



كلية الحاسبات والذكاء الاصطناعي

Calculus

Description

Dr. Ahmed Hagag

**Faculty of Computers and Artificial Intelligence
Benha University**

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Basic Course Information

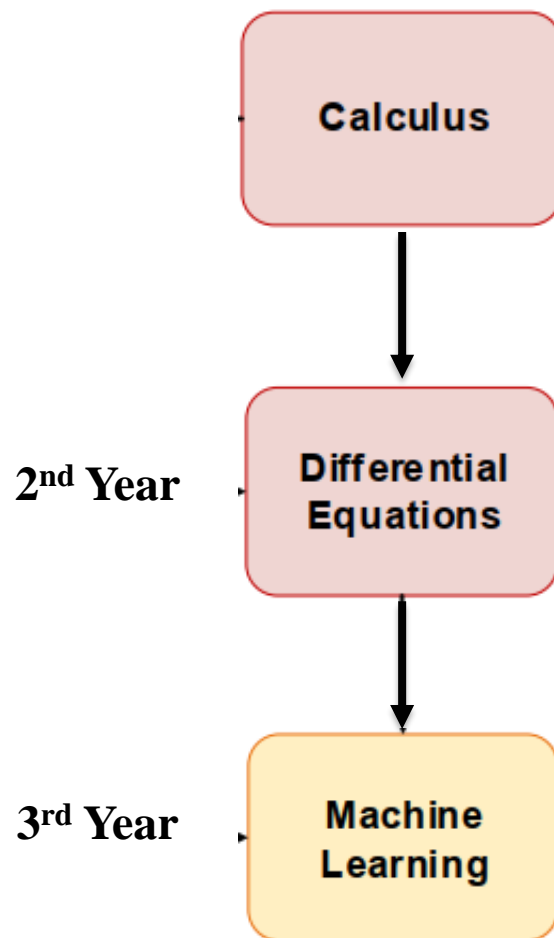
- Course code: **BS101**
- Course name: **Calculus**
- Level: **1st Year / B.Sc.**
- Course Credit: **3 credits**
- Instructor:

Dr. Mustafa Hassan

Dr. Ahmed Hagag

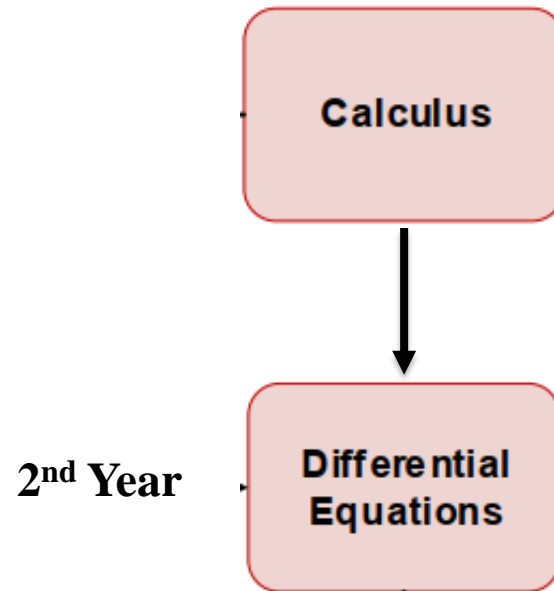


Flowchart (CS)



