Examination and Academic Regulations
for the Master’s program in Life Science Economics and Policy
at the Technische Universität München

dated 6 March 2013

Please note: this is a translation of the original version, which is written in German. The German version is the legally binding version of this document.

In accordance with Art. 13 (1) sentence 2 in conjunction with Art. 58 (1) sentence 1, Art. 61 (2) sentence 1 and Art. 43 (5) of the Bayerisches Hochschulgesetz (BayHSchG) [Bavarian Higher Education Act] the Technische Universität München issues the following Examination and Academic Regulations (Fachprüfungs- und Studienordnung, FPSO):

Introductory note on linguistic usage
In accordance with Art. 3 (2) of the German Constitution, women and men have equal rights. Any terms relating to persons and functions mentioned in the following regulations are equally valid for women and men.

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§ 34
Applicability, Academic Titles

(1) These Examination and Academic Regulations for the Master’s program in Life Science Economics and Policy (FPSO) complement the General Academic and Examination Regulations for Bachelor’s and Master’s programs at the Technische Universität München (APSO) as amended. The APSO shall have precedence.

(2) Upon successful completion of the Master’s examination the degree: "Master of Science" ("M.Sc.") is awarded. The academic title may also be used with the name of the university "(TUM)".

§ 35
Commencement of Studies, Standard Duration of Study, ECTS

(1) The Master’s program in Life Science Economics and Policy at the Technische Universität München commences, as a rule, in the winter semester.

(2) The number of classes in: required, required elective, and elective subjects needed to obtain the Master’s degree is 80 credits (68 weekly hours per semester) spread over three semesters plus a maximum of six months for the completion of the Master’s thesis pursuant to § 46. In addition, four weeks (5 credits) of practical experience, and participation in an excursion (5 credits) will be required. The number of coursework units and examinations in the required, required elective, and elective subjects to be completed in the Life Science Economics and Policy Master’s program according to Appendix 1 is a minimum of 120 credits. The standard duration of study for the Master’s program will be a total of four semesters.

§ 36
Eligibility Requirements

(1) Eligibility for the Master’s program in Life Science Economics and Policy is demonstrated by

1. the following degrees:
   a) a qualified Bachelor’s degree in economics with basic knowledge in the natural sciences equivalent to at least 30 credits, or comparable programs obtained from a domestic university in the Life Sciences, or comparable programs in Agricultural Science, Horticultural Science, Environmental and Natural Science with basic knowledge in economics worth 30 credits, or an equivalent achievement; or
   b) an internationally recognized qualified Bachelor’s degree in the programs stated in lit. a) obtained from a foreign university; or
   c) a qualified Diplom, Bachelor’s, or Master’s degree in the programs stated in lit. a) obtained from a domestic Fachhochschule [university of applied sciences]; or
   d) a Diplom, Magister, state examination, or Master’s degree in the programs stated in lit. a) obtained from a domestic university; or
   e) a degree obtained from a foreign institution of higher education which is equivalent to the degrees listed in lit. c) and d); or
   f) a Diplom degree in the programs specified in a) obtained from a domestic Berufsakademie [vocational college] that corresponds to the criteria stipulated in the
KMK-Beschluss [Decision of the Standing Conference of Ministers of Education] of 29 September 1995; or

g) an accredited Bachelor’s or Master’s degree in the programs stated in a) obtained from a domestic Berufsakademie [vocational college];

2. an adequate knowledge of the English language; students whose native language or language of instruction is not English must demonstrate proficiency through an acknowledged language test such as “Test of English as a Foreign Language“ (TOEFL), “International English Language Testing System” (IELTS), or “Cambridge Main Suite of English Examinations”; alternatively adequate language skills may be proven through a good grade in English (corresponding to at least 10 out of 15 points) awarded by a domestic higher education entrance qualification. If, in the undergraduate program, 15 credits were obtained for examinations administered in English language examination modules, adequate proficiency in English is deemed proven.

