



## IDENTIFYING DATA

### Quality control and prevention of occupational hazards in the forestry industry

|                     |                                                                                                                 |          |      |            |
|---------------------|-----------------------------------------------------------------------------------------------------------------|----------|------|------------|
| Subject             | Quality control and prevention of occupational hazards in the forestry industry                                 |          |      |            |
| Code                | P03G370V01804                                                                                                   |          |      |            |
| Study programme     | Grado en Ingeniería Forestal                                                                                    |          |      |            |
| Descriptors         | ECTS Credits                                                                                                    | Choose   | Year | Quadmester |
|                     | 6                                                                                                               | Optional | 4th  | 2nd        |
| Teaching language   | Spanish<br>Galician                                                                                             |          |      |            |
| Department          |                                                                                                                 |          |      |            |
| Coordinator         | González Prieto, Óscar                                                                                          |          |      |            |
| Lecturers           | González Prieto, Óscar                                                                                          |          |      |            |
| E-mail              | oscargprieto@uvigo.es                                                                                           |          |      |            |
| Web                 | <a href="http://www.forestales.uvigo.es">http://www.forestales.uvigo.es</a>                                     |          |      |            |
| General description | Introduction to the systems of quality control and management of jobs risks. Methods of continuous improvement. |          |      |            |

## Training and Learning Results

|      |                                                                                               |
|------|-----------------------------------------------------------------------------------------------|
| Code |                                                                                               |
| C39  | Ability to know, understand and use the principles of quality control in the forest industry. |
| C40  | Ability to know, understand and use the principles of industrial safety and hygiene.          |
| D5   | Capacity for information management, analysis and synthesis                                   |
| D8   | Ability to solve problems, critical reasoning and decision making                             |

## Expected results from this subject

| Expected results from this subject                                                            | Training and Learning Results |
|-----------------------------------------------------------------------------------------------|-------------------------------|
| Ability to know, understand and use the principles of quality control in the forest industry. | C39                           |
| Ability to know, understand and use the principles of industrial safety and hygiene.          | C40                           |
| Capacity for information management, analysis and synthesis                                   | D5                            |
| Ability to solve problems, critical reasoning and decision making                             | D8                            |

## Contents

| Topic                                       |                                                           |
|---------------------------------------------|-----------------------------------------------------------|
| 1.- Forest industry and quality             | 1.1. General concepts                                     |
| 2.- General quality concepts                | 2.1 Definition of quality                                 |
|                                             | 2.2. Definition of Systems of quality                     |
|                                             | 2.3.-Evolution of the systems of quality                  |
|                                             | 2.4. Profits of the quality                               |
|                                             | 2.5. Organisational model of the quality                  |
|                                             | 2.6. Commitment of the direction                          |
|                                             | 2.7. Human team                                           |
| 3.- Norms ISO 9001: 2008 and ISO 9004: 2009 | 3.1 Aims                                                  |
|                                             | 3.2. Scope                                                |
|                                             | 3.3. Approach                                             |
|                                             | 3.4. Points of norm                                       |
| 4.- As implant a system of quality          | 4.1. Phases of the implantation of a system of management |
|                                             | 4. 2. Process of the certification                        |
|                                             | 4.3. Orientation to the management by processes           |
|                                             | 4.4. Management of the improvement of a process           |

|                                                                             |                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.- Audits of Quality                                                       | 5.1. Definition of audit<br>5.2. Types of audit<br>5.3. Process of audit<br>5.4. Team of audit<br>5.5. Preparation of the audit<br>5.6. Development of the audit.<br>5.7. Report of audit                                                                               |
| 6.- The marked CE of wooden products for employment in the construction     | 6.1. Realisation of the marked CE of products. Phases of the process                                                                                                                                                                                                    |
| 7.- Foundation of the technicians of improvement of the conditions of work. | 7.1.- Technical of prevention of labour risks.<br>7.2.- Norma and signaling in security.<br>7.3.- Collective and individual protection<br>7.4.- Plans of emergency and autoprotection.<br>7.5.- Toxic and dangerous waste<br>7.6.- Installations against forestry fire. |
| 8.- Security in the work                                                    | 8.1.- Accidents of Work<br>8.2.- Analysis and general evaluation of the risk of accident.                                                                                                                                                                               |
| 9.- Industrial hygiene.                                                     | 9.1.- Concepts and aims.<br>9.2.- Normative legal specific.<br>9.3.- Physical agents; noise, vibrations<br>9.4.- Biological agents<br>9.5.- Medicine of the work: Pathologies of labour origin.<br>9.6.- first aid And first helps.<br>9.7.- Ergonomics and psicocology |

