CGN 3405: Applied Numerical Methods for Civil Engineering

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University of Central Florida

Class Room: NSC O110; Nicholson School of Communication and Media

February 4, 2026

Contents

1 Points

[**Important**] Make sure you complete each Quiz session before the given due time. If you missed the Quiz, please reach out immediately. Late completion (during exam weeks) would have 10% penalty.

Table 1: Points of class participation, Quizzes, assignments, and exams

Items	**Class**	**Quizzes**	**Assignment**	**Exam 1**	**Exam 2**	**Final Exam**
Points	100	300	400	300	300	600
Portion	5%	15%	20%	15%	15%	30%
Amount	-	300	7	-	-	-

Quizzes questions (300 in total):

- Week 1: $5 + 12 + 14 =$ **31**
- Week 2: $15 + 11 =$ **26**

- Week 3: $13 + 14 + 9 = \mathbf{36}$
- Week 4: 10+14

Progress: **117/300** (February 4, 2026)

2 Teaching Schedule

2.1 Schedule

Please check out **14-week teaching schedule** in Table 2.

2.2 Assignments

Please check out **7 assignments** in Table 2.

2.3 Exams

Please check out **2 written middle-term exams** and the **1 final written exam** in Table 2.

- **Exam 1** (written test, in-class): **2:30PM – 3:20PM, February 20, 2026**

Table 2: Teaching schedule of CGN 3405 (Spring 2026)

Week	Teaching Content	Date	Note
1	Introduction to the Course & Logistics	01/12 01/14 01/16	
2	Mathematical Modeling & Engineering Problem Solving	~~01/19~~ 01/21 01/23	Martin Luther King Jr. Day Release **Assignment 1**
3	Introduction to Python Programming: Part I	01/26 01/28 01/30	
4	Introduction to Python Programming: Part II	02/02 02/04 02/06	 Release **Assignment 2**
5	Modeling and Errors: Part I	02/09 02/11 02/13	
6	Modeling and Errors: Part II	02/16 02/18 02/20	Release **Assignment 3** Review Class ΔΔ **Exam 1**
7	Nonlinear Equations	02/23 02/25 02/27	 Release **Assignment 4**
8	Introduction to Applied Linear Algebra: Part I	03/02 03/04 03/06	
9	Introduction to Applied Linear Algebra: Part II	03/09 03/11 03/13	 Release **Assignment 5**
10	Linear Algebraic Equations	03/23 03/25 03/27	 Release **Assignment 6**
11	Ordinary Differential Equations	03/30 04/01 04/03	
12	Optimization Techniques: Part I	04/06 04/08 04/10	 Review Class ΔΔ **Exam 2**
13	Optimization Techniques: Part II	04/13 04/15 04/17	Release **Assignment 7**
14	Curve Fitting	04/20 04/22 04/24	
15	Final Exam	~~04/27~~ 04/29	No class, self study ΔΔ **Final Exam**