



**ASIIN Seal**

# **Accreditation Report**

**Bachelor of Science programme**  
***Forestry Sciences Engineering***

Provided by  
**Juarez University of the State of Durango**

Version: 3 December 2020

# Table of Content

<b>A About the Accreditation Process.....</b>	<b>3</b>
<b>B Characteristics of the Degree Programme.....</b>	<b>4</b>
<b>C Peer Report for the ASIIN Seal .....</b>	<b>6</b>
1. The Degree Programme: Concept, content & implementation .....	6
2. The degree programme: structures, methods and implementation.....	10
3. Exams: System, concept and organisation.....	16
4. Resources .....	19
5. Transparency and documentation.....	23
6. Quality management: quality assessment and development .....	24
<b>D Additional Documents .....</b>	<b>25</b>
<b>E Comment of the Higher Education Institution (11<sup>th</sup> November 2020).</b>	<b>27</b>
<b>F Summary: Peer recommendations (17<sup>th</sup> November 2020).....</b>	<b>32</b>
<b>G Comment of the Technical Committee 08 - Agriculture, Nutritional     Sciences and Landscape Architecture (20.11.2020) .....</b>	<b>34</b>
<b>H Decision of the Accreditation Commission (03.12.2020) .....</b>	<b>36</b>

## A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for <sup>1</sup>	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC) <sup>2</sup>
Ingeniería en ciencias forestales	Forestry Sciences Engineering	ASIIN	ASIIN, 26. Jun 2015-30. Sep. 2020	08
<p><b>Date of the contract:</b> 24.06.2019</p> <p><b>Submission of the final version of the self-assessment report:</b> March 17<sup>th</sup>, 2020</p> <p><b>Date of the online audit:</b> 30 September-02 October 2020</p>				
<p><b>Peer panel:</b></p> <p>Prof. Dr. Benno Pokorny, University of Freiburg</p> <p>Prof. Dr. Carsten Mann, Eberswalde University for Sustainable Development</p> <p>Ing. Sandra Solis Urbina, Postgraduate Student</p> <p>Dr. Timothy Synnott, Independent Consultant</p>				
<p><b>Representative of the ASIIN headquarter:</b> Arne Thielenhaus</p>				
<p><b>Responsible decision-making committee:</b> Accreditation Commission for Degree Programmes</p>				
<p><b>Criteria used:</b></p> <p>European Standards and Guidelines as of May 15<sup>th</sup>, 2015</p> <p>ASIIN General Criteria as of December 10<sup>th</sup>, 2015</p>				

<sup>1</sup> ASIIN Seal for degree programmes.

<sup>2</sup> TC: Technical Committee for the following subject areas: TC 08 - Civil Engineering, Geodesy and Architecture; TC 11 - Geosciences.

Subject-Specific Criteria of Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture as of March 27<sup>th</sup>, 2015

## B Characteristics of the Degree Programme

a) Name	Final degree (original / English translation)	b) Areas of Specialization	c) Corresponding level of the EQF <sup>3</sup>	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Ingeniería en Ciencias Forestales	Forestry Sciences Engineering	Forest Restoration; Forest Industry; Forest Management	6	Full time	-	9 Semesters	360 ECTS	Every semester; 1983

For the Forestry Sciences Engineering Bachelor degree programme, the institution has presented the following profile on its website:

The Faculty of Forestry Sciences is a High Education Institution (HEI), which has the Forestry Sciences Engineering Study Programme at an undergraduate level. Its general objective is to train engineers in Forestry Sciences who master the professional competences of their area for responding to the social, labour market and professional needs; and, with them, propitiate and strengthen the development of the forest sector in the regional, state and national scopes.

To achieve the fulfilling of its general objective, the FSESP poses the following **specific objectives**:

- Training graduates who develop generic competences, which allow them integrating to society and to the globalized world with enough tools as to respond the forest sector problematic at all its levels.
- Developing specific competences in the graduates, to intervene in the different labour market problematic of Forestry Sciences Engineering, which allows them developing processes, methodologies and projects that influence the sustainable development of the region and country.
- Promoting in the graduates an integral training which allows them developing skills and attitudes in benefit of society and the forest sector where he/she is going to

---

<sup>3</sup> EQF = The European Qualifications Framework for lifelong learning

provide his/her services, to offer, identity hold, inclusion and professional ethics that assure their social and professional insertion.

From the former the study plan is structured under the following **curricular objectives**:

- Identifying and characterizing the species of forestry interest and the plant communities, based on botanic, anatomic, physiologic, genetic principles and their eco-silvicultural interactions, to quantify forest resources.
- Knowing and applying the regulations that rule the forest activity at a local, state and national level, through the knowledge of laws and regulations that rule the management of forest resources, for generating a sustainable use.
- Applying the scientific, technical and cultural information, with a critical and constructive mind, through the use of present communication technologies, for an integral development of the students.
- Promoting the oral and written communication, investigation and team work capabilities, as well as the creativity and Independence, through the active participation of the students in cultural, scientific, sportive and social activities, for a better development and integration into society and in their professional performance.
- Developing timber and non-timber managing programmes, by means of the knowledge of forest resources stocks, and by proposing silvicultural alternatives according to the technical condition of the forest resource, in order to guarantee the sustainable use of forest resources.
- Identifying the impact degree of the degraded areas in forest ecosystems, by means of field trips, use of GIS, to propose conservation and restoration actions for the degraded systems.

## C Peer Report for the ASIIN Seal<sup>4</sup>

### 1. The Degree Programme: Concept, content & implementation

**Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)**

#### **Evidence:**

- Self-assessment report
- Summary of the changes regarding the Forestry Sciences Engineering Study Programme
- Programme website ([http://forestales.ujed.mx/forestales/en/oferta\\_educativa\\_icf\\_objetivos.php](http://forestales.ujed.mx/forestales/en/oferta_educativa_icf_objetivos.php); [http://forestales.ujed.mx/forestales/en/oferta\\_educativa\\_icf\\_perfil\\_egreso.php](http://forestales.ujed.mx/forestales/en/oferta_educativa_icf_perfil_egreso.php))

#### **Preliminary assessment and analysis of the peers:**

The peers find a concise overview of the programme objectives and the desired learning outcomes on the Juarez University of the State of Durango's (UJED) dedicated programme website.

The generic competences which the programme seeks to develop in students include:

- Seeking for the student to develop the capability of communicating in Spanish and in a second language, for her/his social interaction.
- That she/he applies the critical and self-critical thinking for identifying, posing and solving problems by means of the abstraction, analysis and synthesis processes.
- That she/he applies collaborative leadership to identify and develop ideas and/or projects in the professional and social field through the planning and making decisions processes, assuring team work, motivation and common target goals.
- That she/he acts with respect towards cultural diversity, with social responsibility and citizen commitment to face and solve professional conflicts.
- That she/he applies the suitable communication and information technologies as tools for solving the professional field and social problems which strengthen the development of learning, communicating, discipline training and investigation.

---

<sup>4</sup> This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

The specific or professional competences which the programme aims to strengthen, and which are grouped within so called Training Routes, include the following:

- Forest restoration: Designs, performs and assesses plans and programmes for the conservation and restoration of forest ecosystems guaranteeing their sustainability.
- Forest management: implements timber and non-timber managing programmes, guaranteeing the sustainable use of forest resources consistent with the regulations in force.
- Forest industries: Designs schemes for supplying, transformation and merchandising raw materials and forest products, in order to favour industrial processes without affecting the environment.