3. Passing of the Aptitude Test pursuant to Appendix 2.

(2) A degree is considered a qualified degree within the meaning of subsection 1 if such degree requires the successful completion of examinations that are equivalent to the examinations in Bachelors’ programs at the Technische Universität München specified in subsection 1, no. 1, and correspond to the subject-specific requirements of the Master’s program in Life Science Economics and Policy.

(3) The assessment according to subsection 2 will be performed on the basis of the required modules of the Bachelor’s program in Agricultural Science; technology and management orientated business administration. If, in terms of the regulations in paragraph (1)1.(a), with respect to qualified basic knowledge in economics or the natural sciences, only 20 credits have been achieved, a student can fulfill the program’s requirements by choosing elective subjects worth 10 credits in accordance with § 43 (2). If more than 10 credits are required, then according to § 36 (1), admission is not possible.

(4) The comparability of programs, the subject-specific aptitude, as well as the equivalence of degrees acquired from foreign institutions will be decided upon by the examination board in compliance with Art. 63 of the Bayerisches Hochschulgesetz [Bavarian Higher Education Act].

§ 37

Modular Structure, Module Examination, Courses, Fields of Study, Language of Instruction

(1) General provisions concerning modules and courses are set forth in § 6 and § 8 of the Allgemeinen Prüfungs- und Studienordnung (APSO) [examination and study regulations]. For any changes to the stipulated module provisions, § 12 (8) of the APSO shall apply.

(2) The curriculum listing the required, required elective, and elective courses is included in Appendix 1.

(3) The student, together with a mentor assigned by the Study Faculty, must compile an individual semester curriculum amounting to 35 credits, at least 10 credits of which must be chosen from the elective subjects in the natural sciences, and at least a further 10 credits chosen from the elective subjects in the social sciences (see Appendix 1), and 5 credits may be chosen from any elective subjects. Any member of the Center of Life and Food Sciences Weihenstephan who is authorized to administer examinations pursuant to the Hochschulprüferverordnung [act governing examiners at institutions of higher education] may be assigned as a mentor.
The language of instruction in the Master’s program in Life Science Economics and Policy is English. Pursuant to § 4 Abs. 5 Nr. 8 of the Immatrikulations-, Rückmelde-, Beurlaubungs- und Exmatrikulationssatzung [§ 4 (5) no. 8 of the Statutes governing Enrollment, Re-Enrollment, Leave of Absence and Withdrawal] of the Technische Universität München of 30 March 2007, as amended, proof of proficiency in the German language is not required for enrollment.

Optional § 37 a
Internship, Research Project, Excursion, Residence Abroad

1 An internship is required as coursework pursuant to § 45. The duration will be at least four weeks (5 credits), which must be completed by the end of the fourth semester. Successful completion will be confirmed by the companies or government agencies where the internship was completed and certified by internship reports. Proof of successful completion of the internship and its approval by the examination board are prerequisites for being awarded the Master’s degree certificate. Alternatively, a research project lasting four weeks can be done.

2 The internship will always be assigned and supervised by an expert examiner as defined in the APSO (supervisor). Expert examiners are all members of the Center of Life and Food Sciences Weihenstephan professorial faculty.

3 The examination board decides whether or not vocational education or comparable achievement will be recognized as internship.

4 For the award of the Master’s degree certificate, the successful participation in an excursion as prescribed in the course handbook of the Master’s program in Life Science Economics and Policy, is required. Participation in the excursion includes: pre- and post-discussions, and a written report. Successful participation in all activities and requirements relating to the excursion entail 5 credits.

5 A period of residence abroad, for which up to 30 credits will be awarded for subjects chosen pursuant to § 37 (3), at a foreign university, or a foreign institution having a disciplinary connection to the contents of the Master’s program in Life Science Economics and Policy, is permissible. The residence abroad must be completed by the end of the third semester. Successful completion must be confirmed by the university or institution in question and certified by reports, which will be assessed. Proof of successful completion of the residence abroad and its approval by the examination board are prerequisites for admission to prepare the Master’s thesis.

