### Hochschule Ostwestfalen-Lippe University of Applied Sciences

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Master's Examination Regulations for the Degree Programme
Production Engineering and Management
at Hochschule Ostwestfalen-Lippe
(MPO PEM)

of 4 February 2013

# Master's Examination Regulations for the Degree Programme Production Engineering and Management at Hochschule Ostwestfalen-Lippe (MPO PEM)

#### of 25 January 2012

Hochschule Ostwestfalen-Lippe has adopted the following Master's Examination Regulations as rules pursuant to § 2 (4) and § 64 (1) of the Higher Education Act (*Hochschulgesetz* - HG) of the Federal State of North Rhine-Westphalia of 31 October 2006 (GV. NRW. p. 474), last amended by act of 8 October 2009 (GV. NRW. p. 516):

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#### I. General Information

#### § 1 Scope

These Master's Examination Regulations regulate the schedule of studies and the Master's examination in the degree programme "Production Engineering and Management" at Hochschule Ostwestfalen-Lippe (HS OWL). The degree programme is run as a double degree programme with the partner university Università degli Studi di Trieste (UNITS).

### § 2 Objective of the Course and Purpose of the Master's Examination

- (1) The aim of the course is that, following a first degree, students will acquire an understanding of in-depth scientific knowledge and approaches of a technical, economic and methodological nature and will be qualified to continue to develop this knowledge themselves and, without assistance, produce responsible solutions to complex problems both in practice and in research and development in a scientific manner.
- (2) The Master's examination is intended to establish whether the candidate has acquired in-depth specialised knowledge and is capable of producing independent solutions to complex problems using scientific knowledge and methods.

#### § 3 Master's Degree

Following a pass in the Master's examination, the academic degree "Master of Science", "M.Sc." for short, is awarded by Hochschule Ostwestfalen-Lippe and the academic degree "Laurea Magistrale" is awarded by the Università degli Studi di Trieste.

### § 4 Study Requirements

- (1) The requirements for the commencement of studies are
- the Fachhochschulreife qualification (entrance qualification for studies at universities of applied sciences) or a qualification recognised as being equivalent to this and
- 2. evidence of a Bachelor's or *Diplom* qualification in a degree programme in the area of Industrial Engineering, at HS OWL in particular in the degree programmes Wood Technology, Production Engineering or Industrial Engineering, with a standard period of study of at least six semesters. In exceptional cases, evidence may be accepted of a Bachelor or *Diplom* examination in another degree programme spanning at least six semesters in which comparable subject matter to that in the above degree programmes is substantially covered.

- 3. in addition, evidence of a final overall grade of 3.0 or higher in the degree programme completed in accordance with No. 2 and
- evidence of a command of English, verified by the "First Certificate in English FCE" (which corresponds to Level B 2 of the Common European Framework of Reference for Languages) or equivalent evidence.
- (2) The Teaching Committee shall decide whether the requirements referred to under Clause 1 No. 2 Sentence 2 have been met.
- (3) If the third attempt at retaking the examination in an examination subject in another degree programme at Hochschule Ostwestfalen-Lippe was also assessed as "fail" or is deemed to have been assessed as "fail" and this subject has the same subject number in the Examination Regulations of the other degree programme and in these Examination Regulations for the Master's programme in Production Engineering and Management and the subject concerned is a compulsory subject in the Master's programme in Production Engineering and Management, then the applicant will be unable to enrol for the Master's programme in Production Engineering and Management.

# § 5 Standard Period of Study, Total Credit Hours, Study Locations, Language of Instruction and Examination, Examinations at the Partner University

- (1) The standard period of study including the Master's examination is four semesters. Students can start studying at HS OWL in either the summer semester or the winter semester.
- (2) A total of 120 credit points must be obtained.
- (3) The schedule of studies stipulates the following study locations depending on the status of UNITS or HS OWL as the "home university" \*\* and depending on when studies were commenced:

a) "Home university": UNITS

Commencement of studies: winter semester (WS)

Semester	Places of study
1st semester (WS)	UNITS
2nd semester (SS)	UNITS
3rd semester (WS)	HS OWL
4th semester (SS)	HS OWL or UNITS

b) "Home university": HS OWL

Commencement of studies: winter semester (WS)

Semester	Places of study
1st semester (WS)	HS OWL
2nd semester (SS)	UNITS
3rd semester (WS)	HS OWL
4th semester (SS)	HS OWL or UNITS

<sup>\*\*</sup> Students whose "home university" is HS OWL are called HS OWL students below. Students whose "home university" is UNITS are called UNITS students below.

c) "Home university": HS OWL

Commencement of studies: summer semester (SS)

Semester	Places of study
1st semester (SS)	HS OWL
2nd semester (WS)	HS OWL
3rd semester (SS)	UNITS
4th semester (WS)	HS OWL or UNITS

- (4) Courses and examinations in the Master's programme in Production Engineering and Management are held in English at UNITS. Courses and examinations at HS OWL are held partly in English and if subjects need only be completed by HS OWL students partly in German. HS OWL students generally also have the opportunity to complete the whole degree programme in English particularly if it is not possible to furnish evidence of sufficient command of the German language (TestDaF or equivalent evidence). In this case, students must pass all English subjects from Subject Groups B, C, E, F and G listed in Appendix 1 of the Course Curriculum at HS OWL (1st to 3rd semesters). There are then no study options.
- (5) The provisions laid down by the partner university apply to the module examinations to be sat at UNITS (Appendix 1) as well as to the completion of the final examination part (Master thesis) at UNITS. The partner university's regulations governing examinations apply to the examination bodies of the partner university.

### § 6 Structure of Examinations and Examination Dates

- (1) The course concludes with the Master's examination. The Master's examination consists of module examinations and a Master thesis as the concluding examination, which comprises a written part and an oral part (colloquium).
- (2) The course and the examinations should be designed so that the course and the Master's examination can be concluded by the end of the fourth semester. To this

end, the candidate must receive notification in good time concerning both the type and number of examinations and the dates on which these are to be taken and also concerning the date on which the topic of the written part of the Master thesis is to be released and the date on which the written part of the Master thesis shall be submitted.

(3) Registration for the concluding part of the Master's examination (application for admission to the written part of the Master thesis) will generally be in the fourth course semester.