The curricular objectives for the students include:

- Identifying and characterizing the species of forestry interest and the plant communities, based on botanic, anatomic, physiologic, genetic principles and their eco-silvicultural interactions, to quantify forest resources.
- Knowing and applying the regulations that rule the forest activity at a local, state and national level, through the knowledge of laws and regulations that rule the management of forest resources, for generating a sustainable use.
- Applying the scientific, technical and cultural information, with a critical and constructive mind, through the use of present communication technologies, for an integral development of the students.
- Promoting the oral and written communication, investigation and team work capabilities, as well as the creativity and Independence, through the active participation of the students in cultural, scientific, sportive and social activities, for a better development and integration into society and in their professional performance.
- Developing timber and non-timber managing programmes, by means of the knowledge of forest resources stocks, and by proposing silvicultural alternatives according to the technical condition of the forest resource, in order to guarantee the sustainable use of forest resources.
- Identifying the impact degree of the degraded areas in forest ecosystems, by means of field trips, use of GIS, to propose conservation and restoration actions for the degraded systems.

The University supplies a matrix describing how the ASIIN subject-specific criteria (SSC) of the Technical Committee (TC) 08 are covered by the programme's desired learning outcomes. As explained in the self-assessment report, the list of skills to be obtained by students in the course of the programme is discussed with stakeholders in forums that take place every two years. During the audit discussions, the peers are pleased to learn that the consulted stakeholders do not only include members of the forestry industry but also representatives from ejidos and government organizations. They can thereby see that a spectrum of opinions is taken into account when forming, revising and/or adapting the intended learning outcomes according to changes in demand or conditions. For future meetings, the peers encourage the University to also consult non-governmental organizations and community representatives.

The peers note that the desired learning outcomes and objectives cover forestry, technical and environmental aspects but insufficiently consider social, political and economic aspects, including

forest related topics of enormous local and global importance such as sustainable development, climate change, societal transformation, as well as the needs of indigenous and other local communities. The university acknowledges that these topics have been neglected in the past, but that some related learning outcomes will be included in a new curriculum which is to be implemented in the upcoming spring semester, particularly with regard to social, policy and economic contents. These include new generic competences related to global citizenship, virtual environments, education in digital platforms, the use of social networks and learning support applications, and team work. The strived for professional competences will be updated with new current topics, the use of new technologies and the application of specialized software.

In the audit discussions, the peers ask the industry representatives whether the students and graduates in their opinion possess the skills required by the labour market. The representatives are of the opinion that overall the students meet their needs. The representatives from government ministries note that students would benefit from a better understanding of relevant legislation and policy. Another representative notes that the students and graduates show weaknesses with regards to English language skills. This latter aspect is discussed under criterion 2.1.

In conclusion, the peers are of the opinion that the learning outcomes are viable and valid, reflect the level of academic qualification aimed at and meet the SSC of the ASIIN TC 08. The peers note that they would have welcomed the opportunity to also speak with representatives of *ejidos* (communal lands) and private property owners, whom they believe could provide valuable feedback regarding the programme's intended learning outcomes. However, based on the provided documents and the discussions with the attending industry representatives, the peers see that the majority of graduates find an occupation related to their studies and have competences desired by employers. The peers favourably view the University's plans to update the programme and recommend that outcomes related to social, economic and policy-related aspects are included.

<b>Criterion 1.2 Name of the degree programme</b>
---------------------------------------------------

**Evidence:**

- Diploma supplement
- Self-evaluation report
- Summary of the changes regarding the Forestry Sciences Engineering Study Programme

**Preliminary assessment and analysis of the peers:**

The name of the study programme was exhaustively discussed in the previous accreditation. The peers are of the opinion that the solution found during the previous accreditation – the specification on the programme website that the study programme does not focus on technology – is acceptable and does not, at this time, require revisiting.

The peers learn during the discussions with the representatives of the University that the University is planning to change the name of the programme to Forest Engineering. The peers are of the opinion that this new name is acceptable.

### Criterion 1.3 Curriculum

#### Evidence:

- Module Descriptions
- Objective Module Matrix

#### Preliminary assessment and analysis of the peers:

The individual module descriptions provided by the University indicate the contents as well as the generic and professional competences which the respective module aims to develop. From this, the peers can see that the overall objectives and intended learning outcomes are systematically substantiated in the individual modules. Some implementation issues are discussed under criterion 2.1.

### Criterion 1.4 Admission requirements

#### Evidence:

- Self-assessment report
- Programme website ([http://forestaes.ujed.mx/forestaes/en/oferta\\_educativa\\_icf\\_perfil\\_ingreso.php](http://forestaes.ujed.mx/forestaes/en/oferta_educativa_icf_perfil_ingreso.php))
- Sample admissions exam

#### Preliminary assessment and analysis of the peers:

The admission requirements for the study programme, including the desired competences of the applicants, are listed on the programme website. The admissions process takes place via the University's central website and is transparent for all applicants. In addition to meeting general requirements, applicants must pass a programme-specific entry exam covering basic biology, chemistry and mathematics.

The peers can see that the admission requirements are binding, transparent and structured in a way that supports the students in achieving the intended learning outcomes.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 1:**

The University does not comment on this part of the report. The peers maintain their recommendation that the University integrate more learning outcomes and contents related to social, political, and economic aspects of forest and land uses in the programme. Overall, they consider the criterion to be fulfilled.

## **2. The degree programme: structures, methods and implementation**

### **Criterion 2.1 Structure and modules**

**Evidence:**

- Self-Assessment Report
- Module Descriptions
- Audit discussions

**Preliminary assessment and analysis of the peers:**

The Forestry Sciences Engineering study programme is designed to be completed in a four-and-a-half-year period. The programme is divided into modules or Learning Units (LU) which consist of 16-week teaching periods; there are two cycles (semesters) in each year, Cycle A (February-June) and Cycle B (August-December). Students must complete 9 cycles (semesters). There are also intensive courses (5 weeks) called summer or winter courses, respectively, which allow students to advance one or more LUs.

The Learning Units or modules consist of a sum of teaching and learning whose contents are concerted. Students must take a total of 47 mandatory modules as well as 7 electives; the latter taking place in the final two semesters of the study programme. In the updated programme planned for 2021, students will be able to take electives starting in the 5<sup>th</sup> semester.

The UJED Educational Model includes “transversal axes” which aim to instil knowledge of and encourage personal development among students in the areas of scientific research, ethics & values, human rights, and environmental awareness. All modules along the program should integrate these transversal axes topics into their didactics and contents. The peers find this instrument of transversal axes useful to stimulate and accompany the students in the development of key competences not transferable in a single module. Following the discussions, the peers are under the impression that the potential of this instrument

is not fully explored, as the professors appear to be left alone with the task of integrating these axes in their modules. The peers encourage the University to consider institutionalization of these axes, for example, in the form of an expert committee that organizes training, didactical materials, and possibilities for reflection and planning, to enhance the effectiveness of this instrument. The University may also consider including language skills, i.e. English reading and writing, as an additional area of the transversal axis.

The programme offers three specialisations or “training routes”, including “Forest management”, “Forest industries” and “Forest restoration”. The SAR lists the modules which must be completed by students in order to pursue each of these training routes. Based on the provided overview, the peers can see that much of the contents of the three training routes are fairly similar. During the discussions with the students, the peers discover that many of the students are not familiar with the option of selecting training routes and that few students pursue them. According to some of the older students, the training routes are only relevant when students are interested in following a research path. The teachers note that many of the students prefer to have a “generalist” profile as this gives them more flexibility in choosing the modules and their subsequent career path. Following these discussions, the peers are under the impression that the training routes in their current form offer limited value to most of the students. The University should consider creating well differentiated training routes that are perceived by the students and future employers to be more useful. These could include, for instance, a differentiation between a “research” track and an “applied” track.

