13th International Conference « EUROPE-INBO 2015 »
for the implementation of the European Water Directives

Ecological quality and management at a river basin level (IPSP)

On behalf of the participating staff in IPSP
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IPSP: Ecological quality and management at a river basin level
Ecological quality and management at a river basin level
http://www.bio.auth.gr/dpms/default.htm
Interdisciplinary Postgraduate Study Programme (I.P.S.P.)
"Ecological quality and management at a river basin level"

Start Time: Academic year 2007-2008

Funding: None

Responsible institutions: The Schools of Biology, Geology and Civil Engineering.
A Selection Committee evaluates the candidates according to points awarded to criteria for admission

Duration of studies/total workload: 3 semesters, 90 ECTS.

All courses/projects are compulsory: eight (8) courses, completion of internship during one month (September), a case study of a basin done in groups, MSc thesis/student.
Programme of Study: IPPS Ecological Water Quality and Management at a River Basin Level

Collaborating Schools:
- Biology
- Geology
- Civil Engineering

Cycle / Level: 2nd / Postgraduate

Academic Year: 2014 - 2015

<table>
<thead>
<tr>
<th>1st semester</th>
<th>2nd semester</th>
<th>3rd semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Code</strong></td>
<td><strong>Title</strong></td>
<td><strong>ECTS</strong></td>
</tr>
<tr>
<td>1</td>
<td>Physical functions of a river basin</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Methods of sampling, Typology, Remote sensing, GIS</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Land use. Human pressures. Impact assessment</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Monitoring of the ecological quality. Biotic indices</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Assessment of the ecological quality and classification</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Socioeconomic management. Environmental education and awareness. Management Authorities of protected areas. Legislation</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Simulation alternative scenarios. Management at a basin level</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Restoration of aquatic ecosystems</td>
<td>2</td>
</tr>
</tbody>
</table>
Study programme

1st semester (30 ECTS)

Students of the I.P.S.P. must attend successfully 8 modules (concerning background-general knowledge, discipline, skill development).

2nd semester (30 ECTS)

They must perform their Internship working protocol and deliver the results of a intergraded case study on a basin which is be presented and examined by members of the faculty staff. A week later a report on this case study is delivered with all the corrections proposed by the above examiners.

3rd semester (30 ECTS)

The student must prepare his/her Thesis work. This is supervised by 1-2 staff members and presented to the public and to a jury of 3 member staff.

At the end of the presentation of the thesis work

Students must organize (including the fund raising) a one day's meeting where they present their Case Studies or/and their thesis work to stakeholders (students, professors and relative administrative authorities, private sector).
Study programme

1st semester (30 ECTS)

Students of the I.P.S.P. must attend successfully 8 modules (concerning background-general knowledge, discipline, skill development).

2nd semester (30 ECTS)

They must perform their Internship working protocol and deliver the results of an intergraded case study for a river basin in a written report and present it orally to examiners of the faculty staff.

3rd semester (30 ECTS)

The student must prepare his/her Thesis work. This is supervised by 1-2 staff members and presented to the public and to a jury of 3 member staff.

At the end of the presentation of the thesis work

Students must organize (including the fund raising) a one day’s meeting where they present their Case Studies or/and their thesis work to stakeholders (students, professors and relative administrative authorities, private sector).

Evaluation of the modules and teachers-Internship evaluation by the entities
Organogram with the relevant steps that the students follow when they undertake a case study in river or lake studying the water and habitats' quality.
Study programme

1st semester (30 ECTS)

Students of the I.P.S.P. must attend successfully 8 modules (concerning background-general knowledge, discipline, skill development).

2nd semester (30 ECTS)

They must perform their Internship working protocol and deliver the results of a intergraded case study on a basin which is be presented and examined by members of the faculty staff. A week later a report on this case study is delivered with all the corrections proposed by the above examiners.

3rd semester (30 ECTS)

The student must prepare his/her Thesis work. This is supervised by 1-2 staff members, presented publicly and examined by a jury of 3 member staff.

At the end of the presentation of the thesis work

Students must organize (including the fund raising) a one day’s meeting where they present their Case Studies or/and their thesis work to stakeholders (students, professors and relative administrative authorities, private sector).
## Study programme

<table>
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</tr>
<tr>
<td>2nd semester</td>
<td>30</td>
<td>They must perform their Internship working protocol and deliver the results of a integrated case study on a basin which is be presented and examined by members of the faculty staff. A week later a report on this case study is delivered with all the corrections proposed by the above examiners.</td>
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<td>3rd semester</td>
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At the end of the presentation of the thesis work:

Students must organize (including the fund raising) a one day’s meeting where they present their Case Studies or/and their thesis work to stakeholders (students, professors and relative administrative authorities & private sector).
The graduate student of the I.P.S.P.

Has acquired a systemic approach for monitoring water ecosystems and management of watersheds and concern of the environment, society and sustainable development after the completion of the theoretical courses, the laboratory work, internship and field work concerning an intergraded case study.

Upon the termination of the programme requirements the student handles:

- Data bases (MS Access)
- Bibliographic bases (e.g. Refworks)
- Logistic platforms like Blackboard, remote sensing
- GIS, CORINE CLC 2000, simulation models, IMPRESS, DSPIR, SWOT analyses
- Univariate and multivariate analyses (e.g. CLUSTER, CANOCO, FUZZY)
Διαστημικό Μεταπτυχιακό Πρόγραμμα Σπουδών

Οικολογική ποίότητα και διαχείριση υδάτων σε επίπεδο λεκάνης απορροής

Των Τμημάτων Βιολογίας, Γεωλογίας και Πολιτικών Μηχανικών του Α.Π.Θ.

82 Internship Centers, Institutions, Ministries, Private companies

70 Case studies

70 Master Theses

>30 congresses

>10 scientific articles

>5 chapters in books

10 students follow PhD studies
Erasmus/Mundus incoming students for an internship at IPSP or for the whole study programme and outgoing students from the IPSP for their internship at European Institutions

✓ 7 incoming students from Europe

(Universitat Autonoma de Madrid, University of Amsterdam etc)

✓ 2 MUNDUS incoming students (Bangladesh+China)

✓ 2 outgoing students from the IPSP to European Institutions
Field & laboratory work
MUSEUM MATERIAL OF BENTHIC MACROINVERTEBRATES (MuMaBeMa)

http://www.bio.auth.gr/mumabema
Thank you for your attention