### § 7 Examination Committee

- (1) The competent department shall form an Examination Committee to organise the examinations and carry out the tasks assigned by these Examination Regulations. The Examination Committee shall consist of seven persons: the chair, the deputy and five further members. The chair, the deputy and two further members shall be selected from the group of professors, one member shall be selected from the group of academic staff and two members from the group of students. Personal deputies are selected accordingly for the members of the Examination Committee, with the exception of the chair and the deputy. The period of office for the student members and their deputies shall be one year, and four years for the other members. Members may be re-elected.
- (2) The Examination Committee is an authority within the meaning of the law on administrative procedures.
- (3) The Examination Committee shall ensure that the provisions of the Examination Regulations are complied with and that the examinations are held in accordance with the Examination Regulations. It shall be responsible in particular for ruling on appeals made against decisions taken in examination procedures. The Examination Committee shall report to the department on the development of the examinations and periods of study. The report shall be published in an appropriate manner by the university. The Examination Committee shall submit proposals for the reform of the Examination Regulations, the Study Regulations and the Curriculum. The Examination Committee may delegate routine tasks to the chair; this shall not apply to decisions on appeals.
- (4) The Examination Committee shall have a quorum if, in addition to the chair or his or her deputy and one further professor, at least two further members with voting power are present. The Examination Committee shall adopt decisions by a simple majority. The chair's vote shall be the deciding vote in the event of a tie. The student member of the Examination Committee shall not be involved in pedagogical/scientific decisions, in particular in the recognition or other assessment of previous studies and examinations, nor in appointing examiners and assessors. The student members of the Examination Committee shall not participate in consultation and adoptions of resolutions on matters concerning the setting of examination assignments or their own examination.

- (5) The members of the Examination Committee shall have the right to be present during examinations, with the exception of student members who wish to take the same examination on the same day.
- (6) Examination Committee meetings shall be closed to the public. The members of the Examination Committee and their deputies shall observe official secrecy. Those members who are not public servants shall be bound to confidentiality by the chair of the Examination Committee.
- (7) The candidate shall be immediately notified in writing of any incriminatory decisions taken by the Examination Committee or its chair; an English translation shall be attached. The candidate should be given prior opportunity for a legal hearing. § 2 (3) No. 3 of the Administrative Procedures Act for the Federal State of North Rhine-Westphalia, in particular concerning exceptions in respect of the obligation to allow legal hearings and to state reasons in assessments of a scientific or artistic nature, shall remain unaffected.

### § 8 Examiners and Assessors

- (1) The Examination Committee shall appoint the examiners and assessors. It may delegate the appointment to the chair. Only those who have at least taken the corresponding Master's examination or have a comparable qualification and, providing there are no compelling reasons for a departure from this requirement, have carried out independent teaching work in the subject area to which the examination relates may be appointed as examiners; if several examiners are to be appointed, at least one must have taught the examination subject in question. Only those who have passed the corresponding Master's examination or a comparable examination or have a comparable qualification may be appointed as assessors.
- (2) Examiners shall be independent in their conduct of examinations.
- (3) The Examination Committee shall ensure that the examination obligations are distributed as equally as possible amongst the examiners.
- (4) The chair of the Examination Committee shall ensure that the names of the examiners are made known to the candidate at least two weeks before the date of the respective examination.
- (5) § 7 (6) Sentences 2 and 3 shall apply accordingly to examiners and assessors.

## § 9 Recognition of Previous Studies, Credits and Examinations, Assignment to a Higher Semester

(1) Credits and examinations obtained in the same or in a comparable degree programme at a state or state-recognised higher education institution within the remit of the German Constitution shall officially be recognised.

- (2) Credits and examinations in other degree programmes shall be recognised if their equivalence has been established. Equivalence shall be established if the credits and examinations essentially correspond in terms of content, scope and requirements to those of the degree programme for which recognition is being applied for, and no major difference can be proven. A comprehensive consideration and overall assessment shall be carried out, rather than a schematic comparison.
- (3) The Examination Committee shall be responsible for recognition and assignment to a higher semester pursuant to Clauses 1 to 3. In the event of any doubt, the Examination Committee shall decide after consulting examiners responsible for the subjects.
- (4) If credits and examinations are recognised, the grades where the grade systems are comparable shall be adopted and included in the calculation of the final grade. Where grade systems are not comparable, the grade "pass" shall be recorded.
- (5) The recognition of credits and examinations requires that the student submits a written application enclosing the documents required for recognition. The documents must contain information about the credits and examinations passed and about the other knowledge and skills gained that are to be recognised. In the event of the recognition of credits from degree programmes, as a rule the Examination Regulations of the degree programme together with a description of the module and the individual Transcript of Records or comparable document shall be presented.
- (6) If students who are enrolled on another degree programme at Hochschule Ostwestfalen-Lippe and on the degree programme pertaining to these Examination Regulations attempt to sit an examination in a subject that has the same number in these Examination Regulations and in the Examination Regulations pertaining to the other degree programme at Hochschule Ostwestfalen-Lippe, the examination in such a subject will be officially recognised in both degree programmes. Examination attempts, including failed attempts, in such subjects count towards the account for examination attempts and towards the remaining number of resits within both degree programmes; this also applies to examinations in additional subjects. Sentences 1 and 2 apply accordingly if a student is enrolled on several other degree programmes at Hochschule Ostwestfalen-Lippe and on the degree programme pertaining to these Examination Regulations.
- (7) If a student changes to the degree programme pertaining to these Examination Regulations from another degree programme at Hochschule Ostwestfalen-Lippe, examinations in subjects of the previous degree programme shall officially be recognised as examinations in the new degree programme, provided that the subjects in the Examination Regulations pertaining to the previous degree programme and in the new degree programme have the same subject number; this also applies to examinations in additional subjects. If they are examinations that are subject to the account for examination attempts within the new degree programme, all attempts to pass this examination shall be deducted from the account for examination attempts. Sentences 1 and 2 apply accordingly if a student additionally embarks on studies according to these Examination Regulations, provided that the subject number in the Examination Regulations of the other degree programme and that of the new or additional degree programme is identical.

- (8) Clause 7 applies accordingly for failed examinations. In the event of failed attempts, the maximum number of resits permitted per subject is reduced by the number of failed attempts.
- (9) If examinations taken within a degree programme at another higher education institution or for which the subjects cannot be identified based on the subject number are recognised in accordance with these Examination Regulations, and if the examinations are subject to an account for examination attempts in accordance with these Examination Regulations, then two attempts shall be deducted from the respective account for examination attempts for each examination covered. If the examination that is subject to this account is the final examination, only one attempt shall be deducted.

### § 10 Assessment of Examinations, Credits and ECTS Credits

(1) The grades for individual examinations shall be set by the respective examiners. The following grades should be used for the grading:

1.00 = very good	=	an outstanding performance;
2.00 = good	=	a performance considerably higher than average requirements;
3.00 = satisfactory	=	a performance corresponding to average requirements;
4.00 = sufficient	=	a performance which still satisfies the requirements despite deficiencies;
5.00 = fail	=	a performance which falls short of the requirements due to serious deficiencies.

The intermediate values 1.25, 1.50, 1.75, 2.25, 2.50, 2.75, 3.25, 3.50 and 3.75 may be used to differentiate between examination performances.

- (2) An examination has been passed if the subject grade is at least "sufficient" (4.00).
- (3) If several examiners are involved in an examination, they shall jointly assess the overall examination performance, unless otherwise determined in these Examination Regulations. If the assessment cannot be agreed upon, the grade shall be derived from the arithmetic mean of the individual assessments. If the arithmetic mean lies between two quarter grades arising from Clause 1, the result is rounded up to the next quarter grade in the student's favour.
- (4) When grades are derived from intermediate values, the following arithmetical values shall result in the following grades

up to 1.50	the grade	"very good"
over 1.50 up to 2.50	the grade	"good"
over 2.50 up to 3.50	the grade	"satisfactory"
over 3.50 up to 4.00	the grade	"sufficient"
over 4.00	the grade	"fail".

