to the end of the instructional day.

#### 9th-12th Grade

Students may possess a wireless communications device but may only use it outside of class time - or when a teacher gives explicit permission for instructional purposes. Devices must be stored in teacher-designated areas during instructional time.



PK will provide access to telephones for students who need to contact families during times when they are prohibited from using their personal device.

## **Grading Policy and Assessments**

P.K. Yonge's Grading and Credit system is based on our shared beliefs about the purpose of assessment:

- Students should have a clear understanding and shared ownership of learning goals
- Grades should communicate what students know and are able to do both within and across disciplines
- Students should have multiple opportunities to practice, receive feedback, and demonstrate their knowledge and skills
- It is critical for students to develop productive habits of work alongside content and skill development

Туре	Examples	% of Grade
Habits of Work	Work Ethic, Critiques, Discussions, Care of Lab Equipment and Tools, Punctuality, Quality of Work, and Timeliness	5%
Formative	Smaller projects, Class exercises, Sketchbook entries, Notes, etc.	20%
Summative	Major Projects and End of Unit Assessments	75%



The chart below outlines the relationship between numerical grades, letter grades, mastery-language, and credit within our mastery-based system.

Mastery-Language	Range (4-point grade system)	Meets Standard Course Credit Earned
Mastery (A)	3.51 - 4.0	GPA Point 4
Proficient (B)	3.01 - 3.5	GPA Point 3
Approaching (C)	2.51 - 3	GPA Point 2
Beginning (D)	2.01 - 2.5	GPA Point 1
Not Meeting (F)	0.01 - 2.0	No Course Credit
No Evidence	0	No Course Credit

## **Academic Dishonesty**

It is expected that the work you submit in this and all of your courses is your own original work, or if not, contains full acknowledgment of borrowed sources. The following instances are academically dishonest:

- **Plagiarism**: Copying or closely imitating someone else's work without proper attribution.
- **Cheating**: Using unauthorized resources or assistance during exams or assignments.
- Fabrication: Falsifying data, information, or citations in academic work.
- **Collusion**: Collaborating with others on assignments or exams where independent work is required.
- Impersonation: Having someone else complete an exam or assignment on your behalf.
- **Ghostwriting**: Having someone else write or substantially revise your academic work.



- **Unauthorized Access**: Gaining access to test questions or academic materials that were not meant for you.
- **Self-Plagiarism**: Reusing your own previously submitted work without permission or proper citation.
- **Forgery**: Altering or falsifying academic records, documents, or signatures.

Any academic dishonesty will result in the *failure of that assignment as the minimum consequence*; other consequences range from failure of the course to academic probation to dismissal from P.K. Yonge.

ALL instances of academic dishonesty will be reported to the student's counselor, Behavior Coach, and Administration.