Carrying out a doctoral degree at the LMU’s Medical Faculty – which degree, what to be aware of and what to do

*Guidelines for future and current doctoral candidates*
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1. Doctoral degrees at the Medical Faculty

The LMU’s Medical Faculty currently offers 5 different doctoral degrees

(1) Doctoral degree in human medicine (Dr. med.)
(2) Doctoral degree in dental medicine (Dr. med. dent.)
(3) Doctoral degree in human biology (Dr. rer. biol. hum.)
(4) Doctoral degree in the life sciences (Dr. rer. nat.)
(5) Structured doctoral degree in medical research (Ph.D.)

In order to determine which one(s) you are eligible for, you need to ask yourself two questions:

(1) Do I want to carry out a traditional or a structured doctoral degree?
(2) What is my qualifying degree?

As you can see, doctoral candidates with a medical degree can opt for either a traditional Dr. med. (dent.) or a structured Ph.D. in Medical Research. Doctoral candidates with a degree in the life sciences can choose between a traditional Dr. rer. biol. hum. or Dr. rer. nat. or, alternatively also carry out a structured Ph.D. in Medical Research.

But what does each doctoral degree entail, what are the rules and regulations, what do you need to be aware of? Do you qualify for a doctoral degree? Do you need to apply for this?

For a complete “at-a-glance” overview of the requirements for each doctoral degree, please see the degree portfolio in the attachments.
2. Eligibility check

If you have a qualifying degree from abroad, you need to make sure that you are allowed to carry out a doctoral research project at the LMU. Please hand in all your qualifying degree documents (either in person or via email) to the Doctoral Office. These include:

- All certificates (Bachelor, Master, Diploma...)
- All transcripts of above mentioned certificates
- Your CV

The Doctoral Office will check your documents for eligibility and let you know as soon as possible, whether you can carry out your doctoral research project here or not. Once you have received a positive answer, you need to work on finding a project and a supervisor (if you have not already done so).

3. “Promotionsstudium”

At the LMU, you are able to enrol as a doctoral candidate, giving you access to the usual student benefits. In order to enrol, you need to submit a letter of acceptance (Promotionsberechtigung) from the Doctoral Office (Promotionsbüro), stating that you are eligible to carry out a doctoral degree at the Medical Faculty.

3.1. Dr. med. (dent.) and Dr. rer. biol. hum.

Candidates with a German qualifying degree need to submit:

- A copy of the qualifying degree
- Doctoral supervision agreement (original), signed by the candidate and the supervisor

Candidates with a foreign qualifying degree need to submit:

- A CV
- Copies of all foreign degrees and their respective transcripts
- Doctoral supervision agreement

Before the Doctoral Office can issue a letter of acceptance, all foreign documents need to be checked for eligibility (see Chapter 2). This may take a few days.

3.2. Dr. rer. nat.

Candidates aiming for a **doctoral degree in the life sciences** will only be issued a letter of acceptance after they have applied for acceptance as a doctoral candidate!
3.3. Ph.D. in Medical Research

Ph.D. candidates do not have a choice whether they enrol at the LMU or not. All Ph.D. candidates are required to enrol, once they have been successfully applied and been accepted into the Ph.D. program. You will be issued a letter of acceptance from the MMRS specifically for the Ph.D.

4. Cumulative dissertations

If you are planning on submitting a cumulative dissertation, there are some things that you need to be aware of when doing so.

A cumulative dissertation consists of at least two peer-reviewed articles that have either been published or have been accepted for publication. Articles that have only been submitted are not accepted as part of a cumulative dissertation. Further, the selected journals must have a subject-related impact factor within the top 80% of journals published in the research area. As doctoral candidate, you must be first or sole author of at least one of the articles.

The following article types can only be used under certain circumstances and are subject to a by-case decision by the Doctoral Committee.

- Short report – if it corresponds to a publication on original work in form and content
- Letter – if it is published in a journal with a double-digit impact factor and the data presented is equivalent to that of original work
- Methodological publications
- Meta-Analysis – a maximum of one meta-analysis can be submitted, meaning the other publication must be based on original work

The following article types may not be submitted as part of a cumulative thesis:

- Review articles
- Case studies

Articles submitted as part of a cumulative thesis **may not be used** for other cumulative theses (ongoing or completed) of the author or co-authors.