§ 38
Examination Deadlines, Progress Monitoring, Failure to Meet Deadlines

1 Examination deadlines, progress monitoring, and failure to meet deadlines are governed by § 10 of the APSO.

2 At least one of the basic module examinations listed in Appendix 1 must be successfully completed by the end of the second semester. In the event of failure to meet deadlines, § 10 (5) of the APSO shall apply.
§ 39
Examination Board

Pursuant to § 29 of the APSO, the board responsible for all decisions concerning examination matters shall be the Master’s Examination Board of the Studienfakultät für Agrar- und Gartenbauwissenschaften (Department of Agricultural and Horticultural Sciences).

§ 40
Recognition of Periods of Study, Coursework, and Examination Results

The recognition of periods of study, coursework and examination results is governed by the provisions of § 16 of the APSO.

§ 41
Continuous Assessment Procedure

(1) The module examinations will, as a rule, be taken concurrently with the program. Type and duration of module examinations are provided for in Appendix 1. In the event of divergence from those provisions, § 12 (8) of the APSO must be complied with. The assessment of the module examination is governed by § 17 of the APSO.

(2) Where Appendix 1 provides that a module examination is either in written or oral form, the examiner must inform the students in appropriate form, no later than the first day of classes of the type of examination to be held.

(3) Upon request of a student and with the agreement of the examiners, examinations may be taken in the English language for courses taught in the German language.

§ 42
Registration for and Admission to the Master’s Examination

(1) Students who are enrolled in the Master’s program in Life Science Economics and Policy are deemed admitted to the module examinations of the Master’s examination.

(2) Registration requirements for: required (compulsory), required elective, and elective module examinations are stipulated in § 15 (1) of the APSO. The registration requirements for repeat examinations for: failed required and required elective modules, are stipulated in § 15 (2) of the APSO.
§ 43  
Scope of the Master’s Examination

(1) The Master’s examination consists of:

1. the module examinations in the corresponding modules pursuant to subsection (2);
2. the Master’s thesis pursuant to § 46; and
3. the Master’s colloquium pursuant to § 46a.

(2) The module examinations are listed in Appendix 1. Forty five (45) credits in required (compulsory) modules; and a minimum of 35 credits in required elective modules, with the following condition: at least 10 credits from must be chosen from the natural sciences, and at least 10 credits must be chosen from the social sciences, and 5 credits must be chosen general subjects listed in Appendix 1, are required. Pursuant to § 36 (3)(2), should a maximum of 10 credits still be required for the necessary basic knowledge in the fields of either the natural- or social sciences, this requirement can be fulfilled to achieve the study goals of the program by choosing an additional maximum 10 credits in the respective field.

The selection of modules must be in compliance with § 8 (2) of the APSO.

§ 44  
Repeat Examinations, Failed Examinations

(1) The repetition of examinations is governed by § 24 of the APSO.

(2) Failure of examinations is governed by § 23 of the APSO.

§ 45  
Coursework

In addition to the examination results specified in § 43 (1), the successful participation in the Master’s program in Life Science Economics and Policy’s excursion, worth 5 credits, and completion of one of the following – each worth 5 credits - is required: an internship lasting at least one month, or a research project.

Instead of completing the examinations for the elective modules according to § 43 (2)(2), it is also possible to account for academic achievements. According to § 43 (2)(2), the number elective module credits so earned will be accounted for accordingly.

§ 46  
Master’s Thesis

(1) As part of the Master’s examination, each student must write a Master’s thesis pursuant to § 18 of the APSO. The topic for the Master’s thesis may be assigned and supervised by any full-time member or Junior Fellow (within the meaning of Art. 2 (1) BayHSchPG) of the Fakultät Wissenschaftszentrum Weihenstephan der Technische Universität München (Weihenstephan Science Centre of the Technical University of Munich) professorial faculty of the Technische Universität München.

(2) Work on the Master’s thesis should commence after successful completion of all module examinations. The Master’s thesis is deemed completed but not passed insofar as the student, without a valid reason pursuant to § 10 (2), has not submitted the thesis.
The period of time between topic assignment and submission of the completed Master’s thesis must not exceed six months.

The Master’s thesis should be written in the English language.

