



---

COURSE: WATER MANAGEMENT

---

ACADEMIC YEAR:2016/17

---

TYPE OF EDUCATIONAL ACTIVITY: Characteristic

---

TEACHER: SALVATORE MANFREDA

---

e-mail: [salvatore.manfreda@unibas.it](mailto:salvatore.manfreda@unibas.it)

web: <http://www2.unibas.it/manfreda>

phone: 0971205139

mobile (optional):

---

Language: italian

---

ECTS: 9.0

n. of hours: 51lessons;  
30 tutorials/practice.

Campus: Potenza  
School:  
Program:

Semester: I

---

#### EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course aims to provide the project principle for water management and advanced methodology in hydrological application.

---

#### PRE-REQUIREMENTS

Hydraulic, Hydraulic construction and hydrology

---

#### SYLLABUS

Water Management and water requirements,  
Water balance,  
The water requirements in agriculture and for drinking water,  
Water availability and management,  
Statistic of high and low extremes (drought and floods);  
Derived distribution applied in engineering applications;  
Design of fluvial structures;  
Design of open channels;  
Derivation structures;  
DAMS;  
High pressure pipelines;  
Hydropower plants;  
Dissipation basins;  
Quality of water in agriculture;  
Soil drainage;  
Pumping systems;  
Irrigation systems;  
Saving water tecnques in agriculture;  
Vulnerability od ground water resources.

---

#### TEACHING METHODS

Theoretical lessons  
Tutorials in classroom  
Project works

---

#### EVALUATION METHODS

Discussion of a project work and oral examination

---

#### TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

On-line educational material on: <http://www2.unibas.it/manfreda>

Manfreda, S., V. Iacobellis, M. Fiorentino, Appunti di Idrologia Superficiale, Aracne Editrice, pp176, 2010 (ISBN: 978-88-548-3203-9).

---



---

---

INTERACTION WITH STUDENTS

The teacher will be available for interaction with the students on Thursday and Friday.

---

---

EXAMINATION SESSIONS (FORECAST)<sup>1</sup>

Riportare le date inserite nella scheda in lingua italiana

---

---

EVALUATION BOARD

Salvatore Manfreda, Mauro Fiorentino, Ruggero Ermini, Maria Rosaria Margiotta

---

---

SEMINARS BY EXTERNAL EXPERTS    YES     NO

---

---

FURTHER INFORMATION

---

---

<sup>1</sup> Subject to possible changes: check the web site of the Teacher or the Department/School for updates.