A print-out of the electronic acceptance confirmation is sufficient proof for acceptance of the article. If the article is already published (including online), the complete literature reference must be enclosed (i.e. a copy from PubMed).

For articles with several co-authors, each co-author must state his/her contribution (scope and content) to the article. This statement needs to be signed by all co-authors and be submitted separately. All co-authors must also declare that they are aware of the third paragraph in this section (use of publications for other cumulative theses).

These regulations are valid for all cumulative dissertations across all available doctoral degrees at the Medical Faculty.
3.1. Dr. med. (dent.), Dr. rer. biol. hum. and Dr. rer. nat.

Dissertations leading to doctoral degrees in human or dental medicine, human biology or the life sciences, must also contain:

- An introduction (5 – 10 pages), explaining the objective of the thesis and how the individual articles relate to one another, as well as showing the contribution of the candidate to each article. It can be written in German or English
- A summary in German and English

3.2. Ph.D. in Medical Research

Dissertations leading to a Ph.D. in Medical Research must also contain an introductory summary explaining the objective of the thesis and how the individual articles relate to one another, as well as showing the contribution of the candidate to each article.
5. Doctoral degree in human or dental medicine (Dr. med. (dent.))

Doctoral candidates with a qualifying degree in human or dental medicine are eligible for a Dr. med. (dent.). There is no application procedure, but you do need to make sure that your qualifying degree enables you to carry out a doctoral research project at the LMU.

5.1. Application and pre-doctoral examination

There is no application procedure and no pre-doctoral examination for this doctoral degree.

5.2. Supervision

Supervision of the doctoral project can be carried out by a habilitated supervisor. Once you have your project and a supervisor, you need to register your project with the Doctoral Office and final acceptance as a doctoral candidate at the faculty occurs upon mutual signing of the Doctoral Supervision Agreement.

5.3. Duration of the doctoral research project

There is no specified duration for this doctoral degree.

5.4. Curriculum

There is no intended curriculum for this doctoral degree.

5.5. Thesis

5.5.1. General information

The submitted thesis (regardless of whether it is submitted as a monograph or a cumulative dissertation) must include the following details:

- Table of contents
- Summary
- References
- Curriculum vitae
- Title page, showing at which institute/clinic the thesis was carried out and which doctoral degree (Dr. med., Dr. med. dent.) the candidate is aiming for
As a rule, the thesis should be written in German. If it is in English, the required summary must be written in both German and English.

5.5.2. Cumulative thesis

Instead of submitting a monograph, a cumulative thesis may also be submitted (see Chapter 4).

5.6. Admission to the final doctoral exam

Once you have completed the work on your doctoral research project and finished your thesis, you can submit the latter with the following documents:

(1) Application Form
The application form “Admission as candidate” must be filled out completely and signed personally.

(2) Thesis (2 copies)
The submitted thesis (DIN A4) must be ready for press, typewritten, paginated and bound (not in a spring binder or spiral bind). The title page and its reverse side must adhere to the sample given (see §8 Paragraph 1 Sentence 2).

Instead of a typewritten thesis, you can also submit published work, which you have signed as sole author.

(3) Electronic version of the thesis (1 copy, PDF format)
An electronic version of the thesis in PDF-format (max. 5MB!) must be handed in with the bound copies.

(4) Affidavit
The affidavit (Eidesstattliche Versicherung) must be included in the bound version of the thesis and signed personally by the doctoral candidate.

(5) Confirmation of congruency
A signed confirmation that the bound version is in accordance with the electronic version (PDF) of the thesis.

(6) Confirmation of co-authors
This is only applicable when handing in a cumulative dissertation. All co-authors must describe their contribution (content and volume) to the submitted publications. Further, by signing the confirmation, the co-authors approve the submission and confirm that the submitted scientific article is not part of a current or completed dissertation.
(7) **Expert evaluation (Votum informativum)**
Your supervisor's expert evaluation is to be submitted in a sealed envelope.

(8) **Qualifying degree**
A certified copy of the successfully completed degree in human or dental medicine at a university within the area of application of the German Constitution. Copies which have not been certified will not be accepted. An official verification is not possible at the Doctoral Office.

Upon application, those candidates who did not complete their degree in human or dental medicine within the area of application of the German Constitution must provide proof that their degree is equivalent to the German degree.