- (5) When the subject grades and the final grade are derived, only two decimal places shall be taken into consideration; all other decimal places shall be dropped without rounding.
- (6) The assessment of module examinations should be notified to students within four weeks. The assessment of the Master thesis shall be announced subsequent to the oral part of the Master thesis (Colloquium).
- (7) Credits (CR) in accordance with Appendix 1 shall be awarded for each module examination assessed as being at least "sufficient". The credits awarded under these Examination Regulations correspond to ECTS credits.
- (8) The grades awarded by the partner university shall be converted in accordance with Appendix 2; the grade "pass" is recorded for ungraded examinations.

### § 11 Retaking Examinations

- (1) Examinations which have been assessed as at least "sufficient" (4.00) cannot be retaken.
- (2) Module examinations which have not been passed or are deemed to have not been passed may be retaken not more than three times. Repeat examinations can also be taken at the partner university (UNITS). In this case, the examination conditions of the partner university offering the module/subject (HS OWL) apply; examiners at the partner university (HS OWL) offering the module/subject shall assess the performance.
- (3) A Master thesis which has not been passed or which is deemed to have not been passed may be repeated once. A failed attempt at the partner university in the same degree programme counts when calculating the number of attempts.

### § 12 Absence, Withdrawal, Cheating, Breach of Regulations

- (1) An examination shall be deemed to have been assessed as "fail" (5.00) if the candidate misses an examination without good reason or if he withdraws from an examination without good reason after the examination has begun. The same applies if a written examination assignment is not finished within the allotted time.
- (2) Candidates shall immediately notify the Examination Committee in writing of the reasons for their failure to appear and credibly substantiate these. In the event of illness, the candidate may be required to submit a medical certificate. The chair of the Examination Committee may, in individual cases, require the submission of a certificate from a medical examiner designated by the Examination Committee. If the Examination Committee accepts the reasons, this decision shall be notified to the candidate in writing; an English translation shall be attached.

- (3) If a candidate tries to influence an examination through deception, i.e. using inadmissible aids, the examination in question shall be deemed to have been assessed as "fail" (5.00); this determination shall be made by the respective examiner or invigilator and recorded. A candidate who disrupts the orderly course of the examination may be excluded from further participation in the examination by the respective examiner or invigilator, generally after prior warning; in this case, the examination in question shall be deemed to have been assessed as "fail" (5.00), and the reasons for the exclusion shall be recorded. In serious cases, the Examination Committee may exclude the candidate from taking further examinations.
- (4) The candidate may request within 14 days of their announcement that decisions made under Clause 3 Sentences 1 and 2 be reviewed by the Examination Committee.
- (5) Incriminating decisions made by the Examination Committee shall be immediately notified to the candidate in writing, with reasons, and accompanied by information on rights of appeal. An English translation shall be attached.

#### II. Module Examinations

### § 13 Objective, Scope and Form of Module Examinations

- (1) The aim of module examinations is to establish whether the candidate has mastered the essential aspects of the content and methods of the examination subjects and can independently apply the acquired knowledge and skills.
- (2) The examination requirements shall be geared towards the contents of the courses intended for the subject in question.
- (3) The form and scope of the module examinations are set out in §§ 17 to 22. The Examination Committee will normally establish the form of the examination in consultation with the examiners for all candidates in the respective examination at least eight weeks before the date of an examination.
- (4) A module examination has been passed if the examination performance is assessed as at least "sufficient".

### § 14 Admission to Module Examinations

- (1) Candidates may only be admitted to a module examination if they
  - 1. fulfil the course requirements (§ 4 (1)),
  - 2. have enrolled on the Master's programme in Production Engineering and Management at Hochschule Ostwestfalen-Lippe

- a) in accordance with § 48 (1) HG or
- b) have enrolled as cross-registered students in accordance with § 52 (1) HG or
- c) have been enrolled as cross-registered students in accordance with § 52 (2) HG,
- have fulfilled the admission requirements referred to in these Examination Regulations for the respective module examination or will fulfil them by a date set by the Examination Committee.
- (2) Elective subjects and submodules may be changed; this also applies if an elective subject or a submodule has definitively been failed or is deemed to have definitively been failed. § 5 (4) Sentences 3 to 5 and § 23 (2) Sentence 3 and (3) Sentence 3 remain unaffected. Changes made pursuant to Sentence 1 of this clause shall only be allowed until admission to the written part of the Master thesis has been granted.
- (3) Applications for admission should be sent in writing to the chair of the Examination Committee by the deadline set by the Examination Committee. The application should be made at the same time for all module examinations which the candidate aspires to take within the same examination period.
- (4) Unless previously submitted, the following documents should be appended to the application or should be handed in at a later date decided upon by the Examination Committee:
  - 1. evidence concerning the admission requirements referred to in Clause 1,
  - 2. a statement concerning previous attempts to take corresponding examinations and previous attempts to take a Master's examination and a preliminary or intermediate examination in the same degree programme,
  - 3. a statement concerning whether, in the case of oral examinations, the admission of listeners is opposed.

If it is not possible for the candidate to append a document required under Sentence 1 of this clause in the manner envisaged, then the Examination Committee may allow the evidence to be presented in some other way.

- (5) An application for admission to a module examination may not be withdrawn. Account shall be taken of the candidate's interest by enabling candidates to register to the examination shortly before the examination period. If a module examination is held outside an examination period, Sentence 1 applies accordingly.
- (6) The chair of the Examination Committee and, in the event of any doubt, the Examination Committee shall decide on admission.
- (7) Admission should be refused if
  - a) the requirements referred to in Clause 1 are not fulfilled or

- b) the documents are incomplete and have not been supplemented by the date set by the Examination Committee or
- c) the candidate has definitively not passed a corresponding examination or has definitively failed the Master's examination or a corresponding preliminary or intermediate examination on the same degree programme held at a location within the remit of the German Constitution or at the partner university.

Otherwise admission may only be refused if, within the remit of the German Constitution, the candidate has lost his entitlement to an examination in the same degree programme through missing a deadline for retaking it.

### § 15 Conducting Module Examinations

- (1) Module examinations are held out of class, unless specific provision is made for this in the forms of examination laid down in these Examination Regulations. The Examination Committee shall set the examination periods and make them known in good time.
- (2) The Examination Committee shall set the dates of the examinations and make them known in good time in advance generally at least two weeks before the first examination day of the respective examination period.
- (3) Candidates must produce an official identity document at the request of the examiner or invigilator.