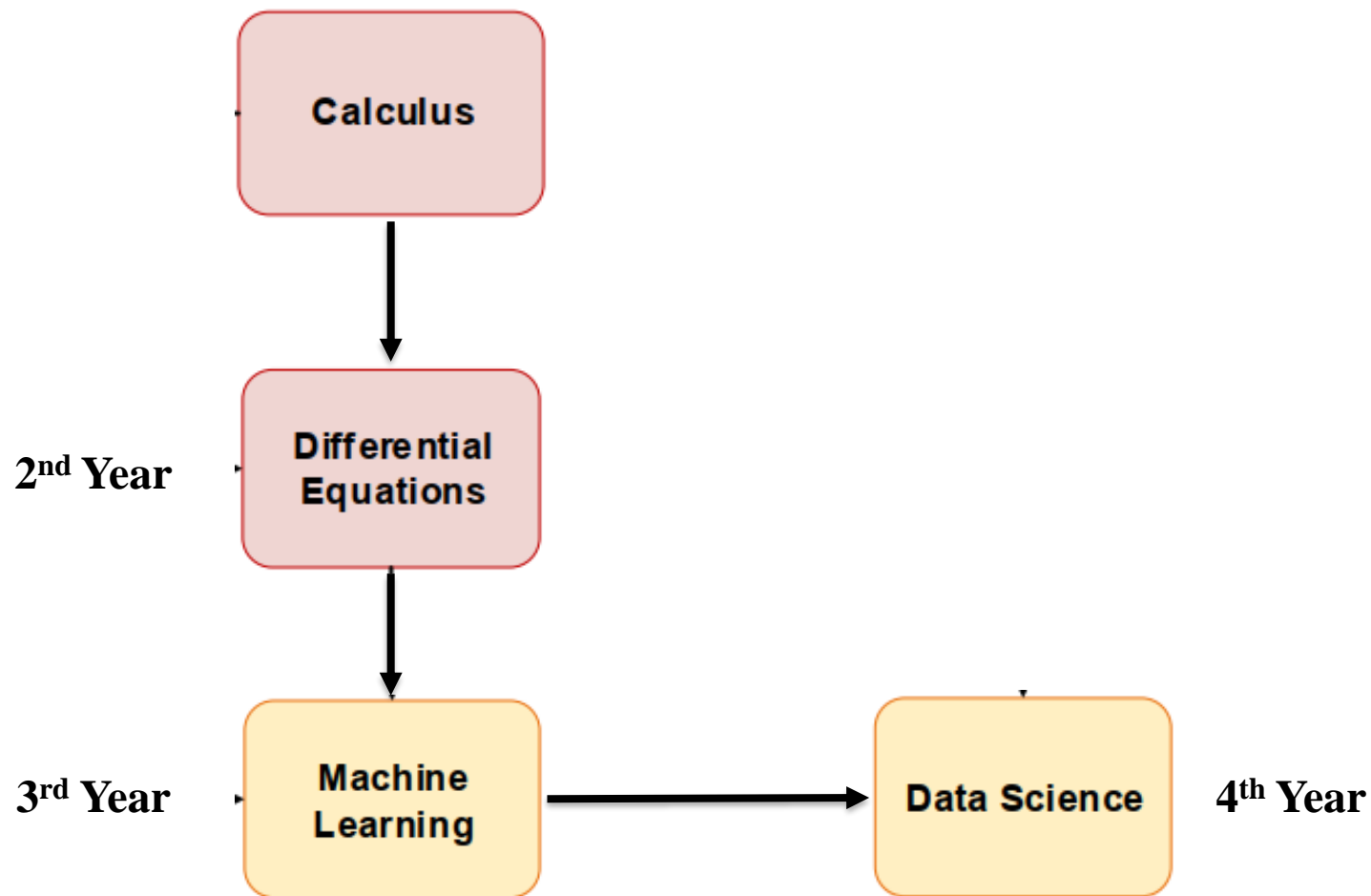


Flowchart (IS)