## Planning

|                                 | Class hours | Hours outside the classroom | Total hours |
|---------------------------------|-------------|-----------------------------|-------------|
| Case studies                    | 10          | 10                          | 20          |
| Studies excursion               | 4           | 2                           | 6           |
| Lecturing                       | 30          | 66                          | 96          |
| Laboratory practical            | 4           | 0                           | 4           |
| Collaborative Learning          | 1           | 0                           | 1           |
| Problem and/or exercise solving | 1           | 20                          | 21          |
| Objective questions exam        | 1           | 0                           | 1           |
| Essay questions exam            | 1           | 0                           | 1           |

\*The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

## Methodologies

|                        | Description                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Case studies           | Seminars of approach and resolution of practical cases with oral presentation                                                                                                                                                                                                                                                                                                    |
| Studies excursion      | Knowledge of the implantation of systems of quality in companies of transformation of the wood                                                                                                                                                                                                                                                                                   |
| Lecturing              | Explanation Of theoretic concepts and exemplifications                                                                                                                                                                                                                                                                                                                           |
| Laboratory practical   | Use of basic tools for quality control.                                                                                                                                                                                                                                                                                                                                          |
| Collaborative Learning | The tutorials will be carried out both in person or by telematic means (email, remote campus, doubt forums, Moovi). For those students who request it, they can be carried out, to the extent possible, outside the indicated hours. Both the hours and the place of the tutorials will be indicated at the beginning of the course through the officially established channels. |

## Personalized assistance

| Methodologies          | Description                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Collaborative Learning | The tutorials will be carried out both in person or by telematic means (email, remote campus, doubt forums, Moovi). For those students who request it, they can be carried out, to the extent possible, outside the indicated hours. Both the hours and the place of the tutorials will be indicated at the beginning of the course through the officially established channels. |

## Assessment

|                      | Description                                                                                              | Qualification | Training and Learning Results |
|----------------------|----------------------------------------------------------------------------------------------------------|---------------|-------------------------------|
| Studies excursion    | Real visits to industrial installations                                                                  | 5             | C39<br>C40                    |
| Lecturing            | Active participation in the class room                                                                   | 10            | C39<br>C40                    |
| Laboratory practical | Assistance and active participation to practical sessions of handle of basic tools of control of quality | 10            | C39 D5<br>C40 D8              |

|                                 |                                                                          |    |            |          |
|---------------------------------|--------------------------------------------------------------------------|----|------------|----------|
| Problem and/or exercise solving | Preparation by heart of practices with basic tools of control of quality | 15 | C39<br>C40 |          |
| Objective questions exam        | Test of knowledge of the matter                                          | 30 | C39<br>C40 | D5<br>D8 |
| Essay questions exam            | Test of the knowledge of the matter                                      | 30 | C39<br>C40 | D5<br>D8 |

#### Other comments on the Evaluation

Exam calendar: according to official information from the School of Forest Engineering (check the official website for updated information)

Evaluation in continuous evaluation modality; Master class: 10%, Laboratory Practices: 10%, Theoretical content exam: 30%, Objective theoretical content exam: 30%, Practical memory delivery: 15%, Exit and memory delivery: 5%.

Evaluation in global evaluation modality; Theoretical content exam: 35%, Theoretical/practical content exam: 35%; Alternate memory: 30%.

#### Sources of information

##### Basic Bibliography

Dale H. Besterfield, **Control de calidad**, 978-607-442-121-7, Pearson Educación, 2009

##### Complementary Bibliography

Cuatrecasas Arbós, Lluís, **Gestión integral de la calidad : implantación, control y certificación**, 84-8088-282-4, Gestión 2000, 1999

Armero Fernández, Lucía, **Manual de prevención de riesgos laborales**, 978-84-18330-02-5, 2020

Igartua Miró, María Teresa, **Sistema de prevención de riesgos laborales**, 978-84-309-7967-7, Tecnos, 2020, 2020

Cassini Gómez de Cádiz, Javier, **Guía práctica en prevención de riesgos laborales : una aproximación desde la experiencia**, 978-84-1390-560-0, Editorial Aranzadi, S.A.U., 2021

Baquero Serrano, Carmen, **Manual básico de prevención de riesgos laborales**, 978-84-4543-925-8, Centro de Estudios Financieros, 2019, 2019

#### Recommendations

##### Subjects that continue the syllabus

Environmental Engineering/P03G370V01609

##### Subjects that are recommended to be taken simultaneously

Primary wood processing industries/P03G370V01706

#### Other comments

Optional subject for dual training projects as was established by the memory of the degree.