‘To give learners a pathway to support an organization from top down with all organizational components’
Recommended Texts (online/in Library)

- **Course Notes:**
  www.computing.dcu.ie/~mcrane/CA4101EnterpriseArch.html

- **Recommended Text:**

- **Additional Texts:**


2. Enterprise Architecture at Work: Modelling, Communication & Analysis by Marc Lankhorst

3. Fundamentals of Business Process Management by Marlon Dumas

Assessment Details

- 30% Continuous Assessment:
  - Both 2 person group projects
  - Enterprise Architecture Project (10%),
    - Part 1: Zachman Diagram
    - Part 2: Pencil & Paper project
  - BPMN, ER & UML Use Case Project (20%)
    - Done on Signavio
    - UML/ BPMN

- 70% January Exam:
  - Three hours long
  - 4 from 5 Questions
Course Outline

1. **Course Introduction** - scope, objectives.
2. **Fundamentals of Enterprise Architecture**
3. **Business Architecture**
   - Business Processes, Workflow Modelling
   - Business Modelling with BPMN
   - Process Change 1: BP Redesign/Re-engineering
   - Process Change 2: The Quality Movement
   - Robot Process Automation (if time permits)
4. **Technology Architecture**
   - Middleware
5. **Application Architecture**
   - Software for business function execution: SOAs (if time permits)

The Basics: What this Module is About

- *What is an Enterprise Architecture, actually?:*
  - ‘A set of principles, methods & models used to design & realize an enterprise’s organizational structure, BPs, info systems & infrastructure’
- *What’s it ultimately for?:*
  - Intent of an enterprise architecture is to determine how an organization can most effectively achieve current and future objectives.
Components of EA Covered on the Course

The Open Group Architecture Framework (TOGAF)'s Perspective of Enterprise Architecture

Business Architecture:
- Descriptions of an Organization (Business model, MSGs, operating model).
- Business processes & workflows.
- Stakeholders and their roles and relationships.
- Business rules (what the actors must do in a BP)
- A lot about Process Change
  - Process Reengineering & Process Change,
  - Quality Movement
- BPMN, UML Use Case Models

Application Architecture:
- Apps fulfilling business requirements by executing BPs using data architecture.
- Interfaces between applications + between applications and users
Components of EA Covered on the Course (/3)

- Business Architecture (Business Processes, Organization, People)
- Application Architecture (Services)
- Data Architecture (Data, Information)
- Technology Architecture (Hardware, Software, Network)

The Open Group Architecture Framework (TOGAF)'s Perspective of Enterprise Architecture

Technology Architecture:
- Types of Middleware:
  - message-oriented (such as WebSphere MQ),
  - applications-oriented (such as Web Services) or
  - data-oriented middleware
- Briefly:
  - Service Oriented Architectures
  - A little bit about Microservices

Components of EA Not Covered on the Course

- Data Architecture:
  - Metadata:
  - Data models: logical & physical models of data exchanged between BPs, SHs & apps.
A Cautionary Tale....

- A long time ago.... in a University far away... etc. One year in July, many changes were made to a course
- This would make life MUCH better for students:
  - More interesting, up to date modules
  - Change in delivery modes etc.
- These changes were sent to University Central Admin
- Lecturers
  - Got new Modules
  - Consigned old Lecture material to /usr/local/bin
- Unfortunately, somehow changes never arrived...
- Students registered on old modules that didn’t really exist
- Result: CHAOS....

A Cautionary Tale....

- Some Questions:
  - Who was impacted by this chaos?
  - Who was to blame?
  - What was the cause?
  - How could this have been avoided?
Questions??

https://www.youtube.com/watch?v=qDI2oF1bASk