#### § 16 Students in Special Situations

- (1) If a candidate demonstrates by means of a medical certificate or in some other way that he is not capable of taking the examination wholly or partially in the envisaged form due to a permanent physical handicap, the chair of the Examination Committee may allow an equivalent examination to be taken in some other form. He or she must ensure that any disadvantage for disabled persons is compensated for as much as possible by the arrangements for the examination conditions. In the event of any doubt, the chair of the Examination Committee may request further evidence.
- (2) With regard to students affected by the protection provisions referred to in §§ 3, 4, 6 and 8 of the Maternity Protection Act (*Mutterschutzgesetz*) or the parental leave periods under the Federal Child-Raising Allowance Act (*Bundeserziehungsgeldgesetz*), the Examination Committee may, on application by the student, take account of the individual's situation when determining the examination conditions governed by these Examination Regulations.
- (3) With regard to students who care for their spouse, registered partner, relative in the direct line or a person related by marriage in the first degree, if the latter is in

need of care, the Examination Committee shall, on application by the student, take account of the periods of absence caused by this care and the individual's situation when setting deadlines and dates governed by these Examination Regulations.

### § 17 Written Examination

- (1) The examination shall consist of a written examination lasting one to two hours. The written examination shall take place under supervision. The examiner shall decide on the allowance of aids.
- (2) The examination assignments for a written examination are usually set by just one examiner. If the module/subject is taught by several people, they shall jointly formulate the examination assignments.
- (3) Written examinations should be assessed by two authorised examiners. The Examination Committee may deviate from this in justified cases; the reasons shall be recorded.

### § 18 Programming Work

- (1) In the "programming work" type of examination, a computer program relating to the subject in question is created within a period of one to two hours on the basis of an assignment formulated in writing. Programming work takes place under supervision. The examiner shall decide on the allowance of aids. The computer program shall be stored on a data carrier to be stipulated by the examiner and/or as a file on a path and computer stipulated by the examiner. The candidate shall make a written record of his personal details, the full file name, file sizes, and the time and date when the file was saved, which is binding for the assessment.
- (2) The programming work examination assignment is generally set by just one examiner.
- (3) Programming work should be assessed by two authorised examiners. The Examination Committee may deviate from this in justified cases; the reasons shall be recorded.
- (4) If the computer program is not submitted in time or in the stipulated form, the examination shall be deemed to have been assessed as "fail" (5.00) pursuant to § 12 (1) Sentence 2.

### § 19 Oral Examination

(1) Oral examinations are generally held before an examiner in the presence of an expert assessor or before several examiners (examination before a panel of examiners) in the form of group or individual examinations. As a matter of principle, each

candidate will be tested in each area by only one examiner. The duration of an oral examination is 30 to 35 minutes per candidate. The examiner must consult the assessor before determining the grade and, where there are several examiners, they must consult each other.

- (2) The main objects and results of the examination, in particular the facts forming the relevant criteria for the grading, shall be recorded in a report. The result of the examination shall be made known to the candidate following the oral examination.
- (3) Students intending to take the same examination during a later examination period shall be allowed to attend as listeners if space permits unless a candidate has opposed this when registering for the examination. Permission to attend does not extend to the discussions and announcement of the examination result.

### § 20 Presentation

- (1) In the "presentation" type of examination, an assignment relating to the subject in question is to be tackled without assistance; the solution and results are to be presented orally. The preparation time shall be at least four weeks. The duration of the presentation shall be set by the Examination Committee, taking into account the upper limit of 35 minutes per candidate. During the presentation, only questions regarding clarifications concerning the solution and results may be asked by the examiner(s). Those students who are admitted for the same examination subject in the same examination period are permitted to attend as listeners and may not be excluded by the candidate.
- (2) "Presentation" types of examination can also take place in class. The Examination Committee lays down the further details, in particular application deadlines.
- (3) The assignments shall be set by the competent member of the teaching staff and shall be announced to the students in a notice after their approval by the Examination Committee.
- (4) Otherwise § 19 shall apply accordingly.
- (5) Presentations are generally held before an audience and an examiner in the presence of an expert assessor or before several examiners (examination before a panel of examiners) in the form of individual examinations. Questions regarding clarifications concerning the solution and results may only be asked by the examiner(s). Only the content of the presentation, including the responses to the questions regarding clarifications, shall be assessed. The examiner must consult the assessor before determining the grade and, where there are several examiners, they must consult each other.
- (6) The main objects and results of the presentation, in particular the facts forming the relevant criteria for the grading, shall be recorded in a report. The result of the examination shall be made known to the candidate following the presentation.

### § 21 Composition with Colloquium

- (1) In the "Composition with Colloquium" type of examination, an assignment relating to the subject in question shall be tackled without assistance. Depending on the assignment, a written or digital composition, a sketched draft, a drawing, a workpiece or a model shall be prepared; combined forms are permissible. The assignment should contain advice on the scope of the composition. The composition is followed by a Colloquium. The composition shall be presented orally within the Colloquium. The composition and the Colloquium are assessed as one unit.
- (2) After approval by the Examination Committee, the assignment, including the stipulation of the deliverable to be prepared, the stipulation of the submission date (application deadline to the Colloquium) and the entity to which the composition should be submitted, shall be announced to students in a notice by the responsible member of the teaching staff.
- (3) The composition should be submitted to the entity shown on the written notification of the assignment upon registering for the Colloquium at the latest (registration for examination). The date of submission shall be recorded; if the composition is delivered by post, the relevant criterion for determining the date is the date it was received by the post office. When the composition is submitted, the candidate must provide a written assurance that he has prepared his work or, in the event of group work, his appropriately marked part of the work, without assistance and that he has not used any sources and aids other than those stated and identified in citations.
- (4) Otherwise § 20 (1) Sentences 2 and 3, (2) and (4) shall apply accordingly.

### § 22 Composition with Presentation

- (1) In the "Composition with Presentation" type of examination, an assignment relating to the subject in question shall be tackled without assistance. Depending on the assignment, a written or digital composition, a sketched draft, a drawing, a workpiece or a model shall be prepared; combined forms are permissible. The assignment should contain advice on the scope of the composition. The composition is followed by a presentation. The composition and the presentation are assessed as one unit.
- (2) Otherwise § 20 (1), (2) and (4) and § 21 (2) and (3) shall apply accordingly.
  - III. Master's Examination, Practical Phase, Additional Subjects

§ 23
Module Examinations for the Master's Examination

(1) In the Master's programme in Production Engineering and Management, credits in the subjects stipulated in Appendix 1 shall be obtained at HS OWL or UNITS by taking examinations pursuant to Clauses 2 to 4.

#### (2) HS OWL students must achieve

- 25 credits from examinations in five subjects from Subject Group B "Basics" (HS OWL),
- 5 credits from examinations in one subject from Subject Group C "International Competences" (HS OWL),
- 30 credits from Subject Group D (UNITS),
- 10 credits from examinations in two subjects (submodules) from Subject Group E "Management and Information Techniques of SME" (HS OWL),
- 10 credits from examinations in two subjects (submodules) from Subject Group F "Specialised Wood Processing" (HS OWL) and
- 10 credits from examinations in two subjects (submodules) from Subject Group G "Product and Process Development and Optimization" (HS OWL).

#### In addition,

- 6 credits shall be obtained from examinations in the subject "Seminar International Production Management" with subject number: 7902 (HS OWL)

or

- a minimum of 6 credits from the "Free Choice" list (UNITS).

