

Form (H)
Short course description

Course title: Introduction to Linear Programming	Course number and code: Math 456
Previous course requirement: Math 246	Language of the course: Arabic
Course level: 8	Effective hours: 3

Course description

وصف المقرر :

<ul style="list-style-type: none">• Formulation of LP• Graphical Solution of LP• Simplex Method• Sensitivity Analysis• Duality• Networks	<p>حل مسائل البرمجة الخطية بالرسم وباستخدام طريقة السمبلكس، وتحليل الحساسية، والثنائية والشبكات</p>
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Course objectives

أهداف المقرر

Formulation of LP	• صياغة مسائل البرمجة الخطية
Graphical Solution of LP	• حل مسائل البرمجة الخطية باستخدام الرسم
Simplex Method	• طريقة السمبلكس
Sensitivity Analysis	• تحليل الحساسية
Duality	• الثنائية
Networks	• الشبكات

Learning outcomes (understanding, knowledge, and intellectual and scientific skills)

After studying this course, the student is expected to be able to:

<ul style="list-style-type: none">• Formulate LP problems.• Describe the feasible region.• Solve Lp graphically	
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<ul style="list-style-type: none"> • Solve Lp with simplex method • Define sensitivity analysis, and find the range of variation. • Outline the solution of duality problems • Describe networks, and solve shortest path and maximum flow. 	
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Textbooks adopted and supporting references

Title of the book	Author's name	Publisher's name	Date of publication
Introduction to linear programming	Ibraheem Alolyan	King Saud University	2007