

University of Technology
Computer Engineering Department

Academic Year 2023 - 2024

Second Year – Second Semester – Computer Networks Branch



U222	Engineering Mathematics IV	2 Hours/Week	2 Units
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Contents of Syllabus	Hours
Fourier series	
• Fourier even & Fourier odd.	4
• Half-range expansion series.	4
• Applications.	2
Partial derivatives, Functions of several variables	
• Partial Differentiation Equations	2
• Definitions.	1
• Properties.	2
• Total differential.	1
• Chain rule.	1
• Gradient & Directional derivatives.	2
• Maxima, minima & saddle points for the surface $z = f(x,y)$.	1
Double & Triple integrals.	
• Application of integration: area & volume	5
• Polar Coordinates and Graphs	5

References

1. **Thomas Calculus**”, 12thED, George B. Thomas Jr., Maurice D. Weir, Joel R. Hass, 2009 Differential Equations (Schaum’s Outlin Series).
2. Calculus (Haward Anton).
3. Advanced Engineering Mathematics (Erwin Kreyszig).

اسم التدريسي: المدرس ازهار مالك انثير



Computer Engineering
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