The content of subjects dealt with in the previous degree programme may only be chosen with the consent of the competent Examination Committee.

If the necessary number of credits has been achieved or exceeded, other subjects in which credits are obtained are deemed to be additional subjects. § 14 (2) remains unaffected.

#### (3) UNITS students must obtain

- 28 credits in Subject Group A (UNITS),
- 30 credits in Subject Group D (UNITS),
- 10 credits from examinations in two subjects (submodules) from Subject Group E "Management and Information Techniques of SME" (HS OWL),
- 10 credits from examinations in two subjects (submodules) from Subject Group F "Specialised Wood Processing" (HS OWL) and
- 10 credits from examinations in two subjects (submodules) from Subject Group G "Product and Process Development and Optimization" (HS OWL).

#### In addition.

- 8 credits in examinations in the subject "Seminar International Production Management" with subject number: 7906 (HS OWL)

or

- 8 credits from the "Free Choice" list (UNITS)

shall be obtained.

The content of subjects dealt with in the previous degree programme may only be chosen with the consent of the competent Examination Committee.

If the necessary number of credits has been achieved or exceeded, other subjects in which credits are obtained are deemed to be additional subjects. § 14 (2) remains unaffected.

(4) The provisions laid down by the partner university apply to the module examinations to be taken at UNITS.

### § 24 Practical Phase

- (1) Students on the Master's programme in Production Engineering and Management shall complete a four-week practical phase.
- (2) The aim of the practical phase is primarily to apply the knowledge and skills acquired so far on the study programme and to reflect upon and assess the experience gained during the practical work.
- (3) The practical phase should take place after the lecture period of the third semester.
- (4) The Examination Committee shall decide on admission to the practical phase, the approval of work placements and the appointment of the supervisory professor. The Examination Committee can assign these duties to a member of the professorate of the competent department. In the event of any doubts or discrepancies, the Examination Committee shall decide the case.
- (5) The successful participation in the practical phase shall be confirmed by the supervisory professor if he or she has determined, in due consideration of the certificate issued by the training place and a report to be written in English by the student, that the student has performed the work assigned to him or her in the course of the practical phase satisfactorily, that he or she was deployed suitably and actively participated in the evaluation event of the practical phase. Active participation involves, in particular, holding a presentation on the practical phase in English.
- (8) Successful completion of the practical phase leads to 6 credits being awarded.

### § 25 Written Part of the Master Thesis

(1) The aim of the written part of the Master thesis is to demonstrate that the candidate is capable within a prescribed deadline of independently working on a practice-oriented complex task in his subject area both as regards details of the subject and the interdisciplinary contexts using scientific methods. The written part of the Master

thesis normally consists of the independent processing of a complex assignment, using scientific methods, and a detailed description and explanation of the approach taken. As a guide, the written part of the Master thesis should be around 40 pages long.

- (2) The written part of the Master thesis shall be issued and supervised by an examiner appointed by the Examination Committee in accordance with § 8(1). The candidate should be given an opportunity to put forward proposals for the topic of the written part of the Master thesis.
- (3) On application, the chair of the Examination Committee shall ensure that a candidate receives a topic for the written part of the Master thesis in good time.
- (4) The written part of the Master thesis may also be prepared in the form of group work.

### § 26 Admission to the Written Part of the Master Thesis

- (1) Students may only be admitted to the written part of the Master thesis if they
  - 1. fulfil the admission requirements for examinations in accordance with § 14 (1) No. 1 and 2 a) or c),
  - 2. have passed the module examinations in accordance with § 23 (2) and
  - 3. have proven successful participation in the practical phase.
- (2) The application for admission should be sent in writing to the chair of the Examination Committee. The following documents should be appended to the application, unless they are already available:
  - 1. evidence concerning the admission requirements referred to in Clause 1,
  - 2. a statement concerning previous attempts to work on a Master thesis and to take the Master's examination and, where appropriate, a preliminary or intermediate examination in the same degree programme.

A statement should be appended to the application concerning the examiner who is prepared to issue and supervise the written part of the Master thesis.

- (3) The application for admission may be withdrawn in writing without adding to the number of possible examination attempts until such time as the decision on the application is announced.
- (4) The chair of the Examination Committee and, in cases of doubt, the Examination Committee shall decide on admission. Admission should be refused if
  - a) the requirements referred to in Clause 1 have not been fulfilled or
  - b) the documents are incomplete or

c) in the area within the remit of the German Constitution or at the partner university a corresponding Master thesis by the candidate has been assessed as "fail" without the possibility of a resit or one of the examinations referred to in Clause 2 No. 2 has definitively been failed.

Otherwise admission may only be refused if, in the area within the remit of the German Constitution or at the partner university, the candidate has lost his entitlement to an examination in the same degree programme through missing a resit deadline.

### § 27 Issue and Preparation of the Written Part of the Master Thesis

- (1) The written part of the Master thesis shall be prepared in English with a brief description in German or English. The topic of the written part of the Master thesis shall be set by the person supervising the written part of the Master thesis. The written part of the Master thesis shall be issued via the chair of the Examination Committee. The day on which the topic is notified to the candidate shall be deemed to be the date of issue. The date shall be recorded.
- (2) The time allotted for the written part of the Master thesis shall be not more than three months. The subject, assignment and scope of the written part of the Master thesis should be limited by the supervisor so that the time allotted for the written part of the Master thesis can be observed. In exceptional cases, e.g. illness, the chair of the Examination Committee may extend the allotted time by up to four weeks after receiving a justified application from the candidate before the expiry of the deadline. The supervisor should be consulted concerning this application.
- (3) The topic of the written part of the Master thesis may be returned without specifying any reason once only and only within the first four weeks of the allotted time. In the event of a resit in accordance with § 11 (3) Sentence 1, return is only permissible if the candidate has not made any use of this option when preparing the first written part of the Master thesis.
- (4) § 16 shall apply accordingly.

### § 28 Submission of the Written Part of the Master Thesis

(1) The written part of the Master thesis shall be submitted within the specified time to the chair of the Examination Committee. The date of submission shall be recorded; if the composition is delivered by post, the relevant criterion for determining the date is the date it was received by the post office. When the written part of the Master thesis is submitted, the candidate must provide a written assurance that he has prepared his work or, in the event of group work, his appropriately marked part of the work without assistance and that he has not used any sources and aids other than those stated and identified in citations. If the written part of the Master thesis is not submitted within the specified time, the Master thesis shall be deemed to have been assessed as "fail" pursuant to § 12 (1) Sentence 2.

#### § 29 Colloquium

- (1) The colloquium (oral part of the Master thesis) supplements the written part of the Master thesis. The colloquium is generally open to the public, and commences with a presentation of the results of the written part of the Master thesis. The aim of the colloquium is to establish whether the candidate is able to orally describe and, without assistance, to justify the results of the written part of the Master thesis, the principles on which it is based, its interdisciplinary framework and its extra-disciplinary ramifications and to assess its significance in practice.
- (2) A candidate can only be admitted to the colloquium if
  - 1. the requirements referred to in § 26 (1) for admission to the written part of the Master thesis have been satisfied and
  - 2. the written part of the Master thesis has been submitted within the specified time.