The peers note that those parts of the curriculum concerned with land management (SFM, arid lands, management of protected areas) should emphasize not only the legal and regulatory requirements, and the technical elements of management plans, but also the needs and objectives of the land owners and forest dependent households, hence the social aspects. In this way, the students can learn about the fundamental purpose of forestry, which is to serve the needs of people.

The peers are also under the impression that there are some overlaps with regards to the modules related to forest management (silviculture, forest management, forest plantations, productive forests etc.), and “Forest Measuring”, “Geographic Information Systems”, “Sampling and Forest Resource Inventory”, and “Spatial Analysis”. They would be interested to learn whether the University sees potential to combine or reorganize the contents of these modules.

According to the SAR, during the course of their studies, students are required (by national regulations) to complete 480 hours of social service, which can include diverse volunteer

activities. In addition to the social service, the students participate in a professional residency (internship) of another 480 hours in the 9<sup>th</sup> semester, which allows them to gain practical experience in public or private institutions, consultancies, enterprises or research organizations. In the course of the residency they are tutored by both the teachers of the faculty and the hosting organisation's staff. During the residency, the students must submit partial reports, which are assessed by their tutors. At the end, students present their project.

During the audit, the peers also have the opportunity to discuss with some representatives of organizations who regularly host the students for residencies. Based on the SAR and discussions, the peers are under the impression that the internships are well-integrated at the end of the curriculum, and that the University ensures a sufficient fit in terms of relevance, content and structure.

The peers learn that starting in the fifth semester (after completing 60% of the programme), students have the opportunity to study abroad or at another university in Mexico, provided they are not lagging behind in the programme and have satisfactory grades. Each year, up to 18 Students in the faculty are eligible for mobility-related scholarships, and usually 8-9 students in the programme participate in mobility annually. Some students also complete their professional residencies abroad. Rules for recognising achievements and competences acquired outside the higher education institution are well defined and published on the programme website.

Following the discussions with the students and the employers, the peers understand that students struggle with developing their English language skills. The peers therefore highly recommend that students receive English-language training and practice in each semester accompanying their studies.

While the language training could be improved, the peers are satisfied that adequate conditions for student mobility are provided. Taking into account the mobility options as well as the electives and training routes, the peers can see that students can define an individual focus and course of study.

The peers ask the programme coordinators about the number of students that fail or drop out of the programme. As mentioned in the SAR, of the seven cohorts finishing between 2017-2020, an average of 22% of students failed out of the programme, while an additional 28% of students decided to drop out. On average, 50% of students who begin the programme successfully complete the programme, either on time or with a delay.

The peers learn that the completion rates are below the national average. According to the University, there is a wide variety of reasons why students drop out – for instance, some

students drop out due to financial reasons, others because they discover that forestry does not interest them so much. After the discussions with the students, the peers are under the impression that there are no structural issues with the programme, which would impede students from successfully completing it on time. As described under criterion 2.4, there are a number of support mechanisms in place to aid students both financially and otherwise. While the peers accept that there are presumably a number of reasons why students do not finish the programme successfully and on time, the peers cannot tell (based on the provided documentation) what efforts the University has undertaken to discover the specific causes of failure and abandonment. The peers therefore ask the University to provide an explanation of these efforts.

### **Criterion 2.2 Work load and credits**

#### **Evidence:**

- Module descriptions
- Self-assessment report

#### **Preliminary assessment and analysis of the peers:**

The University uses the Mexican credit point system. The module descriptions indicate the workload for each module. A total of 307 Mexican credits must be achieved by the students. The average number of credits per semester for semesters 1-7 is 32 credits, then dropping to 24 credits in the 8<sup>th</sup> semester, and 25 in the final semester (including the internship experience). Students also get a total of 35 credits for the provision of social services, English language certification, and integral training.

In the audit discussions, the students explain that the general workload is adequate and manageable. Some of the older students report that there is a workload-spike after the 6<sup>th</sup> semester, when students are introduced to research methodology and must spend more time on research. However, they feel that the workload is nonetheless adequate.

As mentioned previously, the peers encourage the University to introduce research topics at an earlier stage in the programme, as this may reduce the spike in workload perceived by the students after the 6<sup>th</sup> semester, and allows students to better arrange with their other study obligations. Overall the peers are under the impression that the workload is adequate. The peers note, however, that the students would benefit from additional assistance with planning the workload associated with the title project.

### **Criterion 2.3 Teaching methodology**

**Evidence:**

- Self-assessment report
- Audit discussions

**Preliminary assessment and analysis of the peers:**

According to the SAR, lessons are provided in the form of theoretical classes, field practices, laboratory practices, visits to enterprises, independent work, professional supervised work and participation in congresses. The peers learn during the discussions that the typical number of students per class is 20-25, which is reasonable.

As revealed during the discussions, field trips are an important part of the programme. The region in which the University is located is heavily forested, and the University owns an extensive terrain ("Las Bayas"), which is managed in accordance with international sustainable forestry standards, and is regularly used for field exercises. Field trips are also conducted to saw mills/wood processing industries in the surrounding area. According to the teaching staff, field trips start as early as the second semester. Some of the teaching staff organize joint field trips together with colleagues so that the field trips deal with multiple topics. The students report that they would prefer a greater number of field trips, particularly in the earlier semesters. Additionally, they feel that most of the trips are related to the timber industry and would be interested in field trips on different topics.

The peers understand the students and encourage the University to provide more field trips related to subjects other than timber production and processing. The peers ask the university to provide an overview of the field trips conducted during the programme, according to semester.

As a result of the COVID-19 pandemic, all classes are now online, and field trips can no longer take place. This move to online courses has been a significant challenge for both teachers and students. In addition, the interaction between students and teachers has been greatly reduced. The peers learn during the discussions that, all teachers have made printed learning material accessible to students via Moodle, but that the majority do not interact face-to-face with students, for example via videoconference. While the peers understand that this situation is a result of the pandemic, they strongly encourage the teaching staff to use more face-to-face time and other possibilities for interaction. This is also discussed under criterion 4.2.

<b>Criterion 2.4 Support and assistance</b>
---------------------------------------------

**Evidence:**

- Self-assessment report
- POLÍTICAS Y LINEAMIENTOS GENERALES DE LA TUTORÍA ACADÉMICA
- Audit discussions

**Preliminary assessment and analysis of the peers:**

According to the SAR, the University has an Institutional Academic Tutoring Programme which aims to boost student performance and guide students in their decision-making. During the audit the peers learn that the tutors, known as “advisers”, are in fact the faculty’s teachers and that new entry students are divided among them. In their “adviser” role, they provide students with general guidance. Additionally, as described in the SAR, each academic group has a “monitor” adviser who attends and guides the group in academic situations. The adviser and monitor adviser have within their functions to detect the students’ academic needs and identify the ones in need of tutoring. The students confirm that the adviser system is in place and working, although some students note that some advisers are more helpful than others. The peers favourably view the tutoring programme but encourage the university to establish quality assurance mechanisms aimed at continuously improving the adviser system, and to actively include students of older semesters.

