



COURSE: Antennas

TEACHER: Vincenzo Fiumara

e-mail: vincenzo.fiumara@unibas.it

website:

Language

ECTS: 6

n. of hours:52

Academic year: 2015-16

Campus: Potenza

Semester: I

TOPICS

Transmitting and receiving antennas.

TEACHING METHODS (please tick one or more options)

Theoretical lessons

Tutorials in classroom

Tutorials in laboratory

Project works

Technical visits

Other activities (please specify) _____

TEXTBOOKS

C.Gennarelli, F.D'Agostino, Elementi di teoria delle antenne, Florio Edizioni Scientifiche.

R.E.Collin, Antennas and Radiowave Propagation, Mc Graw Hill.

ON-LINE EDUCATIONAL MATERIAL

web address:

LEARNING OUTCOMES

Ability to analyze and design antenna systems.

REQUIREMENTS

Fundamentals of mathematics and physics.

EVALUATION METHODS (please tick one or more options)

Intermediate verifications

Written examination

Discussion of a project work

Practical test

Oral examination

Other methods (please specify) _____

DETAILED CONTENT

Radiation from electric and magnetic sources. Linear wire antennas. Hallen's integral equation. Method of moments. Transmitting and receiving antennas. Friis transmission formula. Reciprocity theorem. Duality theorem. Equivalence theorem. Image theorem. Antenna arrays. Linear arrays. Binomial array. Fourier synthesis. Phased arrays. Planar arrays. Yagi-Uda antennas. Reflector antennas (fundamentals). Aperture antennas (fundamentals). Environmental impact of electromagnetic radiation.

EXAMINATION SESSIONS (FORECAST)

03/02/2016, 24/02/2016, 18/05/2016, 13/07/2016, 14/09/2016, 21/12/2016.



Università degli Studi della Basilicata
Scuola di Ingegneria

SEMINARS BY EXTERNAL EXPERTS YES NO

FURTHER INFORMATION