The application for admission should be sent to the chair of the Examination Committee. The evidence concerning the admission requirements referred to in Clause 1 should be appended to the application, unless the Examination Committee has already received it; a statement concerning previous attempts to take corresponding examinations and whether the attendance of listeners is opposed should also be appended. The candidate may also apply for admission to the colloquium when registering for the written part of the Master thesis; in this case, admission to the colloquium takes place as soon as the Examination Committee has all the necessary evidence and documents. Otherwise § 26 (4) shall apply accordingly to admission to the colloquium and refusal thereof.

(3) The colloquium shall take the form of an oral examination and shall take around 20 minutes for each candidate. Only questions posed by the examiners are permissible. The provisions applicable to oral examinations (§ 19) shall apply accordingly to the colloquium.

### § 30 Assessment of the Master Thesis

(1) The written part of the Master thesis shall be assessed in writing in English by a minimum of two to four examiners. One of the examiners must have supervised the written part of the Master thesis. The second examiner and any further examiners shall be specified by the Examination Committee; an authorised examiner from UNITS may be appointed in consultation and with the support of the programme coordinators at HS OWL and UNITS. The colloquium shall be held jointly by the examiners specified for the written part of the Master thesis, whereby the examiner from UNITS shall generally participate in the colloquium via video telephony. The written part of the Master thesis and the associated colloquium shall be assessed as one unit. The examiners must consult one another before determining the grade. The individual assessment of the examiners shall be made in accordance with § 10 (1). The

grade of the Master thesis shall be derived from the arithmetic mean of the individual assessments in accordance with § 10 (3). The result of the Master thesis should be made known to the candidate following the colloquium. Listeners are not permitted to attend the discussions and announcement of the examination results.

(2) 18 credits shall be awarded for passing the Master thesis.

### § 31 Result of the Master's Examination

- (1) The Master's examination has been passed if, in accordance with these Examination Regulations, all module examinations in the Master's programme in Production Engineering and Management and the Master thesis have been passed and evidence provided of successful participation in the practical phase.
- (2) The Master's examination has not been passed if
  - a) an examination required in accordance with these Examination Regulations has been definitively failed and no possibility exists to substitute it with an examination from another subject or
  - b) the Master thesis has definitively been assessed as "fail" or is deemed to have been assessed as "fail".

Where examination attempts have been taken in subjects offered by UNITS in accordance with the Examination Regulations, it is incumbent upon UNITS to determine the definitive fail. The partner university shall inform the competent Examination Committee of HS OWL in writing of the definitive fail. Where examination attempts have been taken in subjects offered by HS OWL in accordance with the Examination Regulations, it is incumbent upon HS OWL to determine the definitive fail, of which the examination bodies of the partner university will be notified in writing.

(3) A decision accompanied by information on rights of appeal shall be issued with regard to a failed Master's examination. An English translation shall be attached. On application, the chair of the Examination Committee shall issue a certificate after the student has left the university which contains the examinations taken and the grades awarded for them, as well as the examinations still required for the Master's examination. It must be clear from the certificate that the candidate has definitively failed the Master's examination. On application, the chair of the Examination Committee shall issue a certificate which contains only the examinations taken and the grades awarded for them.

#### § 32 Certificate, Final Grade, Final ECTS Grade

- (1) Both HS OWL and UNITS shall issue a certificate concerning the passed Master's examination.
- (2) HS OWL shall immediately draw up the certificate in German, preferably within four weeks of the last examination. Reference shall be made to the fact that the de-

gree programme is run jointly with UNITS. The certificate shall contain the grades of all module examinations, the subject and grade of the Master thesis, the final grade of the Master's examination and the locations where the examinations were taken. In each case, the grade shall be stated in words and – in brackets afterwards – in figures to two decimal places; the assessment "pass" shall be entered for ungraded examinations. The practical phase shall be marked accordingly. The number of credits obtained with the examination shall be stated after the name of each examination; this applies accordingly for the practical phase. The total number of credits obtained through these examinations and the practical phase shall be stated. The certificate is signed by the chair of the competent Examination Committee of HS OWL. The certificate shall contain the date on which the last examination was taken.

- (3) The final grade of the Master's examination shall be derived from the arithmetic mean weighted by credits of the grades for the module examinations and the Master thesis in accordance with § 10 (4) and (5). Ungraded examinations are not taken into consideration in the calculation of the final grade.
- (4) In addition, HS OWL shall issue an appendix to the certificate containing a relative final ECTS grade according to the following scale:

Α	the best	10 %
В	the next	25 %
С	the next	30 %
D	the next	25 %
Ε	the next	10 %.

Two decimal places shall be taken into consideration for the final grade and shown accordingly in connection with the final ECTS grade; all other decimal places shall be deleted without rounding.

- (5) The reference level for calculating the relative final ECTS grade comprises graduates from the past six semesters. If this does not comprise a minimum of 60 persons, then as many previous final semesters shall be consulted to achieve a minimum of 60 persons in the calculation; complete final semesters are included each time.
- (6) If this degree programme does not yet have six final semesters and/or less than 60 graduates, then the relative final ECTS grade shall only be shown on request. In this case, graduates of a comparable degree programme or several comparable degree programmes may be used completely or as a supplement or addition to calculate the reference level in accordance with Clause 5. Further details shall be laid down by the Examination Committee; these details shall be recorded. Insofar as the reference level is formed in accordance with this clause, this shall be noted in an explanation.

#### § 33 Diploma Supplement

- (1) Both HS OWL and UNITS shall issue a Diploma Supplement.
- (2) The graduate shall be issued with a Diploma Supplement in German and English and a Transcript of Records by HS OWL along with the Master's examination certificate.
- (3) The Diploma Supplement issued by HS OWL shall contain details of the degree programme, its requirements and content, the grading system and the way in which it was passed; it shall also contain information about the higher education institution and the German system of academic studies.
- (4) The Transcript of Records issued by HS OWL shall particularly provide information about the subjects/modules passed through examination and the credits obtained.

### § 34 Master's Degree Certificate

- (1) Both HS OWL and UNITS shall issue a certificate for the degree conferred by it.
- (2) Before or at the time of the receipt of the certificate, the candidate shall be issued with the Master's degree certificate showing the date of the certificate and details of the degree programme. Reference shall be made to the fact that the degree programme is run jointly with UNITS. The Master's degree certificate is issued in German. The Master's degree certificate shall be signed by the President and the chair of the Examination Committee and sealed using the embossed seal of Hochschule Ostwestfalen-Lippe.