(9) **Proof of enrolment**
Proof of having been enrolled in human or dental medicine for 2 semesters at the LMU Munich (certificate of matriculation) or a justified request for exemption from this requirement, with evidence of having studied human or dental medicine at a different university.

(10) **Certificate of good conduct (Führungszeugnis)**
This cannot be older than 8 weeks when submitted the application. It is not required, if:

- 3 months or less have passed since matriculation (certificate of matriculation), or
- you are employed in public or civil service (confirmation by employer).

(11) **German proficiency**
Confirmation that you are proficient in the German language (written and spoken), if German is not your mother tongue. A confirmation by your supervisor is sufficient.

(12) **Doctoral Supervision Agreement**
You must submit your original copy of the doctoral supervision agreement (Betreuungsvereinbarung), as your acceptance as a doctoral candidate is validated by a habilitated member of the Medical Faculty in this written agreement on the topic of your thesis.

(13) **External thesis (approval of external institution)**
If your work was conducted at an institution not belonging to the Medical Faculty, you must submit the written approval of this institution's head that the thesis may be submitted. Furthermore, the written acceptance of you as a doctoral candidate upon determination of the thesis' subject area must be countersigned by a faculty member (professor or teaching staff eligible as authorised examiners by the Hochschulprüferverordnung). In this case, the submitted thesis is represented by this faculty member toward the faculty.

(14) **Münchner Universitätsgesellschaft**
Please submit this form with your application.
(15) External studies
Please submit the respective form.

(16) Ethical clearance
Before carrying out studies on human subjects, the question of ethical and legal innocuousness needs to be clarified, potentially including the Ethical Committee. In case of unclarity, always contact the Ethical Committee. **Please note:** The Ethical Committee does not issue clearances retrospectively! This may mean that in certain circumstances, the dissertation will not be accepted for submission.

5.7. Further procedure

5.7.1. Assessment of the submitted thesis

Once you have submitted the application for admission to the final doctoral examination with all required documents, the Doctoral Committee will appoint the required experts and pass the thesis onto them.

5.7.2. Oral defence

Upon completion of the thesis assessment, the doctoral procedure is continued with an oral defence. Time and place of the oral defence are determined by the Doctoral Committee and you will be notified at least 7 days prior to the date by the chairperson of the Doctoral Committee. The oral defence consists of an unassisted talk (no powerpoint presentations, hand-outs, etc.) on the subject area of the thesis, which is followed by a question period (§12, Examination Regulations). You may be grouped together (§12, Examination Regulations).

5.8. Completion of the procedure

Upon completion of your oral defence, you will receive a copy of your thesis as well as an information sheet regarding the further procedure. Doctoral theses which are no longer needed by the Doctoral Office will be destroyed, unless an objection is filed.

**Within a period of 6 months after the oral defence, you must hand in the following:**

25 bound copies of the thesis - statutory copies (format DIN A5), of which one copy has been signed by your supervisor - must be handed in to the University Library (Dissertationsstelle). Title of the thesis and your name must be on the cover of the statutory copies.

Electronic versions of theses can also be submitted. The number of statutory copies is then reduced to six bound copies. File format and data medium are determined by the University Library. Your curriculum vitae does not need to be included in the bound or electronic versions of the statutory copies.
Of work that has been published in a scientific journal or in a scientific series, with a minimum circulation of 150 copies - insofar as they have been accepted as your thesis - you must hand in 6 statutory copies to the University Library. In this case, the acceptance of the thesis must be endorsed on the back of the reprints' title page.

5.9. Doctor's certificate

Your doctor's certificate is only issued upon submission of the statutory copies (including the copy signed by the supervisor) and be received at the Doctoral Office the earliest 4 weeks upon delivery of the statutory copies. Upon request, the certificate can be handed out by your supervisor. You will also receive a leaflet with the certificate, giving information on how to go about governmental administrative procedures.

5.10. Doctor's degree

The use of the title "Dr. med." or "Dr. med. dent." is only authorised upon receiving your doctor's certificate.
6. Doctoral degree in human biology (Dr. rer. biol. hum.)

The doctoral degree in human biology is designed for doctoral candidates, who would like to carry out a doctoral project at the Medical Faculty, but do not have a qualifying degree in human or dental medicine. In order to qualify for this degree, all future candidates must absolve a pre-doctoral examination, before they can be admitted to the doctoral examination.