If the Master’s thesis was not graded with at least “sufficient” (4.0), it may be repeated once with a new topic. Students must renew their application for admission within six weeks from receipt of the grade.

§ 46 a
Master’s Colloquium

1 A student is deemed registered for the Master’s colloquium if he/she has earned a minimum of 90 credits in the Master’s program and has successfully completed the Master’s thesis.

2 The examination should take place no later than two months after the registration date specified in sentence 1.

2 The Master’s colloquium is to be held by the supervisor of the Master’s thesis together with a competent observer.

3 The Master’s colloquium is to be held in the English language.

4 The Master’s colloquium will, as a rule, last 60 minutes. The student has approx. 30 minutes to present his/her Master’s thesis. This will be followed by an oral defense extending from the subject of the Master’s thesis to the broader discipline to which the Master’s thesis belongs.

5 The Master’s colloquium is deemed successfully completed if it is graded with at least “Sufficient” (4.0). If the Master’s colloquium is failed, § 24 (7) of the APSO will apply.

6 Three credits will be awarded for the Master’s colloquium.

§ 47
Passing and Assessment of the Master’s Examination

1 The Master’s examination is deemed passed when all examinations required for the Master’s examination pursuant to § 43 (1) have been passed and a positive credit balance of at least 120 credits has been achieved.

2 The grade for a module will be calculated according to § 17 of the APSO. The overall grade for the Master’s examination will be calculated as the weighted grade average of the modules according to § 43 (1), the Master’s thesis, and the Master’s colloquium. The grade weights of the individual modules correspond to the credits assigned to each module. The overall assessment is expressed by the designation pursuant to § 17 of the APSO.

§ 48
Degree Certificate, Diploma, Diploma Supplement

1 If the Master’s examination was passed, a degree certificate, a diploma, and a diploma supplement including a transcript of records are to be issued in compliance with § 25 (1) and § 26. The date to be entered on the degree certificate is the day when all examination and course work requirements have been fulfilled.
§ 49
Entry into Force

(1) These Examination and Academic Regulations shall enter into force on the 1st of April 2013. They shall apply to all students who commence their studies in the Life Science Economics and Policy Master’s program at the Technische Universität München as of the winter semester.
### Appendix 1: Examination Modules

<table>
<thead>
<tr>
<th>No.</th>
<th>Module name</th>
<th>Type of instruction</th>
<th>Semester</th>
<th>SWS</th>
<th>Credits</th>
<th>Type of examination</th>
<th>Duration of examination</th>
<th>Language of instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agribusiness Governance</td>
<td>1.Sem., W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>Applied Statistics and Econometrics</td>
<td>S</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>120</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>3</td>
<td>Human Resource Management for Agriculture and Related Industries</td>
<td>1.Sem., W</td>
<td>4</td>
<td>5</td>
<td>M (Oral)</td>
<td>m</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>4</td>
<td>International Commodity Markets and Trade Policy</td>
<td>3.Sem., W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>5</td>
<td>International Environmental Policy and Conflict Resolution</td>
<td>2.Sem., W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>60</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>6</td>
<td>Life Science Economics and Policy</td>
<td>1.Sem., W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>7</td>
<td>Mathematics for Economics and Business</td>
<td>1.Sem., W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>8</td>
<td>Production and Risk Management</td>
<td>W</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>9</td>
<td>Value Chain Economics</td>
<td>2.Sem., S</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td></td>
<td>English</td>
</tr>
</tbody>
</table>

1. Required (Compulsory) Modules

The required (compulsory) modules worth **45 Credits** are:

2. Required Elective Modules: from the following course handbook, **5 credits** must be obtained:

<table>
<thead>
<tr>
<th>Module name</th>
<th>Semester</th>
<th>Credits</th>
<th>Type of examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allgemeinbildendes Fach aus dem Fächerkatalog der TUM</td>
<td>1/2/3/4</td>
<td>5</td>
<td>Dependent on the module chosen</td>
</tr>
</tbody>
</table>

**Explanation:**

Sem. = Semester; SWS = Semesterwochenstunden (weekly hours per semester); V = Vorlesung (lecture); Ü = Übung (exercise); P = Praktikum (practicum). In the column Duration of Examination, the duration in minutes is entered for written examinations; „m“ is entered for oral examinations.

