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ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ

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EXTERNAL EVALUATION REPORT

DEPARTMENT OF FORESTRY & NATURAL ENVIRONMENT MANAGEMENT

TECHNOLOGICAL EDUCATIONAL INSTITUTE OF LARISSAS –
KARDITSA BRANCH

Version 1.0

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External Evaluation Committee

The Committee responsible for the External Evaluation of the Department of Forestry & Natural Environment Management of the Technical Institution of the Technological Educational Institute of Larisa – Karditsa Branch consisted of the following four (4) expert evaluators drawn from the Registry constituted by the

1. Dr. Aikaterini DOUNAVI
Forest Research Institute of Baden-Wuerttemberg, Germany

2. Dr. George BROFAS
NARCEF, Institute of Mediterranean Forest Ecosystems and Forest Products Technology

3. Dr. Nicolas-George ELIADES
Natural Conservation Unit, Frederick University, Cyprus

4. Dr. George LYRINTZIS
NARCEF, Institute of Mediterranean Forest Ecosystems and Forest Products Technology

Introduction

The members of External Evaluation Committee (EEC) met on May 24th, 2010, in Athens, in order to visit the Department of Forestry & Natural Environment Management of the Technological Educational Institute of Larisa – Karditsa Branch, between May 24th and 26th, 2010. Due to unexpected reasons Prof. Dimitrios Argyropoulos, president of the Committee, was not present. After telephone communication with Prof. Ioannis Vlachos, member of HQAA, Dr. Aikaterini Dounavi was arranged to be the coordinator. The group arrived in Karditsa in late afternoon of May 25th. In the hotel the members of EEC met the OMEA for a brief discussion and were informed about the evaluation of the Department. Soon after the EEC met with the TEI President (Prof. Ioannis Kokkoras) and a faculty member of the Karditsa branch for dinner. The latter was conducted in an atmosphere of cordiality, hospitality and professionalism. It included a brief introduction on the Institute's objectives and operational overview, followed by discussion and clarification of many issues regarding the TEI and the evaluation process.

On the May 26th, the EEC visited the campus of Karditsa Branch and particularly the Department of Forestry & Natural Environment Management. Upon arrival, the team was greeted by the TEI Vice-President (Prof. Pantelis Ypsilantis), while the Head of the Department informed the EEC about the agenda of the day visit. The Vice-President introduced the EEC into the TEI's objectives, the different academic aspects and the major goal(s) of the Internal Evaluation Progress of each Department in general. Subsequently, the committee had a long meeting with Internal Review Committee (IRC) members involved in the Department's internal evaluation. The IRC made a full introduction and gave detailed information on the current and the long-term goals and objectives of the Department. The Director concluded with an overview of the Department's scholarly activities, which was followed by discussion. In addition, the IRC gave the new curriculum to the EEC, in force from September 2010, as well as a hardcopy of the Internal Review. Thereafter, the EEC had a meeting with all permanent academic faculty members and discussed some of the pressing and important issues concerning the Department's structure and operation. The committee members asked specific clarification questions related to the internal evaluation and many others associated with issues not fully covered by the report. All attendees participated in the discussion. During these meetings the committee gathered a significant amount of information and clarifications that provided a more complete and global view of the Department.

The members of EEC, upon completion of the meeting with the Department's academic staff, had the opportunity to meet with the administration support staff (one person). The administration support staff works in the Department Secretariat. The secretary described daily operations of the Secretariat; here the EEC should stress the efforts that the staff makes to support student and faculty activities. With great content, the EEC witnessed the existence of a running electronic system available to students for obtaining forms and carrying out registration-related activities through the internet. However, the secretary mentioned the negative effect that this system could have on the secretary activities in the near future, since operating the system strongly requires more personnel in the secretariat.