#### § 35 Additional Subjects

- (1) The candidate can take examinations in other subjects that he is not required to take (additional subjects). The result of an examination in these subjects and the number of credits obtained will, on application, be included in the certificate, but will not be taken into account in determining the final grade and total number of credits.
- (2) Examinations in additional subjects (additional examinations) can be taken in all compulsory and elective subjects from other degree programmes at Hochschule Ostwestfalen-Lippe for which the candidate is not enrolled and which have no equivalent in the range of subjects offered in the Master's programme in Production Engineering and Management.
- (3) The admission requirements for additional examinations in accordance with Clause 2 are evidence of participation in courses, proof of academic achievement and passed examinations which, according to the Examination Regulations for the other degree programme, are admission requirements for the examination the candidate aspires to take, insofar as these convey direct basic knowledge for the examination the candidate aspires to take; if it is not possible to provide evidence of examinations passed as required here, comparable examinations shall be proved with regard to the necessary basic knowledge.

- (4) The application for admission to an additional examination in accordance with Clause 2 shall be submitted to the Examination Committee of the other degree programme. The candidate shall present the documents required for admission. The Examination Committee of the other degree programme shall decide on admission in agreement with the Examination Committee for the Master's programme in Production Engineering and Management. The candidate can only be admitted if the existing capacities and possibilities allow it. There is no legal entitlement to admission.
- (5) If the candidate chooses and passes the examination in more than the required number of elective subjects taken from a list of such subjects on the degree programme on which he is enrolled, these are also considered to be additional subjects. The first examinations taken shall be deemed to be examinations in elective subjects unless the candidate has specified otherwise before the first examination attempt or in a permissible manner at a later date. § 14 (2) remains unaffected.
- (6) The Examination Committee for the Master's programme in Production Engineering and Management shall rule on subjects outside of the range of compulsory and elective subjects of degree programmes at Hochschule Ostwestfalen-Lippe in which additional examinations can be taken. Admission is also granted by this Examination Committee.

### IV. Non-Validity of Examinations, Revocation of the Master's Degree, Inspection of the Examination Documents

### § 36 Non-Validity of the Master's Examination, Revocation of the Master's Degree

- (1) If a candidate cheats during an examination and this does not become known until after the certificate has been issued, the Examination Committee may subsequently accordingly correct the grades for those examinations in which the candidate has cheated and declare the Master's examination wholly or partially failed.
- (2) If the conditions for admission to an examination were not fulfilled, without the candidate having intended to cheat about this and this does not become known until after the certificate has been issued, this shortcoming is remedied by passing the examination. If the candidate has wrongly obtained admission by intent, the Examination Committee shall decide on the legal consequences taking account of the Act on Administrative Procedures for the Federal State of North Rhine-Westphalia.
- (3) The person concerned should be given an opportunity to comment before a decision is taken.
- (4) The incorrect examination certificate shall be withdrawn and, if necessary, a new one issued. No decision pursuant to Clause 1 and Clause 2 Sentence 2may be made after a period of five years has elapsed following the issue of the examination certificate.
- (5) If the examination has been declared to have been failed overall, the Master's degree shall be revoked and the Master's degree certificate withdrawn.

(6) Any decision in accordance with Clause 1 and Clause 2 Sentence 2 shall be communicated to the examination bodies of the partner university in writing.

### § 37 Inspection of the Examination Documents

After the result of each examination has been released, the candidate shall, on request, be allowed in due course to inspect the respective examination documents relating to him or her. The chair of the Examination Committee shall determine the location and date of this inspection.

#### V. Final Provisions

### § 38 Entry into Force and Publication

- (1) These Examination Regulations shall enter into force on 1 September 2011.
- (2) These Examination Regulations shall be published in the Verkündungsblatt (Official Journal) of Hochschule Ostwestfalen-Lippe.

These Examination Regulations have been drawn up following a review by the Presidential Board of Hochschule Ostwestfalen-Lippe and on the basis of a decision by the Department of Production and Economics of 18 January 2012.

Lemgo, 25 January 2012

The President of Hochschule Ostwestfalen-Lippe

(Dr. Oliver Herrmann)

### **Course Curriculum Master's programme in Production Engineering and Management**

#### 1st to 3rd semesters

#### Subject Group A 1)

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
-	Cogeneration and Industrial Energy Use 1)	WS	Pordenone	Е	6	9
-	Industrial Plants 1)				7	9
-	Quantitative Methods for Engineering 19 Models and Methods for Logistics Scientific Computation and Applied Statistics	WS	Pordenone	Е	5 5	5 5
	Total				23	28

 Where studies are commenced in winter semester (WS) (October – February) in Pordenone – UNITS ("home university" = UNITS). The specified credits shall be obtained by taking examinations. The full particulars are laid down by UNITS.

#### Subject Group B - Basics 2)

No.	Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
1	7924	Economic Process Evaluation Wood/Furniture	SS	Lemgo	D	4	5
2	7922	Product Development Processes in the Wood Industry	SS	Lemgo	D	4	5
3	7928	Structures and Processes in Logistics	SS	Lemgo	D	4	5
4	7925	Special Products and Manufacturing Processes for Wood	SS	Lemgo	D	4	5
5	7921	Innovation Management in the Furniture Industry	SS	Lemgo	D	4	5
6	7926	Plastics and Plastics Processing	SS	Lemgo	D	4	5
7	7932	Global Production	SS	Lemgo	D	4	5
8	7923	Packaging Engineering and Logistics	SS	Lemgo	D	4	5
9	7927	Process Stabilisation	SS	Lemgo	D	4	5
10	7935	Mechanics of Materials	WS	Lemgo	D	4	5
11	7933	Interlinked Production Systems	WS	Lemgo	D	4	5
12	7936	Laser Technology	WS	Lemgo	D	4	5
13	7937	Organisation	WS	Lemgo	D	4	5
14	7938	Commercial Law	WS	Lemgo	D	4	5
15	7939	International Human Resource Management	WS	Lemgo	Е	4	5
16		subject from Subject Group E not chosen	WS	Lemgo	Е	4	5
17		subject from Subject Group F not chosen	WS	Lemgo	E	4	5
18		subject from Subject Group G not chosen	WS	Lemgo	E	4	5
19		subject from Subject Group C not chosen	WS	Lemgo	E	4	5
		Choose 5 out of 19 / Total				20	30

<sup>2)</sup> Where studies are commenced in winter semester (WS) (September – February) or summer semester (SS) (March – August) in Lemgo – HS OWL ("home university" = HS OWL). The specified credits shall be obtained by taking examinations in five of these subjects. Subjects containing the

same subject matter as the previous degree programme may only be selected with the consent of the competent Examination Committee.

#### **Continuation of Appendix 1**

#### Subject Group C – International Competences 3)

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
7905	Advanced Business English	WS	Lemgo	Е	4	5
7904	International Management Skills	WS	Lemgo	Е	4	5
	Choose 1 out of 2 / Total				4	5

3) Where studies are commenced in winter semester (WS) (September – February) or summer semester (SS) (March – August) in Lemgo – HS OWL ("home university" = HS OWL). The specified credits shall be obtained by taking examinations in one of these subjects. A subject containing the same subject matter as the previous degree programme may only be selected with the consent of the competent Examination Committee.