- The examination board continuously updates the course catalog of elective modules. Any changes will be communicated on the examination board’s internet pages no later than by the beginning of the semester.
Required Elective Modules: **at least 10 credits are from the natural sciences** and can be chosen from TUM’s subject catalogue in consultation with a mentor. A possible list of subjects from which to choose is tabulated below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Module name</th>
<th>Type of instruction SWS</th>
<th>SWS</th>
<th>Credits</th>
<th>Type of examination</th>
<th>Duration of examination</th>
<th>Language of instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture Technology Systems</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>Aquatic Ecology and Conservation</td>
<td>2 - 2 - 0 - 0</td>
<td>2</td>
<td>3</td>
<td>Written</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>3</td>
<td>Beverage Engineering</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>4</td>
<td>Energy Conservation and Alternative Energy Resources</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>5</td>
<td>Fisheries Management</td>
<td>2 - 2 - 0 - 0</td>
<td>2</td>
<td>2</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>6</td>
<td>Functional Food</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>7</td>
<td>Host – Parasite Interaction</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>8</td>
<td>Land Use Systems from a Global Perspective</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>9</td>
<td>Material Flow Management and Application</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>10</td>
<td>Modeling, Sensing and Control in Life Science Applications</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
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<tr>
<td>11</td>
<td>Plant Biotechnology</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>12</td>
<td>Plant Breeding and Seed Production</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>13</td>
<td>Quality of Food Crops</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>14</td>
<td>Transgenic Livestock in Agriculture and Biomedicine</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
</tbody>
</table>

Explanation:
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- The examination board continuously updates the course catalog of elective modules. Any changes will be communicated on the examination board’s internet pages no later than by the beginning of the semester.
Required Elective Modules continued: **at least 10 credits are from the social sciences** and can be chosen from TUM’s subject catalogue in consultation with a mentor. A possible list of subjects from which to choose is tabulated below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Module name</th>
<th>Type of instruction</th>
<th>Semester</th>
<th>SWS</th>
<th>Credits</th>
<th>Type of examination</th>
<th>Duration of examination</th>
<th>Language of instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Advanced Environmental and Natural Resource Economics</td>
<td>2 - 2 - 0 - 0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>2</td>
<td>Consumer Economics and Policy</td>
<td>2 - 2 - 0 - 0</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>Written</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>3</td>
<td>Consumer Behaviour</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>4</td>
<td>Development Economics</td>
<td>2 - 2 - 0 - 0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>5</td>
<td>Environmental and Natural Resource Economics</td>
<td>2 - 2 - 0 - 0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Written</td>
<td>90</td>
<td>English</td>
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<td>6</td>
<td>Food Economics</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>7</td>
<td>Organizational Behavior, Theory, and Development</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>8</td>
<td>Network analysis and management</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>9</td>
<td>Research Project International Horticultural Science: Economics and Management</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>10</td>
<td>Regulatory Economics and Policy</td>
<td>2 - 2 - 0 - 0</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
<tr>
<td>11</td>
<td>Sustainability Marketing and Sustainable Consumption</td>
<td>2 - 2 - 0 - 0</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>Written</td>
<td>90</td>
<td>English</td>
</tr>
</tbody>
</table>

3. Additional credits

<table>
<thead>
<tr>
<th>Module name</th>
<th>Semester</th>
<th>Credits</th>
<th>Type of examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Excursion</td>
<td>2</td>
<td>5</td>
<td>Written report</td>
</tr>
<tr>
<td>2 Internship / Research Project</td>
<td>2/3/4</td>
<td>5</td>
<td>Written report</td>
</tr>
</tbody>
</table>

Explanation:
Sem. = Semester; SWS = Semesterwochenstunden (weekly hours per semester); V = Vorlesung (lecture); Ü = Übung (exercise); P = Praktikum (practicum). In the column Duration of Examination, the duration in minutes is entered for written examinations; „m“ is entered for oral examinations.

