



# PLANES DE ESTUDIO

## MA2010 Differential Equations

SPANISH

**CIP:** 270101 Mathematics, General.

**C-L-U:** 3-0-8

Academic department that offers it:  
Mathematics

Graduate Programs who offer them:

5 IA11, 4 IBN11, 4 IBT11, 4 IDA11, 3 IC 11, 4 IDS11, 3 IFI11, 3 IIA11, 4 IIS11, 4 IMA11, 3 IMD11, 4 IME11, 4 IMI11, 3 IMT11, 4 INCQ13, 4 INT11, 3 IQA11, 3 IQP11, 4 ISD11, 3 ITE11, 3 ITS11, 4 IAB11, 4 IIN12, 3 ITM11, 4 LCQ11  
Certificates

Requirement:  
(MA1017 )

Equivalence:  
MA2001

General aim of the course:

Upon completion of this course, students will be able to:

- Identify and understand differential equations as a mathematical concept and as a model for studying particular phenomena in the area of engineering.
- Use different methods to solve differential equations and understand the meaning of the solutions in terms of the problem in question.

Teaching and learning techniques:  
Collaborative learning

Bibliography:

TEXT BOOKS:

\* Zill, Dennis G., Ecuaciones diferenciales con aplicaciones de modelado , 9a ed., México : Cengage Learning, 2009, spaeng, 9708300551, 9789708300551

BOOKS FOR CONSULTATION:

- \* Carmona Jover, Isabel., Ecuaciones diferenciales , 4a ed., Addison-Wesley , 1998, spa, 9684441509
- \* Boyce, W. y DiPrima, R., Ecuaciones Diferenciales y problemas con valores en la frontera, México: LIMUSA, 2002, Español,
- \* Carmona Jover, Isabel, Ecuaciones Diferenciales, México: Pearson, 2012, Español,
- \* Lomen, David , Ecuaciones diferenciales a través de gráficas, modelos y datos , 1a ed., México, D.F. : Compañía Editorial Continental, c2000, spaeng, 9702400236, 9789702400233
- \* Kreyszig, Erwin., Matemáticas avanzadas para ingeniería , 3a ed., México, D.F. : Limusa Wiley, c2008, spaeng, 9681853105 (v. 1), 9681853113 (v. 2), 9789681853105 (v. 1), 9789681853112 (v. 2)