#### Subject Group D<sup>4)</sup>

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
-	Engineering Planning and Control 4)					
	Product Design and Engineering of Wood Products	SS	Pordenone	Е	5	6
	Production Planning and Control	SS	Pordenone	E	5	6
-	Furniture Technology 4) Spec. Machin. and Facilities for Wood and Furniture Materials / Techn. of the Wood / Furniture Industry	SS SS	Pordenone Pordenone	EE	4 5	6
-	Operations Management 4)	SS	Pordenone	Е	5	6
	Total				24	30

<sup>4)</sup> For all students. The specified credits shall be obtained by taking examinations. The full particulars are laid down by UNITS.

#### Subject Group E – Management and Information Techniques of SME 5)

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
	Management and Information Techniques of SME					
7918	Strategic Management (Supply Chain Strategy)	WS	Lemgo	Е	4	5
7917	IT Systems in Production Management (ERP)	WS	Lemgo	Е	4	5
7916	Information Technologies for Furniture Industry	WS	Lemgo	Е	4	5
	Choose 2 out of 3 / Total				8	10

<sup>5)</sup> For all students. The specified credits shall be obtained by taking examinations in two subjects.

#### Subject Group F - Specialised Wood Processing 6)

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
	Specialised Wood Processing					
7915	Non Destructive Testing of Wood Materials	WS	Lemgo	E	4	5

7914	Advanced Surface Technologies	WS	Lemgo	Е	4	5
7913	Industrial Bonding Technologies	WS	Lemgo	E	4	5
	Choose 2 out of 3 / Total				8	10

6) For all students. The specified credits shall be obtained by taking examinations in two subjects.

#### **Continuation of Appendix 1**

#### Subject Group G – Product and Process Development and Optimization 7)

Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
	Product and Process Development and Optimization					
7912	Rapid Development	WS	Lemgo	Е	4	5
7911	Advanced Production Technologies and Optimization	WS	Lemgo	Е	4	5
7910	Advanced Wood Based Materials	WS	Lemgo	Е	4	5
	Choose 2 out of 3 / Total				8	10

<sup>7)</sup> For all students. The specified credits shall be obtained by taking examinations in two subjects.

#### 4th semester

	Lemgo – HS OWL (March – August or Se	ptember	– February)			
Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its
7902	Seminar International Production Management 8)	SS/ WS	Lemgo	E	2	6
7906	Seminar International Production Management 8a)	SS/ WS	Lemgo	E	2	8
7901	Internship	SS/ WS	Lemgo	D/E		6
	Total					12/14

	Pordenone – UNITS (March – September)						
Mod- ule/Sub ject No.	Module/Subject	Sem.	Location	Lan- guag e	Cred- it Hour s	Cred- its	
-	Free Choice <sup>8) 8a) 9)</sup>	SS	Por- denone	E		8	
-	Internship	SS	Por- denone	Е		6	
	Total					14	

<sup>8)</sup> In accordance with § 23 (2), either subject with subject number 7902 or a subject from the "Free Choice" list shall be taken.

#### Lemgo HS OWL / Pordenone – UNITS

<sup>8</sup>a) In accordance with § 23 (3), either the subject with subject number 7906 or a subject from the "Free Choice" list shall be taken.

<sup>9)</sup> The specified credits shall be obtained by taking examinations. The full particulars are laid down by UNITS.

Master Thesis <sup>10)</sup>	18

10) The Master thesis shall be written in English and shall otherwise comply with the provisions of the respective "home university" (for HS OWL, see: §§ 25 ff)

Recommended course curriculum for the first three semesters when commencing studies in the winter semester at HS OWL ("home university" = HS OWL):

1st semester (WS – HS OWL)	Credits
Choose 5 subjects from Subject Group B 10 - 19	25
Choose 1 subject from Group C	5
Total	30

2nd semester (SS – UNITS)	Credits
Subjects from Group D	30

3rd semester (WS – HS OWL)	Credits
Choose 2 subjects from Subject Group E	10
Choose 2 subjects from Subject Group F	10
Choose 2 subjects from Subject Group G	10
Total	30

Recommended course curriculum for the first three semesters when commencing studies in the summer semester at HS OWL ("home university" = HS OWL):

1st semester (SS – HS OWL)	Credits
Choose 5 subjects from Subject Group B 1 - 9	25

2nd semester (WS – HS OWL)	Credits
Choose 2 subjects from Subject Group E	10
Choose 2 subjects from Subject Group F	10
Choose 2 subjects from Subject Group G	10
Choose 1 subject from Group C	5
Total	35

3rd Semester (SS – UNITS)	Credits
Subjects from Group D	30

### **Continuation of Appendix 1**

Recommended course curriculum for the first three semesters when commencing studies in the winter semester at UNITS ("home university" = UNITS):

1st semester (WS – UNITS)	Credits
Subjects from Subject Group A	28

2nd semester (SS – UNITS)	Credits
Subjects from Subject Group D	30

3rd semester (WS – HS OWL)	Credits
Choose 2 subjects from Subject Group E	10
Choose 2 subjects from Subject Group F	10
Choose 2 subjects from Subject Group G	10
Total	30

### **Grade Conversion Tables**

### **Grade conversion table – module examinations**

UNITS grade	HS OWL grade	HS OWL grade
30	1.00	Very good
29	1.25	Very good
28	1.50	Very good
27	1.75	Good
26	2.00	Good
25	2.25	Good
24	2.50	Good
23	2.75	Satisfactory
22	3.00	Satisfactory
21	3.25	Satisfactory
20	3.50	Satisfactory
19	3.75	Sufficient
18	4.00	Sufficient
17 - 0	5.00	Fail

### **Grade conversion table – final grade**

UNITS grade	HS OWL grade	HS OWL grade
110 and 110 e lode	1.00	Very good
109	1.06	Very good
108	1.13	Very good
107	1.20	Very good
106	1.27	Very good
105	1.34	Very good
104	1.40	Very good
103	1.47	Very good
102	1.54	Good
101	1.61	Good
100	1.68	Good
99	1.75	Good
98	1.81	Good
97	1.88	Good
96	1.95	Good
95	2.02	Good
94	2.09	Good
93	2.15	Good
92	2.22	Good
91	2.29	Good
90	2.36	Good
89	2.43	Good
88	2.50	Good

### **Continuation of Appendix 2**

UNITS grade	HS OWL grade	HS OWL grade
87	2.56	Satisfactory
86	2.63	Satisfactory
85	2.70	Satisfactory
84	2.77	Satisfactory
83	2.84	Satisfactory
82	2.90	Satisfactory
81	2.97	Satisfactory
80	3.04	Satisfactory
79	3.11	Satisfactory
78	3.18	Satisfactory
77	3.25	Satisfactory
76	3.31	Satisfactory
75	3.38	Satisfactory
74	3.45	Satisfactory
73	3.52	Sufficient
72	3.59	Sufficient
71	3.65	Sufficient
70	3.72	Sufficient
69	3.79	Sufficient
68	3.86	Sufficient
67	3.93	Sufficient
66	4.00	Sufficient
< 66	< 4.00	Fail