With regards to the final projects, the peers repeat their recommendation mentioned under criterion 2.1 that additional guidance and support should be offered to students, and that the process should begin at an early stage in the programme.

The peers learn during the discussions with the programme coordinators and students that a variety of scholarships are available to students. A table in the SAR indicates the types of scholarships and the number of students receiving them.

In general, the peers are under the impression that there are resources available to provide individual assistance, advice and support for all students, and that these assist the students in achieving the learning outcomes and in completing the course within the scheduled time.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 2:**

The University does not provide a comment regarding the training routes. The peers recommend that the University create well differentiated training routes that are perceived by the students and future employers to be meaningful.

The University does not comment on the English-language contents in the curriculum. The peers recommend that the University increase the English-language contents.

The University does not comment on the content overlaps in the curriculum. The peers recommend that the University reduces these overlaps.

The University provides a list of the field trips conducted in semester B of 2019 as part of the programme. According to the University, there is no fixed field trip schedule for each semester or year: the field trips change depending on whether or not partner organisations

can receive students. The University notes that due to the COVID-19 pandemic, no field trips have taken place in 2020. The peers can see that the students typically begin to go on field trips in the second semester and that the number of field trips increases in the final semesters of the programme. In addition, the University provides samples of the forms used by the faculty to register field trips, as well as some photos of the available transport vehicles and sites visited. The peers are under the impression that, in the provided list, the diversity of topics addressed is balanced.

In addition to recommending the integration of more course contents related to social, political and economic aspects, the peers recommend that the University organise more field trips related to these subjects. In this manner, the students can learn to recognise and better understand the local, social, economic, political and traditional factors determining past practices, the needs, wishes and aspirations of the owners, and their realistic future options.

With regards to the University's efforts to identify the reasons why students abandon the programme or fail, the University notes that students who leave the programme are asked for their reasons when the students come to pick up any final paperwork. The University says that statistical information is usually compiled, but that this cannot currently be submitted. The peers note that, given the significant number of students abandoning or failing out of the programme, this information is vital. The peers therefore require the University to provide a statistical overview and analysis of the reasons for programme abandonment or failure, as well as a plan with specific measures to address this situation.

Criterion partially fulfilled.

### 3. Exams: System, concept and organisation

<b>Criterion 3 Exams: System, concept and organisation</b>
------------------------------------------------------------

**Evidence:**

- Self-assessment report
- Module descriptions
- Audit discussions
- Sample exams and dissertations
- Reglamento de Titulacion
- Programme website ([http://forestales.ujed.mx/forestales/es/acerca\\_facultad\\_normatividad.php](http://forestales.ujed.mx/forestales/es/acerca_facultad_normatividad.php))

**Preliminary assessment and analysis of the peers:**

According to the SAR, a variety of assessment forms are used, including written tests, essays, reports and in some cases also oral presentations. The peers can see in the supplied module descriptions that assessments have been defined for each module.

Assessment methods are always explained by the teachers at the beginning of each module. In most modules, the grade results from a variety of partial evaluations. If, following these partial evaluations, the student's grade is insufficient, the student must take a "final" evaluation. The dates for these final evaluations are centrally coordinated.

After reviewing the documents provided by the University, including sample exams, the peers can see that evaluations are module-related and offer students continuous feedback on their progress in developing competences. Following the discussions with the students, the peers are under the impression that the exam load and preparation times are adequate, and that there are no delays to student progression resulting from excessively long exam correction times. The examination regulations are published along with other regulations on the programme website. There are rules in place, which ensure that exams marked by different examiners are comparable.

Before the discussions, the University provides a number of final projects, reports and theses which the peers examine. The peers note that the theses, reports and projects, while reflecting in general a Bachelor's level, are all dedicated to technical issues, and are limited with regards to the use of scientific literature.

The peers learn that students can complete the programme as "*pasantes*" (without title) or "*titulados*" (with title). While *titulados* receive a diploma and have the right to use the title "engineer", *pasantes* only receive a "*Carta de pasante*" indicating that they completed the mandatory coursework. According to the sources reviewed by the peers, this is a standard higher education practice in Mexico. The degree is also discussed under criterion 5.2.

In order to become a *titulado*, In order to become a *titulado*, students have to achieve a grade point average of 9.2 or higher, or must complete – in addition to the regular course load - a non-credited "title" project, which in the case of UJED could be a thesis or a technical project to be defended in front of a jury. The programme coordinators and students explain that the students can begin the thesis or technical project as early as the fifth semester and can complete it several years after completing their studies – even after entering the workforce. Some students begin a job without completing a title project but are asked by their employers to complete it after 1-2 years.

In the discussions with the students, the peers learn that many students prefer to enter the job market sooner rather than spend extra time and energy working on an optional title project. As a result, only few students attempt it. As explained by the students, students also frequently underestimate the workload associated with such a project and need more time than initially thought. The students note that a helpful thesis-preparation workshop was offered by one of the staff beginning in February 2020, but that this initiative ended with the outbreak of the COVID-19 pandemic. The students' limited interest in completing a title project is reflected in the number of diplomas issued in the last years: according to the SAR, none of the 48 students in the past three graduating cohorts received a diploma. The percentage of students who received a diploma in the previous cohorts was significantly higher, ranging between 14-54%. The peers ask the University to provide a written explanation for this drop in the number of issued diplomas, and why the title project is not credited.

The peers understand that few students will attempt a title project if it is in addition to the 9 semesters, and if the students are able to enter the workforce without completing such a project. However, the peers note that the study programme must have a mandatory, credited final thesis or equivalent, that guarantees that students can carry out an assigned scientific task independently and at the level of the academic qualification sought.

In view of the fact that a large percentage of students struggle with title projects, the peers strongly encourage the University to provide additional support in this regard, possibly in the mentioned workshop-format favourably reviewed by the students. The peers are under the impression that students would benefit from an earlier introduction to scientific research, as well as from additional guidance when it comes to ensuring an adequate project scope. The peers recommend that the University improves thesis supervision and develops a strategy to increase the number of students successfully finishing their title projects. The peers note that inspiration for research topic ideas as well as possible collaboration possibilities may come from the Master and PhD programmes.

The survey results indicating that students do not have enough time to complete the thesis were already discussed under criterion 2.4.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 3:**

In its comment, the University explains that the drop in the number of *titulados* can be explained by various factors. Students have up to 9 years to hand in their title project, and

on average, those who do pursue a title obtain it between one and two years after completing all the coursework. According to the University, there are currently 28 registered title projects, some of which will presumably be submitted in the coming months. Generally, students interested in continuing with postgraduate studies are the first in obtaining the degree, but this number is low. Some students however never pursue the title, due to a lack of necessity.

With regards to the mandatory final thesis or equivalent, the University notes that all students – both *pasantes* and *egresados* - are required to complete an internship report. This project aims to guarantee that students can carry out an assigned scientific task independently and at the level of the academic qualification required. For its completion, the students earn 10 credits. The internship has to fulfil the Professional Residency Regulations (Internship regulations) and students must follow the guidelines for presenting the report. Along with its statement, the University provides the official guidelines for internships as well as the guidelines for the report. These have been somewhat adjusted due to the COVID-19 pandemic.

After assessing the documents and sample internship reports provided by the University, the peers conclude that these do not qualify as a final thesis or equivalent. In particular, they do not see sufficient use of scientific references, theory, methodology and reflections. The University must ensure that all graduates complete a final project which meets these criteria.