Lastly, the EEC met a group of undergraduate students alone from faculty and staff members. After a brief introduction of our backgrounds and the EEC's objectives, the students introduced themselves and discussed issues related to the curriculum, as well as to

training and employment opportunities after graduation. The meeting was open and frank. Students discussed specific problems related to:

- curriculum and especially the “chain-type” courses
- the overlapping of teaching periods with field trips and lab courses between different semesters
- the need for more field training, in the concept of an organized summer camp
- the inconsistency in the quality of the meals in the student restaurant, as well as the disagreement between the written menu and the meals actually served

After a brief lunch break in the TEI restaurant, the EEC had the opportunity to visit three of the Department labs, in order to evaluate their infrastructure and equipment.

The second day, the EEC continued the visit the rest of the laboratories, the library and the students’ dormitories. Early in the afternoon the EEC departed to Athens, where formulated the report.

A. Curriculum and Teaching

To be filled separately for each undergraduate, graduate and doctoral programme.

A1. Curriculum

The Department is part of the Technological Educational Institute (TEI) of Larisa at Karditsa Branch. It offers an undergraduate program and no postgraduate program is actually in process.

The goals and aims of the Department are to provide complete and harmonized knowledge reflecting the needs of future employers in the public and private sectors. In addition, the Department offers high quality education and research on the applied forestry science. The curriculum covers current environmental needs of society with emphasis on forestry aspects, covering mainly applied biological and technical disciplines. Furthermore, the coursework is designed to tender a global perspective concerning sustainable management and conservation of natural resources. The curriculum is implemented effectively and corresponds to the overall scope and objectives of the Department.

Social aspects and criteria with emphasis on forestry and environmental approach, as well as job profession designations were taken into account in curriculum design and development. Following the development and the needs of the market, the curriculum has been revised three times since 1986. Our observations and comments refer to the current coursework, as a final revised coursework will be gradually applied by September 2010.

The basic studies duration is eight semesters, including six months of practicum (practical placement). The curriculum includes 40 courses of which 34 are compulsory and 6 are electives. A graduating thesis is compulsory. This one-stream curriculum and does not allow specialization in areas of high demand, like natural hazards, forest fire prevention and suppression, wildlife management and conservation, climatic change in natural ecosystems. This could be improved by offering more electives within and between the different Departments of the TEI.

The Department, following new scientific trends and demands, has already modified the curriculum, which will be applied from the new academic year—as mentioned above.

The EEC found a well-structured formal process to track the professional development and the careers of the alumni through a Special Career Office.

A weak point is the divergence between theory and laboratory courses. The students mainly attend laboratory courses, since they are mandatory, while the participation in the theoretical courses is significantly lower. The existence of theoretical and laboratory hours for each course, also for cases that do not require both, creates the problem of hours practically lost instead of being dispensed in really useful courses. This problem could be overcome by merging some laboratory and theoretical courses in one course and give free place in the curriculum for actually important courses.

Additionally, the repeated examinations of one or many failed courses in combination with the current system in both theoretical and practical parts result in a confusing and incoherent sequence of attendance. Consequently, the students do not participate in theoretical courses, as well as at field trips and they delay to graduate.

The existing structure sequence of the courses as it applied in the “chains” is considered from the EEC members to be satisfactory.

TEI students enroll either in September or February regarding their overall entrance exam notes. Consequently, high administration, teaching effort and time is spent without any reason. The EEC strongly suggests enrolment in the program only once a year (September), since this will optimize the time distribution in the curriculum and human hour input.

A mandatory course entitled “Introduction to Forestry” is highly recommended to be included in the first semester in order to initiate and familiarize the students with forestry aspects. The absence of field training during the summer from the Department’s curriculum is a weakness identified by all, i.e., faculty, students and the EEC. This is surprising considering the applied nature of the subject matter. It is suggested that:

- the field trips should be organized as mandatory, should be interdisciplinary (no more than three courses), and performed on a day per week, which should be kept free from other courses and activities in the TEI,
- the laboratory hours for courses of practical implementation should be realized mainly in the forest, and
- summer camp should be organized in a permanent forest site with all the facility (i.e. living and education for theoretical and practical training), in order to provide the students with the essential elements of forestry practice. Institutional limitations should be overcome.

The educational level of students accepted in the Department is relatively low both in basic knowledge and foreign languages, mainly due to the fact that the entrance system in the higher education institutions allows the students from classical section to enter in the TEI.