6.1. Application

There is no application procedure for this doctoral degree. You do, however, need to absolve a pre-doctoral exam.

6.2. Pre-doctoral exam

For every doctoral procedure leading to a doctoral degree in human biology, candidates need to complete a pre-doctoral examination. During this exam, the candidate needs to demonstrate his/her relationship to medicine (§ 13 Paragraph 1).

6.2.1. Admission requirements

(1) Qualifying degree
Admission criteria are that the applicant can show a diploma or a diploma equivalent degree (i.e. Master's) based on studies carried out at a university within the area of application of the German constitution

- or has a certificate of having passed the veterinary examination, the first state legal examination, the first state examination for food chemists or the pharmaceutical examination (§ 2, paragraph 1, number 12)

- or has a diploma or a Master's degree in a relevant subject from a technical college with a final grade of „very good“ = 1.5 (§ 2, paragraph 1, number 15).

Candidates who did not earn their diploma, Master’s degree or carry out the state examination in the area of application of the German constitution, must additionally prove that they have passed equivalent examinations (§ 2, paragraph 2). The doctoral committee decides whether this examination is equivalent to the respective degree obtained within the area of application of the German constitution (§ 2 paragraph 2).

(2) Scientific work environment
Furthermore, the candidate must provide confirmation of having worked at a scientific or clinical institution at the Medical Faculty for a 2-year period, under supervision of a habilitated member (§ 2, paragraph 1, number 13). When applying for admission to the pre-doctoral examination, the candidate must already have started working at the institution. When applying
for admission to the final doctoral examination – after successful completion of the pre-doctoral examination – the 2-year period of working at an institution of the Medical Faculty must be completed.

Teaching hospitals do not belong to the scientific or clinical institutions of the Medical Faculty.

(3) Minimum required grade
The Doctoral Committee checks if the candidate meets the minimum required grade.

6.2.2. Application procedure for the pre-doctoral examination

The application for admission to the pre-doctoral examination must include the following documents:

- Curriculum vitae in tabular form
- A certified copy of your degree (§ 2, paragraph 1, number 12 and § 2 Paragraph 14)
- An official translation of the degree, in case the degree was obtained abroad (§ 2, paragraph 2).
- Proof of certain minimum grade (see 6.2.1.)
- Confirmation of commencement/end of the required 2-year working period (§ 2, paragraph 1, number 13)

6.2.3. Further procedure for the pre-doctoral exam

(1) Appointment of main and co-examiners
The doctoral committee appoints the main examiner and two co-examiners (§ 13, paragraph 1).

(2) Examination / Examination topics
The pre-doctoral examination takes place as before a panel of examiners. The examiners will inform the candidate on the topics of the examination at least 8 weeks before the examination. (§ 13, paragraph 2).

Concerning graduates from technical colleges with a diploma, the subjects chosen by the applicant (§ 13, paragraph 5) as well as the occupation according to § 2, paragraph 1, number 13, should be considered when determining the topics of the predoctoral examination (§ 13, paragraph 3).

When invited to the examination, the candidate is informed that he/she can inquire about the topics the latest 8 weeks before commencement of the examination. The three examiners decide on whether the candidate can be admitted to the doctoral procedure immediately after the pre-doctoral examination (§ 13 paragraph 3).
6.2. Supervision

Supervision of the doctoral project can be carried out by a habilitated supervisor. Once you have your project and a supervisor, you need to register your project with the Doctoral Office and final acceptance as a doctoral candidate at the faculty occurs upon mutual signing of the Doctoral Supervision Agreement.

6.3. Duration

The duration of the doctoral project is a minimum of 2 years – you must prove that you have spent this minimum amount of time on your doctoral project by submitting confirmation from your supervisor.

6.4. Curriculum

There is no intended curriculum for this doctoral degree.

6.5. Thesis

6.5.1. General information

The submitted thesis (regardless of whether it is submitted as a monograph or a cumulative dissertation) must include the following details:

- Table of contents
- Summary
- References
- Curriculum vitae
- Title page, showing at which institute/clinic the thesis was carried out and which doctoral degree (Dr. med., Dr. med. dent.) the candidate is aiming for

As a rule, the thesis should be written in German. If it is in English, the required summary must be written in both German and English.