As indicated under criterion 5, most of the students who finish the programme, being *pasantes*, are not qualified to pursue a subsequent Master's degree at UJED. While the students are able to find a job in a Forestry-related field, the peers see an urgent need for the University to develop a strategy to increase the proportion of students which successfully finish their title projects. In this regard, they recommend that the University provide students with additional support with regards to scientific research and writing, ideally beginning in the first semesters, and improve thesis supervision. This could also help ensure that the internship reports contain the necessary scientific content.

Criterion partially fulfilled.

## 4. Resources

<b>Criterion 4.1 Staff</b>
----------------------------

**Evidence:**

- Self-assessment report

- Audit discussions
- Staff handbook

**Preliminary assessment and analysis of the peers:**

As explained in the SAR, the programme is taught predominately by teachers with PhD or Master degrees, a small percentage of teachers has only a Bachelor degree, often the technical staff and/or practitioners. A number of those with Bachelor and Master degrees are currently pursuing a higher degree. The peers learn that this is also motivated by the prospect of higher pay. Two-thirds of the teaching staff consists of practitioners who teach on a part-time basis. The remaining full-time teaching staff works 36 hours per week, of which 10-20 hours are dedicated to teaching.

The peers favourably view that staff members are pursuing higher degrees, and that this is supported by the university. They also approve of the large proportion of practitioners in the teaching staff, as practical experience is particularly important in forestry.

As indicated under criterion 1.1, the University aims to integrate more intensively social, political and economic aspects / contents into the programme. The University acknowledges that the current full-time staff does not have sufficient expertise in this area, and that, due to funding restrictions, it may be difficult to hire additional teaching staff with relevant expertise. The programme coordinators are therefore counting on the current staff to develop their skills in these subject areas. One member of the teaching staff is taking socio-economic aspects into account in her PhD thesis.

The peers favourably view the University's efforts to integrate more social, political and economic aspects in the curriculum, and note that the University must ensure that these subjects are taught by qualified staff. Staff members could for instance also include part-time teachers coming from NGOs and other organizations, including organizations of forest owners, or even through exchanges with other universities. In view of the limited teaching competence in these fields, it is important that the university elaborates a strategic plan of how to enrich the program with social and economic contents in the long run.

Following the discussions, the peers also positively note that the staff appear very committed to the programme and its continuous improvement.

<b>Criterion 4.2 Staff development</b>
----------------------------------------

**Evidence:**

- Self-assessment report
- Audit discussions

### **Preliminary assessment and analysis of the peers:**

With regards to staff development, the peers learn during the audit that there are a number of University and federal programmes related to didactic training available to the staff. Teaching staff also have access to online courses in a number of relevant subjects. In case specific needs are communicated by the staff, courses can be requested, although not always financed. Since the outbreak of the COVID-19 pandemic, a larger number of teachers has received training with regards to e-learning and the use of the online learning platform Moodle.

As mentioned above, the peers, as well as the authorities of the University, recognize the need for hiring additional staff, or qualifying existing staff, in the field of social, political and economic sciences, and the related aspects of forest and land uses. However, it remains unclear whether and how this will be achieved. Thus, special attention and priority should be given to this issue by the University.

Following the discussions with the students, the peers note that most of the teaching staff still struggle to a certain degree with e-learning, as there is very limited use of video-conferences. The peers believe that student-teacher interaction, even if only in a virtual manner, is very important in order to engage students, answer their questions and ensure that the learning outcomes are achieved. While they recognize that some students may struggle to access online lectures due to poor internet connections in their respective areas, the peers nonetheless strongly encourage the university to increase the online face-to-face time between teachers and students. They therefore strongly recommend that the University provides the programme staff with the necessary training and resources to implement these types of interactive teaching formats.

<b>Criterion 4.3 Funds and equipment</b>
------------------------------------------

#### **Evidence:**

- Self-assessment report
- Photos of facilities
- Audit discussions

### **Preliminary assessment and analysis of the peers:**

The resources of the programme are described in the SAR. During the audit discussions, the peers learn from the students that there is reasonable equipment, also including two trucks for transport, available for field exercises. As previously mentioned, the University owns a large sustainably managed forested terrain (“las Bayas”) which serves as a training

ground. The students are of the opinion that the available equipment is sufficient. They also consider the University facilities, such as the library and internet connection, sufficient. Some of the older students confirm that there are also online libraries with scientific resources available. The teaching staff notes that at the beginning of the first year, students receive a tour of the library facilities where all the resources are explained. However, some of the younger students indicate that they are not familiar with these resources.

Following the discussions, the peers are of the opinion that the resources and facilities are adequate. However, the younger students' lack of awareness of the scientific resources, indicates that scientific research is not an important factor in the first semesters. The peers encourage the University to introduce scientific research components at an early stage in the curriculum and to thereby ensure that students are familiar and at ease with the available scientific resources by the time they begin their final project.

With regards to funds, the peers learn that these come primarily from the federal government. Additional funding comes from student enrolment fees as well as paid services provided to external bodies, including the development of impact studies. Some of the teachers also donate funds generated through externally funded projects.

During the discussions the University leadership indicates that the Forestry Sciences Engineering programme meets all the national accreditation criteria, and is one of five programmes at the University with an international accreditation. As a result, the University has a strong interest in maintaining the current level of funding (funds are provided by the federal government). As is revealed by the programme coordinators in subsequent discussions, increasing the number of students per cohort is not envisioned, not only due to resource constraints but also due to a limited demand in the labour market.

The peers are thus satisfied that the funding for the programme is secured.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 4:**

The University does not comment on the staff development. The peers strongly recommend that the University provide the staff with the necessary training and resources to increase the face-to-face interaction between teachers and students (for example via video conference) while COVID restrictions remain in place.

Overall, the peers consider the criterion fulfilled. However, they also note that, while they support the University's future plans to integrate more social, political and economic aspects in the curriculum, the current teaching staff has only limited qualifications to teach these subjects.

## 5. Transparency and documentation

### Criterion 5.1 Module descriptions

**Evidence:**

- Module descriptions
- Programme website

**Preliminary assessment and analysis of the peers:**

The University provides the module descriptions. The peers can see that these contain the required information and that these are also available on the programme website in the course language. However, while they are complete from a formal standpoint, the peers point out that in many cases, the suggested literature is outdated (more than 50 years old). In other cases, the literature is of little relevance for the region. The peers therefore suggest critically examining the provided references.

### Criterion 5.2 Diploma and Diploma Supplement

**Evidence:**

- Sample Diploma Supplement

**Preliminary assessment and analysis of the peers:**

The University provides sample diploma supplements, which provide an overview of the education system and the programme in accordance with the criteria, in both English and Spanish. However, the peers are unsure whether the diploma supplement is distributed only to “*titulados*” or also to “*pasantes*”, and whether “*pasantes*” can pursue a Master’s degree. The peers ask the University to clarify these questions and to provide a sample “*Carta de pasante*” which is given to “*pasantes*” upon completing the programme.

### Criterion 5.3 Relevant rules

**Evidence:**

- Programme website ([http://forestaes.ujed.mx/forestaes/es/acerca\\_facultad\\_normatividad.php](http://forestaes.ujed.mx/forestaes/es/acerca_facultad_normatividad.php))

**Preliminary assessment and analysis of the peers:**

The peers see that the rules and regulations affecting the programme are clearly defined and publicly available on the University website.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 5:**

The University does not comment on the literature references. The peers strongly recommend that the literature references be updated.