The critical thinking is promoted through teamwork among students in order to prepare oral presentations on specific project in the frame of the courses. Additionally, a course entitled “Seminar” is included in the curriculum, increasing critical thinking and bringing to the students current scientific developments. It is worthy to mention that a course entitled “Code of ethics” is offered to the students in order to know their rights and obligations.

The EEC consider the overall undergraduate program as modern and successful although it believes that ameliorated program with options on specific subjects should make the Department more attractive, useful and competitive for the students’ career.

A2. Teaching

The majority of the theoretical courses are carried out through lectures with the support of electronic means (power point presentations). The main teaching methods of the laboratory courses focus on applications of the theory. Project assignments are required as homework and are presented as individual- or teamwork. Although the teaching methods are considered from EEC, faculty members and students as satisfactory, the average duration of the studies in this Department is 11 semesters, while the official period is 8 semesters.

During each semester every course is completed with field training, which contributes essentially in the education of the students, who demand more field trips with longer duration. In this direction, the establishment of an arboretum and herbietum in the open area of the Department campus is suggested by the EEC.

Mid-term exams are not mandatory even if they are weighted by 40% of the final grade and generally benefit the students.

The total number of official permanent faculty is 24, although only 9 of them are currently covered; however, five new positions are in process to be recruited. The teaching is supported from 46 temporary faculty members. The teaching permanent staff/student ratio is 2,5% and the non-permanent staff/student ratio is 5,3%, which are considered to be relatively low. Temporary teaching staff that focuses exclusively on teaching does not contribute to the rest of the Department's activities. The non permanent staff offers an essential support of the teaching process. Nevertheless, the EEC considers that the high percentage of the non permanent staff, which is occasionally replaced, cannot ensure the continuity of the concepts of the courses. According to the faculty, this problem can in some cases be solved by making long time contracts for the non permanent staff. Another point mentioned from the EEC is, that the non permanent staff in many cases is not chosen to bring new aspects and concepts in the field involved but mostly to support teaching needs in already existed courses. In these cases, more emphasis should be given from faculty to select the non permanent staff according to the supplemental knowledge that this could offer to the course.

Although the faculty members are included in many different committees to solve practical problems of the TEI, consuming much of their work and leisure to administrative purposes, their overall availability to respond and support students is considered to be satisfactory.

Most of the laboratories are well equipped to adequately support course implementation and research activities. The absence of technical assistants in the laboratories is critical. In some cases, TEI students assist the laboratory activities under supervision of a permanent faculty member- while carrying out a part of their "six-month practical placement" (practicum). This approach can not replace the experience and professional expertise of the technical staff. Additionally, the EEC considers that this process reduces the effective practical duration of the "six-month placement" and consequently minimizes the field and professional experience.

All faculty members have developed their own respective course sites within the

Department's portal. Within each course site, the teacher is responsible for introducing and updating the teaching material, as well as providing links to relevant subject matters on the web (e-class). The hardware facilities, including server of huge memory capacity and several computer units with advanced software completely cover the students' demands.

Examinations are mandatory for all courses. In addition to the lecture notes provided by each faculty member, two textbooks per course are also given to the students. However, the EEC found no evidence of updating and validating the course material, especially taking into consideration that most of the teaching staff works with short-term contracts. Such procedures should be controlled in more efficient way.

The connection between research and teaching remains limited, since both the opportunities for the students and their interest to participate are restricted. The EEC recommends that training on experimental design and methodology should be included in the concept of the courses.

The mobility of the faculty members (i.e. participation in national and international conferences and project meetings) seems to be satisfactory. On the other hand, the mobility of the students (i.e. through the Erasmus exchange of students) is limited, mainly due to either lack of interest or poor knowledge on foreign languages. However, the Department hosts Erasmus students from similar Departments of Germany and Finland.

The Department has developed a questionnaire for the students in order to facilitate the evaluation of the quality of courses and teaching and this seemed to be appropriately developed for statistical analysis of the data and for giving important conclusions during the evaluation process of the Department. This is judged as a very useful initiative.