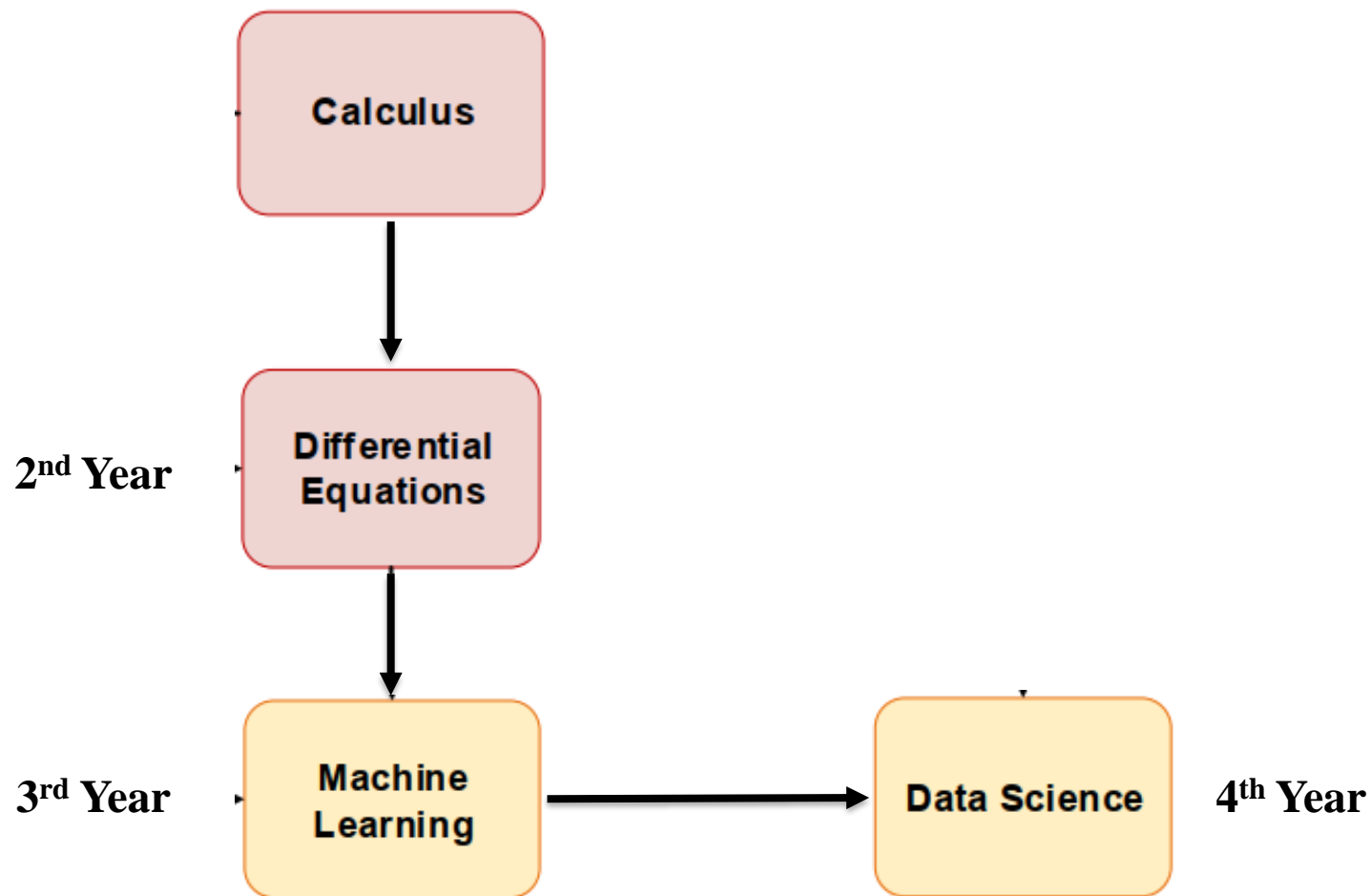


Flowchart (SC)





Flowchart (AI)