In its statement, the University explains that the students who apply for a Master's programme at the University must be *titulados*, i.e. they must have a degree. The implications of this were already discussed under criterion 3. Only *titulados* receive a diploma supplement. *Pasantes* receive a certificate of completion along with the transcript – the University provides samples.

The peers consider this criterion fulfilled.

## **6. Quality management: quality assessment and development**

<b>Criterion 6 Quality management: quality assessment and development</b>
---------------------------------------------------------------------------

**Evidence:**

- Self-assessment report
- Audit discussions

**Preliminary assessment and analysis of the peers:**

During the audit discussions, the peers learn that the students evaluate all courses online each semester. The anonymous evaluation results are made available to the teachers and rectors. They are, according to the programme coordinators, perceived as a useful tool to make course improvements. However, the peers learn that the teachers do not discuss the results with the students. The peers note that a complete feedback loop must be ensured – in this manner, the students will know that their feedback is being taken into earnest consideration, which in turn will encourage them to continue providing more and sincere feedback.

The peers learn that the programme also has four disciplinary “Academias”, groups of teachers, who teach related subjects. These groups meet regularly to discuss and evaluate the learning units, also covering topics such as quality of teaching and the need for content updates. The peers find this mechanism useful to reflect and continuously improve the design of the areas and the contents of the related modules. However, the peers caution that disciplinary segregation must be avoided and a reflection on the programme as a whole

maintained. The peers ask the University to provide an explanation of the mechanisms by which this is ensured.

As indicated by the SAR, the programme also has ISO 9001:2015 and ISO 14001:2015 certifications. As previously mentioned, the programme also invites representatives from employers as well as graduates to forums, which take place once every two years. These serve to gain important insights on the needs of the job market. The last forum provided the programme staff with important insights, inspiring changes which will be implemented with the new study plan next year. The peers applaud the university for the implementation of these forums, which they consider a particularly useful mechanism for the continuous development of the programme.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 6:**

In its statement, the University notes that the evaluation of the study programme is conducted every semester through the academies. At the end of each semester, the presidents of the academies deliver a report with the learning outcomes as well as the suggestions of the teachers to improve the programme contents and teaching activities. The suggestions are analysed in the presidents' meeting, which is also attended by the academic secretary. The secretary is in charge of applying the strategies and actions that are considered relevant for the improvement of the study programme. The peers can thus see that there are mechanisms which ensure that the programme as a whole is reviewed.

The University does not comment on the discussion of evaluation results with the students. A feedback loop must be ensured, particularly in light of the low number of titled graduates and fairly high number of dropouts. The peers therefore require that the University ensure that evaluation results are discussed with the students.

Criterion partially fulfilled.

## D Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

- D1. An overview of field trips conducted during the curriculum, according to semester

- D2. Explanation of the University's efforts to discover the reasons for student's abandonment of the programme or student failure
- D3. Explanation of why the number of "titulados" dropped to zero in the last three graduating cohorts and why no credits are given for the title project.
- D4. Explanation of whether "pasantes" receive a transcript, a diploma supplement, and are eligible to study in Master programmes. Also, a sample of a "Carta de pasante"
- D5. Explanation of internal QA mechanisms utilized to review the study programme as whole

## **E Comment of the Higher Education Institution (11<sup>th</sup> November 2020)**

The institution provided a statement as well as the following additional documents:

- Accreditation Report with Answers
- Information about field trips
  - Infrastructure and equipment for field trips
  - List of field practices
  - Programacion de practica
  - Practicas programadas
  - Reporte de practica
  - Cronograma y evidencias de aprendizaje
- Information about internship report
  - Lineamientos para reporte Residencia Profesional
  - Reglamento Residencia Profesional
  - Four sample internship reports
- Three sample certificates given to students who complete all the credits but have not completed the title project

The following quotes the comment of the institution:

D1. An overview of field trips conducted during the curriculum, according to semester

It is important to reinforce the knowledge acquired in the classrooms; therefore, the field trips are programmed. Through these field practices the students have the opportunity to interact with the environment regarding the established needs for each learning unit. For it, the teacher previously determines which activities should contribute to strengthen the competences established in their analytical programme. So, at the beginning of each semester a programming of field practices is done through the activities schedule to be performed during the period, it is presented and approved by the corresponding disciplinary academy. Additionally, the teachers have to follow certain steps in order to register their field practices and their approval as well as the provision of the resource allocation for the development of them.

1. At the beginning of semester each teacher registers each of his programmed practices through a platform established for the Forestry Sciences Faculty (<http://fcfposgrado.ujed.mx/academico/php/login.php>) where the following data are provided: a. Name of the practice b. Objective c. Topic to be addressed d. Justification e. Place and date of performance f. Leaving time and duration g. Human, material and equipment requirements
2. Such practice must have the approval of the president of the corresponding academy of the learning unit, automatically the date and time of the president's approval is registered.
3. Consecutively, the academic secretary approves the practice for the allocation of the resources.
4. Once the practice is completely approved, the administrative secretary allocates the asked resources, such as vehicle, driver, fuel, technical equipment, etc.

Since the first semester, there are learning units that have field practices in their programmes; therefore, the students participate in these kinds of activities all along the development of their studies.

The places where the field trips are performed are varied according to the nature and requirements of each learning unit, some of them are directly performed in the woods, when it is necessary to interact with natural processes and the management of them; while for others it is necessary to visit forest industries which are related to certain forest transformation processes.

For the development of these field trips, the Faculty counts with 5 vehicles which are allocated according to the needs of the practice, the number of students and the place where the practice will take place.

Once the field trip (practice) is performed, the students have to deliver a report to the teacher of the learning unit where they write about the performed activities, the achievement of the objective, the results obtained, performed contributions, etc.

D2. Explanation of the University's efforts to discover the reasons for student's abandonment of the programme or student failure

As it was explained in the SAR, the generation cohorts' behavior is very different in function of the particular situations that each student lives. Indeed, a set of factors affect the reasons why the students do not finish the programme successfully and in time, they are attributable to the SP, to the teachers' tasks, to the support services or to a suitable tutoring for overcoming their problems in the learning units. Nevertheless, diverse dropout causes have been identified, since the final discharge is made formally, either because of the self-student decision or because of a programme's failure, a previous interview is performed to

most of the students who dropout. We want to make clear that a low percentage of students do not expose the reasons because they just do not come back and it is not possible to know why they left. In this sense, the dropout reasons are identified as of personal nature like moving from the city, family influence, schedule incompatibility due to other activities; economic reasons and other associated to a lack of orientation to the programme and because the institution does not fulfill the student's expectations.

Before such a panorama, as it was said in the SAR, the University establishes diverse strategies for attending this problem, such as the Advisory Programme, Healthy University Programme in which the students are supported with external psychologic support; students have been oriented in decision making for personal matters; they have been assisted in non-planned pregnancies; the practice of sports and the approach to all kinds of arts and culture that are institutionally offered have been fostered; the students also participate in diverse scholarship programmes with different origin and purpose, as it was explained in the SAR.

A recent strategy in the University is related to the strengthening of the vocational orientation of the high-school-students which is offered in the UJED. In this sense, forestry issues are being addressed in the terminal stage as an induction to the profession and also during the admission mechanisms, the application of an interview to identify the professional profile has been started, in addition to the identification of the style of learning, the result of which are provided to the teaching staff for adjustments, where appropriate, to the learning strategies in each unit or module.

D3. Explanation of why the number of "titulados" dropped to zero in the last three graduating cohorts and why no credits are given for the title project.