- The examination board continuously updates the course catalog of elective modules. Any changes will be communicated on the examination board’s internet pages no later than by the beginning of the semester.
APPENDIX 2: Aptitude Assessment

Aptitude Assessment for the Master’s program in Life Science Economics and Policy at the Technische Universität München

1. Purpose of the Assessment

1. Eligibility for the Master’s program in Life Science Economics and Policy, in addition to the requirements pursuant to § 36 (1) numbers 1 and 2, requires proof of aptitude pursuant to § 36 (1) no. 3 in accordance with the following provisions. 2 The special qualifications and skills of the candidates should correspond to the Life Science Economics and Policy profession. Individual aptitude parameters are:

1.1 Ability to conduct research work and/or basic research and methodological work. Prior knowledge from undergraduate studies in economics, and the natural and applied sciences.

1.2 An active interest in questions about economics and policy concerning the life sciences.

1.3 Excellent communication skills, especially the ability to present arguments convincingly about economics and policy concerning the life sciences.

2. Aptitude Assessment Process

2.1 The aptitude test will be held annually by the Department of Agricultural and Horticultural Sciences.

2.2 Applications for admission to the aptitude test including the documents set out in 2.3.1 through 2.3.5 must be filed online by 31 May for the winter semester to the Technische Universität München (absolute deadline). Degree certificate and diploma must be filed no later than five (5) weeks after the beginning of lectures. Otherwise, pursuant to § 36 participation in this degree program is not possible.

2.3 The application must include:

2.3.1 proof of degree obtained in accordance with § 36; if proof cannot be presented at the time of filing the application, a complete transcript of records of 140 credits must be enclosed;

2.3.2 curriculum vitae in tabular form;

2.3.3 a written statement (no more than 2 DIN A4 pages) of the reasons for choosing the Master’s program at the Technische Universität München in which the candidate explains those specific abilities and interests that make him/her particularly qualified for the Life Science Economics and Policy Master’s program at the Technische Universität München; a candidate’s exceptional motivation and commitment is to be demonstrated by details on program-related vocational training, practicums, stays abroad, or program-related further education beyond the attendance and course requirements of the Bachelor’s program, if necessary by appropriate documentation;

2.3.4 a declaration that both the statement of the reasons for choosing the program and the essay are the candidate’s own work, and that the candidate has clearly identified any ideas taken from outside sources.

3. Aptitude Assessment Committee

3.1 The aptitude test is administered by a committee that, as a rule, consists of the dean for academic affairs in charge of the Life Science Economics and Policy Master’s program, at least two members of the professorial faculty, and at least one research associate (wissenschaftlicher Mitarbeiter). At least half of the committee members must be members of the professorial faculty. A representative of the student body will be a part of the committee in an advisory capacity (exception: continuing education programs).

3.2 The members of the committee are appointed by the faculty council (Fakultätsrat) in consultation with the dean for academic affairs. At least one member of the professorial faculty is appointed as deputy member of the committee. As a rule, the committee is chaired by the
4. Admission to the Aptitude Assessment Process

4.1 Admission to the aptitude assessment process requires that all documentation specified in no. 2.3 has been submitted in a timely and complete fashion.

4.2 Applicants who have fulfilled the requirements will be tested according to no. 5.

4.3 Applicants who are not admitted will receive a notification specifying the reasons therefor, and providing information on legal remedies.

5. The Aptitude Assessment Process

5.1 First stage of the aptitude assessment process.

5.1.1 The committee will assess, on the basis of the written application documents required under no. 2.3, whether or not an applicant is suitable for a program pursuant to no. 1 (First stage of the aptitude assessment process). It will encompass the fundamental subject groups of the Bachelor programs in the natural sciences, and for undergraduates in the agricultural and forestry sciences at the Technische Universität München, in the following list.