Assessment

Final Exam

50

الامتحان النهائي

Section

15

حضور و واجبات
ومشاركة في السكاشن

Midterm

20

منتصف الفصل

Oral

10

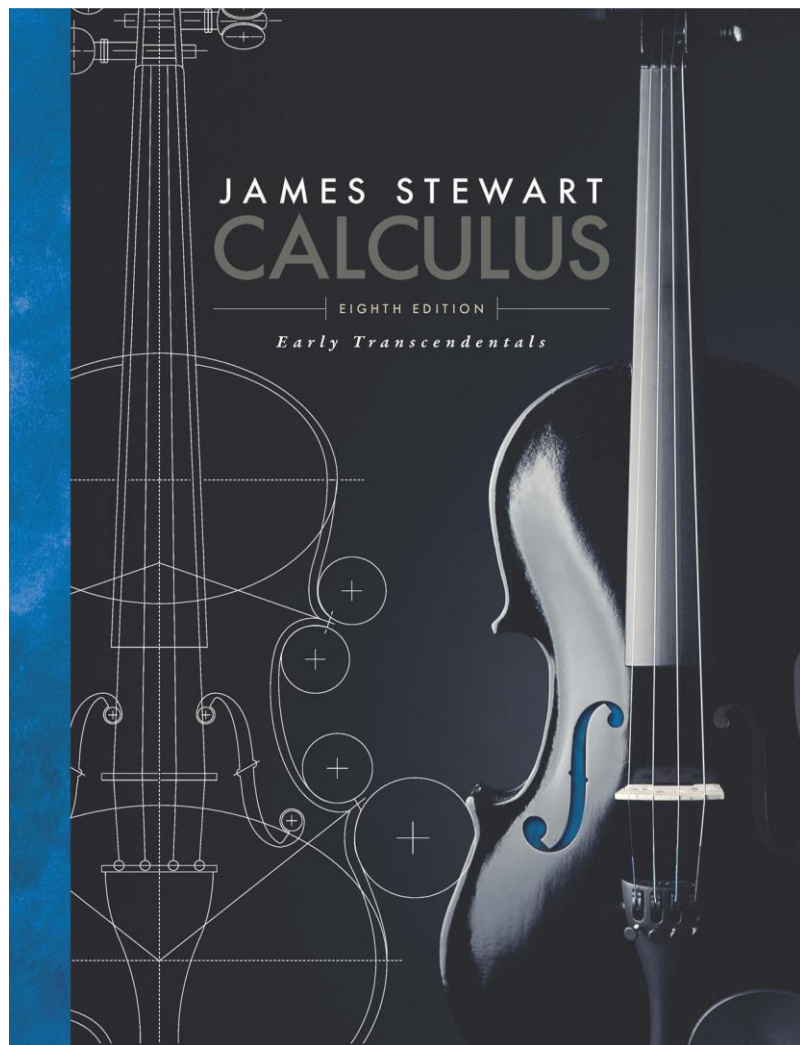
الشفوي

Attend

5

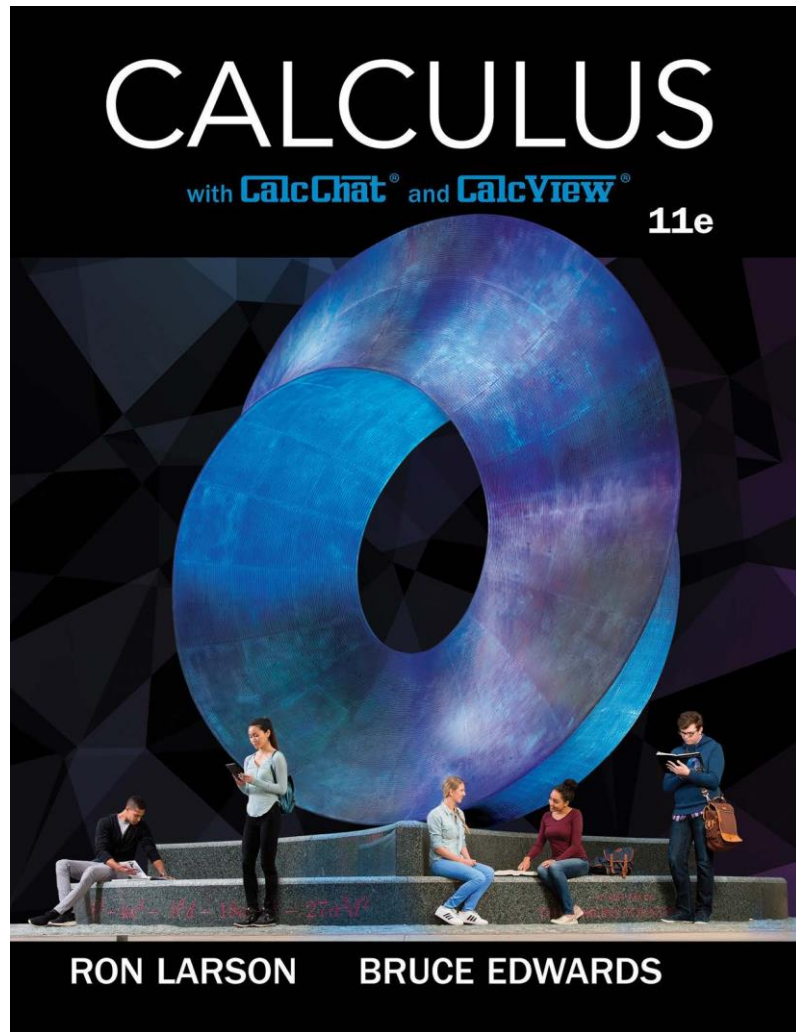
حضور

Lectures References (1/3)



