



# DOTTORATO DI RICERCA IN INGEGNERIA MECCANICA

DIPARTIMENTO DI INGEGNERIA MECCANICA, NUCLEARE E DELLA PRODUZIONE  
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## Avviso di corso breve

# Mechanics of Composite Structures

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Programma:

**Lecture 1, Mercoledì 16/05/07 15.00-17.30 aula DIMNP**

COMPOSITE MATERIALS:

Preliminaries

Definitions

Properties to be improved

Classification of composites

Mechanical behaviour of a lamina

**Lecture 2, Giovedì 17/05/07 15.00-17.30 aula DIMNP**

STRUCTURAL ANALYSIS OF  
LAMINATED COMPOSITE PLATES:

Classical Laminate Plate Theory,

First-Order Shear Deformation

ANALYTICAL SOLUTIONS OF RECTANGULAR PLATES (Navier's Solutions):

Response in Bending, Vibration, Buckling.

**Lecture 3, Venerdì 18/05/07 9.00-12.30 aula DIMNP**

FINITE ELEMENT ANALYSIS OF COMPOSITE LAMINATES

DESIGN OF COMPOSITE MATERIALS

LAYERWISE THEORY OF COMPOSITE LAMINATES