The following criteria will be applied to the evaluation:

1. Academic qualification

   1The curricular analysis is not conducted in the form of a schematic comparison of the modules, but rather on the basis of competencies. 2It will encompass the fundamental subject groups of the Bachelor programs in the natural sciences, and for undergraduates in the agricultural and forestry sciences at the Technische Universität München.

   Subject groups for Bachelor of Natural Science:

   Fundamentals of the natural sciences
   (Mathematics, physics, chemistry, physical chemistry, biology)

   Subject groups for Bachelor of Social Sciences:

   Fundamentals of the social sciences
   (Business management, economics)

   Subject groups for Bachelor of Agricultural- and Forestry Science

   Fundamentals of agricultural science
   (Fundamentals of forestry science, fundamentals of ecology)

3Where a candidate's competencies are at least equivalent to those listed above, he/she will be awarded a maximum of 60 points. 4Missing competencies will be deducted in accordance with the credits of the corresponding modules of the equivalent Bachelor's program at the Technische Universität München.

   Outstanding competencies will be deducted in accordance with the credits of the modules of the corresponding Bachelor’s program at the Technische Universität München.

2. Final grade

   1For each tenth of a point that the grade of the Bachelor's degree equivalent to 140 credits is better than 3, the applicant will be awarded one point. 2The maximum number of points achievable is 20. 3There will be no negative points. 4Where a degree
was obtained outside of Germany, the grade will be converted according to what is referred to as „Bavarian formula“ \([\text{bayerische Formel},\text{pursuant to the resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) of 15 March 1991}].

5If the applicant, at the time he or she files the application, submits a final degree certificate showing more than 140 credits, the assessment will be made on the basis of the modules that were awarded the best grades, up to 140 credits. 6The applicant must list them in the application, and confirm in writing the accuracy of the information presented.

7The grade average is calculated from the graded module examinations up to 140 credits. 8The overall grade average will be calculated as the weighted grade average of the modules. 9The grade weights of the individual modules correspond to the credits assigned to each module.

3. Letter of motivation
1The applicant’s written statement of purpose will be evaluated by two committee members and graded on a scale of 0 to 20 points. 2The letter of motivation will be assessed using the following criteria:

1. The grammatically correct use of the English language in the written form according to the rules of the language.
2. Factual arguments and style of writing.
3. Expression of the relationship between personal interests and the program’s contents.
4. Suitability for and motivation to do the program supported by well-founded arguments and examples.
5. Ability to orally express key points and present arguments in an appropriate way.

3The committee members independently assess each of the five (5) criteria, which are weighted equally. 4The total number of points will be calculated as the arithmetic mean of the individual assessments, rounded up to the nearest whole number.

5.1.3 1In those cases where it was determined that only some subject-specific requirements from undergraduate studies are missing, the committee may make admission subject to the successful completion of Fundamentals Exams from the Bachelor programs at the Technische Universität München amounting to a maximum of 10 credits. 2These Fundamentals Exams must be taken in the first year of study. 3Failed Fundamentals Exams may be repeated only once and at the next examination date. 4The examination board may make the admission to individual module examinations dependent on the successful completion of the Fundamentals Exam.

5.1.4 1Unsuitable applicants with an overall grade of fewer than 70 points will receive a rejection notice, signed by the TUM Board of Management, specifying the reasons for rejection and providing information on legal remedies. 2Signatory power may be delegated to the chairperson of the Committee.

5.2 Second stage of the aptitude assessment process

5.2.1 1In the second stage of the aptitude assessment process, the applicant’s qualification at undergraduate level and the result of the assessment interview will be evaluated. 2Interview appointments will be announced at least one (1) week in advance. 3Time slots for interviews must be scheduled before expiration of the application deadline. 4The interview appointment must be kept by the applicant. 5If the applicant is unable to attend an aptitude
assessment interview due to reasons beyond his or her control, a later appointment may be scheduled upon a student’s well-grounded request, but no later than two (2) weeks before the beginning of classes.

5.2.2 ¹The aptitude assessment interview is to be held individually for each applicant. ²The interview lasts at least 20 but not more than 30 minutes for each applicant. ³The interview will focus on the following topics (corresponding to the aptitude parameters under 1):

1. Motivation for the Master’s program in Life Science Economics and Policy.
2. Scientific ability: methodical and principled approach to work.
3. Level of undergraduate knowledge from the social- and natural and applied sciences.