Calculus
James Stewart
8 Edition

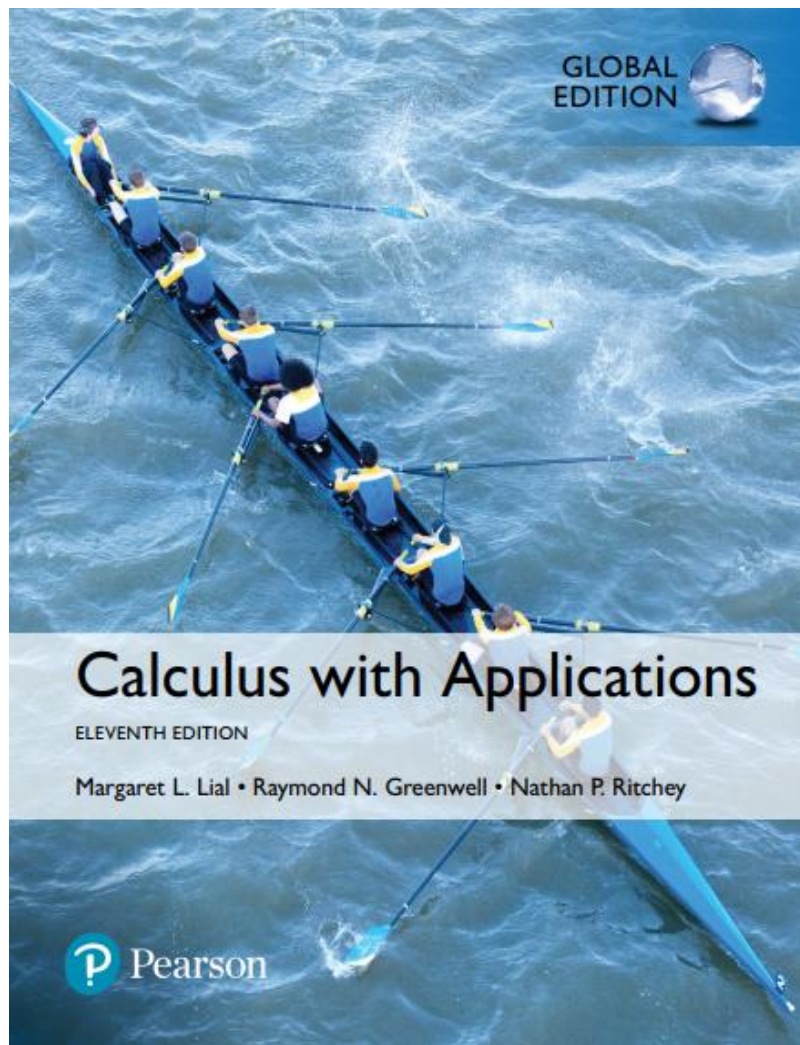
Lectures References (2/3)



Calculus

Ron Larson and Bruce Edwards
11 Edition

Lectures References (3/3)



Calculus with Applications

Margaret Lial, Raymond Greenwell and
Nathan Ritchey
11 Edition

Calculus

Differentiation & Integration

1665 – 1675



Isaac Newton
(England)



Gottfried Leibniz
(German)

Calculus

Differentiation & Integration

1665 – 1675

Limits

1821



Augustin-Louis Cauchy
(France)

Calculus

Differentiation & Integration

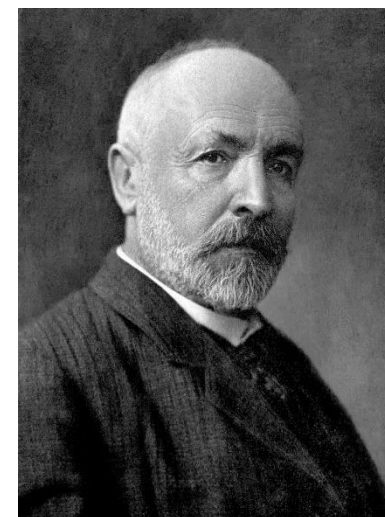
1665 – 1675

Limits

1821

Set Theory

1874



Georg Cantor
(German)

Calculus

Differentiation & Integration

1665 – 1675

Limits

1821

Set Theory

1874

Function

From the 12th Century.
Concept function in 1673



Gottfried Leibniz
(German)



Calculus

Differentiation & Integration

1675

Limits

1821

Set Theory

1874

Function

1673

Numbers



Calculus

Differentiation & Integration

3

1675

Limits

2

1821

Set Theory

1874

Function

1673

Numbers

1



Course Syllabus

- Chapter 1: Numbers, Sets, and Functions.
- Chapter 2: Limits and Continuity.
- Chapter 3: Derivatives and Differentiation Rules.
- Chapter 4: Applications of Differentiation.
- Chapter 5: Integrals.
- Chapter 6: Techniques of Integration.
- Chapter 7: Applications of Definite Integrals.

Thank You

Dr. Ahmed Hagag

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