Florida International University  
School of Computing and Information Sciences  

**CEN 4083 — Introduction to Cloud Computing**  
**Course Syllabus**  

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**Instructor**

Ming Zhao, PhD  
Lectures: Tue/Thu 9:30am - 10:45pm in ECS 235  
Office: ECS 363/ECS 265  
Email: ming@cs.fiu.edu  
Office hours: Tue/Thu 3:30 - 4:45pm or by appointment

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**Course Materials**

Videos will be available to FEEDS students (from both FIU and UCF) at [http://netcast.cs.fiu.edu](http://netcast.cs.fiu.edu).  
All other course materials will be available at [http://moodle.cs.fiu.edu](http://moodle.cs.fiu.edu).  
Non-FIU students shall access the online materials using their temporary FIU accounts.

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**Prerequisites**

- Computer organization and data structures  
- Java programming

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**Description**

CEN 4083 covers the following topics:  
- Introduction  
  - Background and history of cloud computing  
  - Cloud computing models  
- Virtualization  
  - Background and history of virtualization  
  - Virtual machines, virtual networks, virtual storage  
- Infrastructure as a Service (IaaS)  
  - IaaS system architecture  
  - IaaS programming  
- Platform as a Service (PaaS)  
  - PaaS system architecture  
  - PaaS programming  
- Big data  
  - Big data system architecture  
  - Big data programming
In addition, in collaboration with IBM, a leading public and private cloud service provider, the instructor will organize a **Cloud Hackathon** using IBM’s industry-leading cloud platforms and resources.

In collaboration with Miami’s local cloud computing companies, the instructor will try to arrange a **field trip** to their cloud datacenter facilities. Non-FIU students are welcome to join too.

**Grading**

Grading will be decided primarily based on 3 to 4 course projects. All projects shall be submitted via [http://moodle.cs.fiu.edu](http://moodle.cs.fiu.edu).

There will be no exams.

There will be 5% to 10% of grade determined based on class participation.

**Policies**

Late submission of assignment will not be graded. There will be **absolutely no** exception unless it is due to **verifiable** cases of illness and emergencies.

All assignments must be done **independently**. Academic dishonesty will be treated **very seriously** according to the Student Academic Misconduct Procedures.