B. Research

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

The faculty members are characterised by a high academic and scientific level and they give effort to be informed on modern aspects of the forestry science. Most of the laboratories are already very well equipped for applied research, while some of them are new and are under development. The high quality of both faculty and laboratory facilities are prerequisites for research. All of the actual research projects are from national funds and any other research activities are based on personal communication of the faculty members with university level Departments and other institutions of public or private sectors. However, the research activities need enhancement.

At the TEI level there is a Research Committee and a person responsible for announcements of new project opportunities and research possibilities. This activity should be encouraged and supported, in order to bring the teachers/researchers in contact with applied research requirements and several stakeholders. The communication problem between the central administration of the TEI and the Department will be solved in due time by using internet applications.

The EEC considers the peer-review publication record as satisfactory (although unbalanced among the faculty members), taking into consideration the limited funding provided to promote and support research within faculty members. Referring to publications and after examination of the publication list included in the IER, no kind of information is given about the ranking of the journals in the ISI Web of Science and about the citation index of the published work of the Department. This point should be added in future internal evaluation reports as a quality measure of the publication list.

The committee would like to point out that the faculty has a successful participation in national and international conferences as illustrated in the substantial research results dissemination, which encourage further future collaborations with other institutions. Based on the IER, 61 research projects have been carried out during the period from 2003 to 2007. From these projects only a low number was funded by Europe. Actually, three research projects are under progress, a number which could be improved by encouraging the faculty to apply for research proposals and participate in national and international project consortia.

The Department should focus and develop interdisciplinary applied research, combining different labs and investigation aspects, both within and between Departments. The role of the Research Committee should be enhanced, providing more information about possible grants and research partners. The EEC regards the research strategy of the Department as crucial for further development of the institution.

According to the existing strategic plan of the Department involving the future research activities, these should focus on the technological and practical issues on forestry education and the link of the Department activities with social requirements concerning environmental conservation and management and the quality of life. The EEC supports this aim and suggests the implementation of the proposed research strategy.

C. All Other Services

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

The teaching rooms, laboratories, administration and secondary facilities (restaurant) are located in the main building. The library and the student dormitories are located nearby, serving all four Departments of the Karditsa branch.

The EEC was negatively surprised by the existence of a single person working in the Department Secretary Office. This has an effect on the total organization of the Secretary Office and the operation of the Department. Despite the extra effort of the secretary to service the students and the needs of the Department, it is virtually impossible to carry out the huge amount of those obligations.

The services offered by the library are satisfactory, since internet access to the journal databases and the connection with the National Network of Documentation is available. Additionally, the library possesses the main literature covering forestry aspects, while the number of books is increasing every year. A weakness for the library services is the limited space availability and limited open hours (8.00-14.00) because of lack of the personnel needed.

The internet access to documents and registration activities is satisfactory and facilitate education and administration activities. The Department's webpage includes enough information about the faculty, the study program and administration actions but its structure is not user friendly.

Considering the number of the students in the four Departments of the branch, the number of rooms in the student dormitories is low but an acceptable living standard is provided. An internal regulation of the dormitories has been developed in 2008. This regulation defines the legal status of dormitories operation. Sport activities in the campus are possible for the students, since a basic infrastructure is available. The student's complaints were mainly focused on the variety of the offered meals in the restaurant.

Overall, more personnel support in the secretariat, laboratories and library of the Department is essential and very critical. Faculty members and students, as well as the EEC agree on the latter and suggest the employment of specialized staff.

D. Strategic planning, perspectives for improvement and potential inhibiting factors

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

The Department has produced and approved by all faculty members a strategic plan of action to improve its activities for 2008-2012.

The plan proposes specific actions in order to improve the process and development of the Department, regarding operation of academic and administrative activities, as well as promotion of collaborations and mobility of faculty and students.

The strategic plan proposes the establishment of a post-graduate program of studies. The EEC is of the opinion that such a program could also be developed in collaboration with other forestry related TEI Departments and/or other environmental University Departments.