6.5.2. Cumulative thesis

Instead of submitting a monograph, a cumulative thesis may also be submitted (see Chapter 4).
6.6. Admission to the final doctoral exam

After successfully completing the pre-doctoral examination and upon completion of further requirements according to § 2, paragraph 1, numbers 12-16, the application for admission to the doctoral examination for a doctoral degree in human biology can be submitted with the following documents:

(1) **Application form**

(2) **Thesis (2 copies)**
The submitted thesis (DIN A4) must be ready for press, typewritten, paginated and bound (not in a spring binder or spiral bind). The title page and its reverse side must adhere to the sample given (§ 8, paragraph 1).

Instead of a typewritten thesis, you can also submit published work, which you have signed as sole author. Before readying the work for press, the Doctoral Committee must approve and the approval must be submitted with this application.

(3) **Electronic version of the thesis (1-fold, PDF-format)**
An electronic version of the thesis in PDF-format (max. 5MB!) must be handed in with the bound copies.

(4) **Affidavit**
The affidavit must be included in the bound version of the thesis and signed personally by the doctoral candidate.

(5) **Confirmation of congruency**
A signed confirmation that the bound version is in accordance with the electronic version (PDF-format) of the thesis.

(6) **Confirmation co-authors (Form: “Cumulative Dissertation”)**
Only applicable when handing in a cumulative dissertation.

(7) **Expert evaluation (Votum informativum)**
The supervisor’s expert evaluation in a sealed envelope.

(8) **Confirmation on pre-doctoral examination**
Confirmation of having successfully completed the predoctoral examination.
(9) **Confirmation of 2-year duration**
Confirmation of having worked at a scientific or clinical institution of the Medical Faculty under the supervision of a habilitated member.

(10) **Certificate of good conduct (Führungszeugnis)**
Certificate of good conduct, which must not be older than 8 weeks when submitting the application. This is not required, if:

- 3 months or less have passed since exmatriculation, or
- the candidate is employed in public or civil service (confirmation by employer)

(11) **German proficiency**
Confirmation that the applicant – if German is not his/her mother tongue – is proficient in the German language, both written and spoken. A confirmation from the supervisor is sufficient.

(12) **Original doctoral supervision agreement**
The acceptance of the doctoral candidate is validated by a habilitated member of the Medical Faculty in a written agreement on the topic of the thesis.

(13) **Form „Münchener Universitätsgesellschaft“**
Please submit this form with your application.

(14) **External studies**
Please submit the respective form.

(15) **Ethical clearance**
Before carrying out studies on human subjects, the question of ethical and legal innocuousness needs to be discussed with the supervisor, potentially including the Ethical Committee. In case of unclarity, always contact the Ethical Committee.

**Please note:** The Ethical Committee does not issue clearances retrospectively! This may mean, that in certain circumstances, the dissertation will not be accepted for submission.

### 6.7. Further procedure

#### 6.7.1. Assessment of the submitted thesis

Once the application for admission to the final doctoral examination has been submitted to the Doctoral Office with all required documents, the Doctoral Committee appoints the first and second expert. The first expert is normally the thesis supervisor. The Doctoral Committee passes the required documents on to the appointed experts.
6.7.2. Oral defence

Upon completion of the thesis assessment, the doctoral procedure is continued with an oral defence. Time and place of the oral defence are determined by the Doctoral Committee, announced at the Faculty meeting (§ 6, paragraph 3) and the applicant is notified at least 7 days before the appointed day by the chairperson of the Doctoral Committee.

During the oral defence, the candidate gives a 20 minute presentation on the results of the thesis. This is followed by a scientific discussion which is led by the chairperson of the examination committee (§ 14, paragraph 2).

6.8. Completion of the procedure

Upon completion of the oral defence, the doctoral candidate receives a copy of his/her thesis, as well as an information sheet regarding the further procedure. Doctoral theses which are no longer needed by the Doctoral Office will be destroyed unless an objection is filed.

*Within the period of 6 months, doctoral candidates must hand in the following:*

25 bound copies of the thesis – statutory copies – (format: DIN A5) – of which one copy has been signed by the supervisor – must be handed in to the University Library (Dissertationsstelle). Title of the thesis and name of the doctoral candidate must be on the cover of the statutory copies.

Electronic versions of the theses can also be submitted. The number of statutory copies is then reduced to six bound copies. File format and data medium are determined by the University Library (see [http://edoc.ub.uni-muenchen.de](http://edoc.ub.uni-muenchen.de)). The curriculum vitae does not need to be included in the bound or the electronic versions of the statutory copies.