The little information presented regarding "titulados" in the last three graduating cohorts obeys to the following causes:

- a. The time for obtaining the degree is very wide, since they have 9 years to get it after the first year they finished with the programme, which allows them to take the process very calmly.
- b. The average time to obtain the degree is between one and two years after finishing the programme (complete all the required credits).
- c. In most of the places where they work at it is not a requirement to have the degree.
- d. A great percentage of the students who complete the credits return to their homelands, they begin to work and it is complicated for them to go back to school to obtain the degree.

e. Generally the ones interested in continuing with postgraduate studies are the first in obtaining the degree, the percentage of students who continue with postgraduate studies is low.

f. Up to now, 28 students have registered their thesis and/or project for obtaining the degree at the research coordination of the FSF, which will increase the percentage of students who obtain the degree in the next months.

Nonetheless, the directive body and teachers will collegiately look for a strategy that allows increasing the index of the degree obtaining. Regarding the doubt about awarding credits to the project for obtaining the degree, it is informed that it is an option for doing so along with the thesis and the medal for the academic merit, so that no credits are allocated.

D4. Explanation of whether “pasantes” receive a transcript, a diploma supplement, and are eligible to study in Master programmes. Also, a sample of a “Carta de pasante”

According to the study plan (in the section on "Egress and Degree"), students upon completing all the credits may request the Faculty to issue a certificate that they have completed 100% of the credits stipulated in the Curriculum. Likewise, they can generate, in the UJED School Services platform, their transcript of qualifications, which states that they have completed 100% of the credits of their learning units and their average grade in the career; also having the option of generating, if required, their intern letter (carta de pasante).

The Study Plan, per se, does not establish that the student who completes the academic credits can be issued an “Intern Letter”, since it does not define such concept. The next step is that the student who passes 100% of the credits of the study plan must present to the Postgraduate Studies and Research Direction (PSRD) and of the FSF their document for obtaining the degree (which can be a Degree Project or a Thesis), which, when approved by the advisors and endorsed by the PSRD, allows the student to carry out the procedures and the qualification process to obtain their degree, as established by the FSF regulations, such as: the Internal Regulations (articles 103 to 106), Degree Regulations (articles 11 to 13) and Professional Residence Regulations (article 44); of course, additionally complying with the other requirements C Peer Report for the ASIIN Seal 21 established in the applicable provisions in the current legislation of the UJED. In this context, the FSE SP Curriculum does not establish the figure of "Intern" (pasante), so a sample of an "intern letter" cannot be provided. Additionally, it is clarified that, in order to be eligible to enroll in a Master of Science program, our graduates must have their degree and Professional Diploma, according to the regulations of the Postgraduate Studies of the UJED.

D5. Explanation of internal QA mechanisms utilized to review the study programme as whole

At the end of each semester, the principal, the academic secretary, the administrative secretary, the programme coordinator, and the presidents of the (4) academies get together in order to revise the results of the semester. Each of the presidents submits a report where they explain how the different learning units developed, the results and the teachers' observations. All together, they discuss the results and, considering the teachers observations, they propose, if suitable, the appropriate changes to improve the contents of the learning units that need so.

The academic secretary, who supports the principal in the academic issues, talks to the teachers whose programmes need to be improved and provides them with the suggestions that came up in the meeting with the presidents of the academies.

## F Summary: Peer recommendations (17.11.2020)

Taking into account the additional information and comments, the peers summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Programme	ASIIN-seal	Subject-specific label	Maximum duration of accreditation
Ba Forestry Sciences Engineering	With requirements for one year	-	30.09.2027

### Requirements

- A 1. (ASIIN 2.1) Provide a statistical overview of the reasons for programme abandonment or failure, as well as an analysis and a plan with specific measures to reduce abandonment and failure.
- A 2. (ASIIN 3) Develop and implement a strategy to increase the number and proportion of graduates with a degree.
- A 3. (ASIIN 3) Ensure all graduates complete a thesis /dissertation or final project which comprises minimum scientific requirements in terms of citation, theoretical foundation, methodology and discussion.
- A 4. (ASIIN 6) Teachers must discuss evaluation results with students.

### Recommendations

- E 1. (ASIIN 2.1) It is recommended to increase the amount of English-language contents in the curriculum.
- E 2. (ASIIN 2.1) It is recommended to bolster the implementation of the transversal axes by providing teachers with additional guidance
- E 3. (ASIIN 2.1) It is recommended to increase the curriculum contents and field trips related to social, political and economic aspects of forest and land use.
- E 4. (ASIIN 2.1) It is recommended to create well differentiated training routes perceived to be meaningful by students and employers.
- E 5. (ASIIN 2.1) It is recommended to reduce content overlaps between modules.

- E 6. (ASIIN 2.3, 4.2) It is recommended to increase the face-to-face interaction between teachers and students (for example with video conference) while COVID restrictions remain in place.
- E 7. (ASIIN 3) It is recommended to provide additional support with regards to scientific research and writing and improve supervision to support students with title-projects.
- E 8. (ASIIN 5.1) It is recommended to update the literature.

## **G Comment of the Technical Committee 08 - Agriculture, Nutritional Sciences and Landscape Architecture (20.11.2020)**

*Assessment and analysis for the award of the ASIIN seal:*

The Technical Committee discusses the procedure and agrees with the assessment of the peers.

The Technical Committee recommends the award of the seals as follows:

<b>Degree Programme</b>	<b>ASIIN-seal</b>	<b>Subject-specific label</b>	<b>Maximum duration of accreditation</b>
Ba Forestry Sciences Engineering	With requirements for one year	-	30.09.2027

### **Requirements**

- A 1. (ASIIN 2.1) Provide a statistical overview of the reasons for programme abandonment or failure, as well as an analysis and a plan with specific measures to reduce abandonment and failure.
- A 2. (ASIIN 3) Develop and implement a strategy to increase the number and proportion of graduates with a degree.
- A 3. (ASIIN 3) Ensure all graduates complete a thesis /dissertation or final project which comprises minimum scientific requirements in terms of citation, theoretical foundation, methodology and discussion.
- A 4. (ASIIN 6) Teachers must discuss evaluation results with students.

### **Recommendations**

- E 1. (ASIIN 2.1) It is recommended to increase the amount of English-language contents in the curriculum.
- E 2. (ASIIN 2.1) It is recommended to bolster the implementation of the transversal axes by providing teachers with additional guidance

- E 3. (ASIIN 2.1) It is recommended to increase the curriculum contents and field trips related to social, political and economic aspects of forest and land use.
- E 4. (ASIIN 2.1) It is recommended to create well differentiated training routes perceived to be meaningful by students and employers.
- E 5. (ASIIN 2.1) It is recommended to reduce content overlaps between modules.
- E 6. (ASIIN 2.3, 4.2) It is recommended to increase the face-to-face interaction between teachers and students (for example with video conference) while COVID restrictions remain in place.
- E 7. (ASIIN 3) It is recommended to provide additional support with regards to scientific research and writing and improve supervision to support students with title-projects.
- E 8. (ASIIN 5.1) It is recommended to update the literature.

## H Decision of the Accreditation Commission (03.12.2020)

*Assessment and analysis for the award of the subject-specific ASIIN seal:*

The Commission discusses the procedure.

With regards to the final projects, the Commission notes that the thesis projects, which are not credited and written by the students to obtain the degree “*titulado*”, are optional and therefore not of primary concern. Since the development of a strategy to increase the number of “*titulados*” concerns an optional portion of the programme, the Commission is of the opinion that this should be a recommendation, not a requirement.