The main objectives of the Department could be summarized as follows:

- to provide a complete and high education level on applied forestry and environmental science
- to promote research that is adapted mainly to the needs of technological education
- to offer the students the appropriate knowledge to serve Forestry and Natural Environment, giving them the opportunity to follow a successful career
- to connect the Department (faculty, students and graduates) and its activities with the society and its requirements in relation to the protection and management of Forest Resources.

The implementation of the proposed strategic plan should take into consideration the results of the analysis of the newly structured questionnaires answered by the students.

Based on the overall view of the Department's activities and aims, the EEC suggests either:

- the merging of the different operated Forestry TEI-Departments, that practically offer the same education perspectives and professional opportunities
- or
- the specialization of each Forestry TEI Department on modern topics with promising professional perspectives (e.g. natural hazards) through the proper revision of the curricula (e.g. by adding more elective courses).

E. Conclusions:

For each particular matter, please distinguish between under- and post-graduate level, if necessary.

The general impression of the EEC concerning the overall activities and output of the Department is quite positive. The faculty gives much effort to keep a relatively high level of studies in the Department, to cover different forestry aspects, to include new technology in the curriculum, and to implement research results in the forestry practice. However, more effort is required on participating in research activities and making the results of applied research public.

Although the EEC found the IER satisfactory, it is recommended to incorporate more details (i.e. publications classified within ISI Web of Science or not; research projects classified in international and national, competitive or not, referring the budget, dissemination of the results) and avoid contradictions.

As a result of the observations, study of the documents and discussions among the EEC members, the following recommendations were turned out:

1. The lack of more specific elective courses limits specialization of the students in areas of high demand. This could be improved by offering more electives within and between the different Departments of the TEI.
2. The existence of theoretical and laboratory hours for each course should be reconsidered in order to offer free time in the curriculum for actually important courses.
3. The need of “chain”-type courses is covered satisfactory in the revised curriculum.
4. The EEC considers that the actual entrance of the students in two semesters (September and February) is highly ineffective and strongly recommends it to be only once a year (i.e. September). Furthermore, the existing infrastructure and personnel of the Department could support the studies of no more than 100 students per academic year.
5. According to the general opinion (EEC, faculty, students) more field training should be incorporated in the curriculum. The EEC highly suggests the establishment of a summer camp.
6. The EEC mentions that the practical “six month placement” in the public or private sector should be a meaningful activity for the students. This work time should not cover administrative needs of the Department but offer to the students more practical experience in applied forestry.
7. The educational level of students accepted in the Department is relatively low in basic knowledge mainly due to the fact that the entrance system in the higher education institutions allows the students from classical section to enter the TEI.
8. The level of knowledge of foreign languages among the students is considered to be important for their education and career. This should be supported during their

studies by offering English terminology obligatory in each course.

9. The most problematic situation is the lack of appropriate number of administrative staff (secretariat), which creates multiple problems in the operation of the Department.
10. The insufficient number of permanent faculty and technical staff leads to work overload for the existing personnel.
11. The EEC observed that the availability of specialized educational software and hardware is modern and advanced but should be further included in the study material of all different courses/laboratories.
12. The EEC found a very good operation of the “Career Office”, giving hard effort to select and analyze the input data. This Office is a link between the students and the major stakeholders and helps the professional opportunities of the graduates. The EEC strongly recommends the further development of the particular Office, which needs institutional and funding support from the Ministry.
13. The teaching system of specific courses should be supported by the establishment of an arboretum and herbietum in the open area of the Department campus, approach which is suggested by the EEC.
14. The EEC stated the absence of a defined research strategy, a fact confirmed from the faculty and the IER. We propose the delineation of research strategic goals and implement them through national and/or international funding.
15. The publication record is considered satisfactory with non balanced contribution of the different disciplines of the Department. This should be taken into consideration in the future.
16. The establishment of a post-graduate program is considered as reasonable. The EEC notes that such a program could also be developed in collaboration with other forestry related TEI Departments and/or other environmental University Departments.

The Members of the Committee

Name and Surname

Signature

1. Dr. Aikaterini DOUNAVI (Coordinator)
2. Dr. George BROFAS
3. Dr. Nicolas-George ELIADES
4. Dr. George LYRINTZIS