Of work that has been published in a scientific journal or in a scientific series, with a minimum circulation of 150 copies – insofar as they have been accepted as thesis – the candidate must hand in 6 statutory copies to the University Library. In this case, the acceptance of the thesis must be endorsed on the back of the reprints’ title page.

6.9. Doctor’s certificate

The doctor’s certificate is only issued upon submission of the statutory copies (including the copy signed by the supervisor) and can be received from the Doctoral Office the earliest 4 weeks upon delivery of the statutory copies. The supervisor can hand out the certificate upon request. The doctoral candidate also receives an enclosure with the certificate, giving required information on how to go about governmental administrative procedures.
6.10. Doctor’s degree

The use of title of „Doctor“ is only authorised upon receiving the doctor’s certificate.
7. Doctoral degree in life sciences (Dr. rer. nat.)

The doctoral degree in life sciences (Dr. rer. nat.) is for doctoral candidates with a qualifying degree in the **life sciences**. You must have achieved a grade, which allows you to carry out a doctoral project at one of the life science faculties of the LMU.

7.1. Supervision

Supervision of the doctoral research project can **only** be carried out by a habilitated supervisor, who has a doctoral degree in the life sciences.

7.2. Application

**Before** commencing work on your doctoral research project, all candidates must apply for acceptance as a doctoral candidate. The application must contain the following documents:

- Curriculum vitae
- Certificate of good conduct (Führungszeugnis) or current certificate of enrolment or proof, that exmatriculation was a maximum of 3 months ago
- Confirmation of employer
- Qualifying degree in the natural sciences from the Faculty of Mathematics, Informatics and Statistics, the Faculty of Physics, the Faculty of Chemistry and Pharmacy, the Faculty of Biology or the Faculty of Geosciences (certified copy)
- Attestation that minimum grade needed was achieved
- Confirmation of successfully completed predoctoral examination - *if required*

The Doctoral Committee decides on the acceptance of doctoral candidates and appoints a supervisor according to the candidate’s proposal (§6).

The doctoral supervision agreement must be filled out, dated and signed upon appointment of a supervisor by the Doctoral Committee, and handed in to the Medical Faculty's Doctoral Office. It will remain there until the candidate applies for admittance to the final doctoral examination.

7.3. Pre-doctoral exam

The students who are only eligible for a doctorate at the relevant faculty after having completed a pre-doctoral examination, can complete the pre-doctoral examination according to either the examination regulations of this faculty (§3, paragraph 1) or to those at the Medical Faculty (§4).
7.3.1. Application for the pre-doctoral exam

In a pre-doctoral examination, the candidate must show knowledge and skills which will lead to a successful completion of the doctorate. For admittance to the pre-doctoral examination, the candidate must hand in a written application to the Doctoral Committee, naming a major and two minor subjects. The candidate proposes an examiner for the chosen major and minors to the Doctoral Committee.

The application must contain the following documents:

- A short curriculum vitae in English or German, giving information on the candidate’s education and potentially on an occupation held;
- Proof of a final examination in a relevant degree from the natural sciences at the Faculty of Mathematics, Informatics and Statistics, the Faculty of Physics, the Faculty of Chemistry and Pharmacy, the Faculty of Biology or the Faculty of Geosciences;
- Proof of a certain minimum grade which is needed according to the examination regulations of the candidate’s degree, in order to continue with a doctorate;
- A certificate of good conduct (unless the candidate is currently employed in civil service) and for international candidates, respective proof.

7.3.2. Further procedure for the pre-doctoral exam

(1) Appointment of main and co-examiners

The Doctoral Committee determines three examiners and appoints one of them as chairperson. The Doctoral Committee is not bound to the suggestions made by the candidate.

(2) Date / invitation

The chairperson determines an examination date and invites the candidate at least eight weeks before the specified date, stating the names of the examiners.

(3) Procedure

The pre-doctoral examination is an oral examination and has a duration of 30 to 45 minutes, spanning the candidate’s chosen major and minor subjects. The minor subjects must be suitable for the doctoral research project. A certificate is issued on the successfully completed predoctoral examination.

7.4. Duration

The duration of the doctoral project is a minimum of 2 years – you must prove that you have spent this minimum amount of time on your doctoral project by submitting confirmation from your supervisor.
7.5. Curriculum

There is no intended curriculum for this doctoral degree.