The Commission notes that the only mandatory final project, which must be completed by all students, is the Internship Report. This report, however, is insufficient in terms of scientific contents. The Commission notes that all individuals completing the programme, including both *pasantes* and *titulados*, must complete a thesis or final project comprising appropriate scientific requirements. Furthermore, the Commission notes that all graduates, including both *pasantes* and *titulados*, must receive Diploma Supplements – for this, the Commission adds another requirement.

Finally, the Commission adjusts the recommendation concerning the update of the literature with the specification that this refers to the literature listed in the module descriptions. In all other respects, the Commission follows the suggestions of the peers and the Technical Committee.

The Accreditation Commission for Degree Programmes decides to award the following seals:

<b>Degree Programme</b>	<b>ASIIN-seal</b>	<b>Subject-specific label</b>	<b>Maximum duration of accreditation</b>
Ba Forestry Sciences Engineering	With requirements for one year	-	30.09.2027

### Requirements

- A 1. (ASIIN 2.1) Provide a statistical overview of the reasons for programme abandonment or failure, as well as an analysis and a plan with specific measures to reduce abandonment and failure.

- A 2. (ASIIN 3) Ensure all graduates (pasantes and titulados) complete a thesis / final project which comprises appropriate scientific requirements in terms of citation, theoretical foundation, methodology and discussion.
- A 3. (ASIIN 5.2) Ensure that a diploma supplement is distributed to all graduates (pasantes and titulados) of the programme.
- A 4. (ASIIN 6) Teachers must discuss evaluation results with students.

### **Recommendations**

- E 1. (ASIIN 2.1) It is recommended to increase the amount of English-language contents in the curriculum.
- E 2. (ASIIN 2.1) It is recommended to bolster the implementation of the transversal axes by providing teachers with additional guidance.
- E 3. (ASIIN 2.1) It is recommended to increase the curriculum contents and field trips related to social, political and economic aspects of forest and land use.
- E 4. (ASIIN 2.1) It is recommended to create well differentiated training routes perceived to be meaningful by students and employers.
- E 5. (ASIIN 2.1) It is recommended to reduce content overlaps between modules.
- E 6. (ASIIN 2.3, 4.2) It is recommended to increase the face-to-face interaction between teachers and students (for example with video conference) while COVID restrictions remain in place.
- E 7. (ASIIN 3) Develop and implement a strategy to increase the number and proportion of graduates with a degree.
- E 8. (ASIIN 3) It is recommended to provide additional support with regards to scientific research and writing and improve supervision to support students with title-projects.
- E 9. (ASIIN 5.1) It is recommended to update the literature references in the module descriptions.

The Faculty of Forestry Sciences is a High Education Institution (HEI) which has the Forestry Sciences Engineering Study Programme at an undergraduate level, its general objective is to train engineers in Forestry Sciences who master the professional competences of their area, for responding to the social, labour market and profession needs; and with them propitiate and strengthen the development of the forest sector in the regional, state and national scopes.

The Faculty of Forestry Sciences is a High Education Institution (HEI) which has the Forestry Sciences Engineering Study Programme at an undergraduate level, its general objective is to train engineers in Forestry Sciences who master the professional competences of their area, for responding to the social, labour market and profession needs; and with them propitiate and strengthen the development of the forest sector in the regional, state and national scopes.

To achieve the fulfilling of its general objective, the FSESP poses the following **specific objectives**:

- Training graduates who develop generic competences, which allow them integrating to society and to the globalized world with enough tools as to respond the forest sector problematic at all its levels.
- Developing specific competences in the graduates, to intervene in the different labour market problematic of Forestry Sciences Engineering, which allows them developing processes, methodologies and projects that influence the sustainable development of the region and country.
- Promoting in the graduates an integral training which allows them developing skills and attitudes in benefit of society and the forest sector where he/she is going to provide his/her services, to offer, identity hold, inclusion and professional ethics that assure their social and professional insertion.

From the former the study plan is structured under the following **curricular objectives**:

- Identifying and characterizing the species of forestry interest and the plant communities, based on botanic, anatomic, physiologic, genetic principles and their eco-silvicultural interactions, to quantify forest resources.
- Knowing and applying the regulations that rule the forest activity at a local, state and national level, through the knowledge of laws and regulations that rule the management of forest resources, for generating a sustainable use.
- Applying the scientific, technical and cultural information, with a critical and constructive mind, through the use of present communication technologies, for an integral development of the students.
- Promoting the oral and written communication, investigation and team work capabilities, as well as the creativity and Independence, through the active participation of the students in cultural, scientific, sportive and social activities, for a better development and integration into society and in their professional performance.
- Developing timber and nontimber managing programmes, by means of the knowledge of forest resources stocks, and by proposing silvicultural alternatives according to the technical condition of the forest resource, in order to guarantee the sustainable use of forest resources.
- Identifying the impact degree of the degraded areas in forest ecosystems, by means of field trips, use of GIS, to propose conservation and restoration actions for the degraded systems.

H Decision of the Accreditation Commission (03.12.2020)

FIRST	SECOND	TIRTH	FOURTH	FIFTH	SIXTH	SEVENTH	EIGHTH	NINETH
MATHEMATICS 5C	NUMERICAL ANALYSIS 5C	INTRODUCTORY STATISTICS 4C	FORESTRY EXPERIMENTATION 5C	SAMPLING AND FOREST RESOURCE INVENTORY 6C	SILVICULTURE OF TEMPERATE FORESTS 6C	FORMULATION AND EVALUATION OF PROJECTS 6C	RESEARCH SEMINAR II 4C	PROFESSIONAL RESIDENCE 15C
ORGANIC AND INORGANIC CHEMISTRY 5C	BIOCHEMISTRY 5C	TREE PHYSIOLOGY 6C	FOREST MEASUREMENT 5C	WATERSHED 6C	WOOD ANATOMY AND TECHNOLOGY 6C	FOREST INDUSTRIES 6C	ELECTIVE IV 5C	
PLANT BIOLOGY 5C	FOREST BOTANY 5C	FOREST NURSERIES 6C	FOREST SOCIOLOGY 3C	FOREST POLICY AND LEGISLATION 4C	FOREST ADMINISTRATION 4C	RESEARCH SEMINAR I 4C	ELECTIVE V 5C	
READING AND WRITING 6C	BIOGEOGRAPHY 5C	FOREST SOILS 6C	FOREST ENTOMOLOGY AND PATOLOGY 5C	RESTORATION AND CONSERVATION OF FOREST SOILS 6C	FOREST GENETICS 6C	ELECTIVE I 5C	ELECTIVE VI 5C	
COMPUTING 6C	FUNDAMENTAL OF PHYSICAL 5C	RESEARCH METODOLOGY 4C	DIGITAL CARTOGRAPHY 5C	GEOGRAPHIC INFORMATION SYSTEMS 6C	FOREST SUPPLY 6C	ELECTIVE II 5C	ELECTIVE VII 5C	
SKILLS OF CRITICAL AND CREATIVE THINKING 6C	ENVIROMENTAL EDUCATION 6C	FOREST ECOLOGY 6C	REFORESTATION 5C	NON TIMBER FOREST PRODUCTS 6C	SUSTAINABLE HANDLING FOREST RESOURCES 6C	ELECTIVE III 5C		
33	31	32	28	34	34	31	24	15