The above topics may cover the documentation submitted pursuant to 2.3. Any subject-specific academic knowledge that is to be taught in the Master’s program in Life Science Economics and Policy will not affect the decision. With the applicant’s approval, a representative of the student body may sit in on the interview.

5.2.3 ¹The aptitude assessment interview will be conducted by at least two (2) members of the committee. ²The committee members will grade each of the four topics independently according to:

a) Competence in the English language
b) Exceptional motivation and commitment
c) Level of interest in the topic of Life Science Economics and Policy/ aptitude in the fields of natural-, engineering-, economic- or agricultural-/forestry sciences

Whereby the following criterion are considered:

a) Oral competence in the English language (0 to 10 points, a max. of 2 points per criterion)
   - Clear, fluent, and appropriate use of style
   - Precise expression of thoughts and ideas; capable of providing comprehensive answers in conversation
   - Provide technically correct and understandable answers to questions about previous undergraduate studies
   - Able to convincingly back-up statements using appropriate examples
   - Effortlessly understand questions of a scientific nature concerning own competencies and expectations, and when necessary, pose questions for purposes of clarification

b) Interest in the topic of Life Science Economics and Policy/ aptitude in the fields of natural-, engineering-, economic- or agricultural-/forestry sciences (0 to 20 points, a max. of 4 points per criterion)
   - Contextually knows the current political, economic and legal developments in the life sciences
   - Capable of naming topics and issues relating to the contents of this study program and capable of relating these to his/her undergraduate studies or other previous studies.
   - Has attended lectures and courses in the following fields: natural-, engineering-, economic- or agricultural-/forestry sciences.
   - Actively involved in activities outside of her/his studies in research groups, and for example in student committees.
• Demonstrates having executed practical tasks in a given vocational field, for example from vocational training, work experience, practical/s during undergraduate studies, additional voluntary practical work, or a Bachelor’s dissertation based on work done in a firm.
• Involved with interdisciplinary issues during undergraduate studies.

c) Commitment and motivation (0 to 10 points, a max. of 2 points per criterion)
• Expresses interest in scientific research by raising questions concerning the various fields within Life Science Economics and Policy
• Reflection about aptitudes and competencies, and how these are linked to the goals of the study program
• Reflection about life-/career goals, and how to achieve these
• Prepared to independently participate in contact hours and compulsory events (cf. outstanding commitment / additional qualifications during undergraduate study)
• General motivation for the Master’s qualification (career/scientific)

3 Each member will grade the result of the interview on a scale from 0 to 40, with 0 and 40 being the worst and best possible result, respectively. 4 The points total will be calculated as the arithmetic mean of the individual points. 5 The result will be rounded up to the nearest full point.

5.2.4 1 The applicant’s points total in the second stage will be calculated as the sum of all points obtained under 5.2.3 and the points under 5.1.1.1 (academic qualification) and 5.1.1.2 (grade). 2 Applicants with 100 or more points will be deemed suitable.

5.2.5 1 The applicant will be notified of the result of the aptitude test determined by the committee in writing - where applicable, subject to the requirements determined in stage 1, number 5.1.3. 2 The notice must be signed by the TUM Board of Management. 3 Signatory power may be delegated. 4 A rejection notice must specify the reasons for the rejection and provide information on legal remedies.

5.2.6 Admission to the Master’s program in Life Science Economics and Policy shall apply to all subsequent applications for this program.

6. Record
1 The aptitude assessment process must be documented, including the date, duration and location of the assessment, the names of the committee members, the applicant’s name, and the decision of the members of the committee, as well as the complete results. 2 This record must contain the essential reasons for the decision and the topics discussed at the interview held with the applicant; these reasons and topics may be recorded in note form.

7. Repetition
Applicants who have failed the aptitude test for the Master’s program in Life Science Economics and Policy may register for one repetition of the Aptitude Assessment Test.