Environmental and Recycling Technology (M. Eng.)

Module – Number		**873**		**Compulsory**
Name of Module		**Scientific Practice**		
Person Responsible		Prof. Dr.-Ing. Viktor Wesselak		
Title of the Course		Scientific Practice		
Trial Identification				
Semester		Qualification semester		
Form of Course	Language	Lecture		English
SWS/ ECTS/ Workload		4	5	150
Formal Prerequisites		Only for graduates holding a Bachelor of Engineering degree		

1. Contents and Qualification Objectives

Contents:

Students are taught the acquisition, evaluation and preparation of technical information as a central working technique in the engineering sciences, both in preparation for their master thesis and for their professional life.

1 What does scientific research mean?

2. Literature research

Libraries and databases for the engineering sciences - Search techniques - Online search in free and fee-based databases - Content indexing of a library using the example of the University of Applied Sciences Nordhausen - Dealing with tessaurs

3. Technical standards

Objectives and procedures of technical standardization - National and international standards boards - Researching and reading technical standards

4. Patents and industrial property rights

Objectives and procedures in industrial property protection – patens, utility models, trademarks and designs - national and international patent organizations – German employee invention law - searching and reading patents - patentability of software

5. Writing of academic texts and lectures

Objectives and structure - Literature references - Lecture structure - Presentation techniques - Examples of bad practice

Learning goals:

After successful completion of the module, students are able to research scientific or technical information, to procure it and to classify the research results with regard to their completeness and credibility. Furthermore, they are aware of the importance and practice of correct citation.

2. Forms of Teaching

The module is a lecture with practical computer exercises and with active involvement of the students. The students apply their knowledge in writing a short acedemic paper on a given technical topic.

3. Prerequisites for Participating

none

4. Usability of the Module

This module is a compulsory module in the qualification semester for the Renewable Energy Systems (M. Eng.) Master's Programme.

5. Requirements for the Award of Credits

Prerequisite for the award of credit points is the successful completion of the academic paper and its timely submission or presentation.

6. Credits and Grades

The module grade corresponds to the grade of the academic paper. With the module grade 5 credit points (ECTS) are awarded.

7. Frequency of the Module

The module is offered for the qualification semester every winter semester.

8. Work Load

Participation in the course (25 h); preparation and follow-up (to the lectures/seminars) (25 h); writing an academic paper (100 h)
The entire workload encompasses 150 hours, which corresponds to 5 ECTS credit points.

9. Duration of Module

The module must be completed within one semester.