7.6. Thesis

7.6.1. General information

The thesis is to fulfil scientific standards and should contain new findings. It can be written in German or English – in both cases it must contain a summary in German and English. It must contain the following:

- Table of contents
- References
- Curriculum vitae
- Title page, showing at which institute/clinic the thesis was carried out

7.6.2. Cumulative thesis

The thesis can also be comprised of several scientific publications (see Chapter 4).

7.7. Admission to the final doctoral exam

Upon completion of the requirements for the doctoral degree in the life sciences, the application for admission to the doctoral examination can be submitted with the following documents:

- Application form (filled out and signed)
- Thesis (4-fold) bound in DIN A4 with an incorporated current curriculum vitae in German or English. The thesis must also include a summary in German or English.
- An electronic version of the thesis (1-fold, PDF-format, max. 5 MB!) must be handed in with the bound copies of the thesis.
- The affidavit must be incorporated in the bound version of the thesis and signed personally by the doctoral candidate.
- A signed confirmation that the bound version is in accordance with the electronic version (PDF-format) of the thesis.
- Confirmation co-authors (Form: „Cumulative Dissertation“) Only applicable when handing in a cumulative dissertation.
- Confirmation of having worked at a scientific or clinical institution of the Medical Faculty for 2 years under the supervision of a habilitated member, who has a doctoral degree in the natural sciences.
• The original doctoral supervision agreement (which was deposited in the doctoral office upon acceptance as a doctoral candidate)
• Form „Münchener Universitätsgesellschaft“
• If applicable, statement of having carried out external studies.

7.8. Further procedure

7.8.1. Assessment of the submitted thesis

Once the application for admittance to the final doctoral examination has been handed in to the Doctoral Office with all necessary documents, the chairperson of the Doctoral Committee will assign the supervisor with the first expert evaluation and a second member of the examination committee (who must also have a doctoral degree in the natural sciences) with a second evaluation.

Upon receipt of these two evaluations, the chairperson of the Doctoral Committee will circulate both the thesis and the evaluations amongst the members of the Examination Committee, with a request for opinions.

The thesis is accepted, if the evaluations and opinions of the Examination Committee members recommend a grading with „rite“ = 3 (sufficient) or better.

The Doctoral Committee can return the thesis once for revision.

7.8.2. Oral defence

Upon completion of the thesis assessment, the doctoral procedure is continued with an oral defence. Time and place of the oral defence are determined by the doctoral candidate and informs the Doctoral Office of this. The Doctoral Office sends out the invitations and the required documents for the examination to the chairperson of the examination committee two weeks prior to the date of the oral defence.

During the oral defence, the candidate gives a 30 minute presentation on the results of the thesis. This is followed by a scientific discussion which is led by the chairperson of the Examination Committee.

7.9. Completion of the procedure

Within one year after the oral defence, the candidate must deliver six bound copies and one digital copy of the thesis, as well as two forms for the delivery of electronic dissertations, to the Hochschulschriftenstelle (Documents Department) of the University Library. File format and data medium are determined by the University Library (see http://edocub.uni-muenchen.de). The curriculum vitae does not need to be included in the bound or the electronic versions of the statutory copies.
If the statutory copies are not delivered within the period prescribed, all rights acquired by the successful completion of the examination procedure expire.

**7.10. Doctor's certificate**

The doctor's certificate is only issued upon submission of the statutory copies and can be received from the Doctoral Office the earliest 4 weeks upon delivery of the statutory copies. The supervisor can hand out the certificate upon request. The doctoral candidate also receives an enclosure with the certificate, giving required information on how to go about governmental administrative procedures.

**7.11. Doctor's degree**

The use of title of „Doctor“ is only authorised upon receiving the Doctoral degree.
8. Ph.D. in Medical Research

At the LMU Munich’s Medical Faculty, candidates now have the opportunity of carrying out a 3-year structured Ph.D. in Medical Research. Objective of the program is a structured research training program which focuses on current content of medical research, in particular of biomedical experimental, clinical or translational research, or public health research, in particular the fields of epidemiology or public health. It is aimed at students with a qualifying degree in medicine, pharmacy, veterinary medicine, the life sciences, public health or a related field.

In order to give Ph.D. candidates a structured training environment, lecturers from different fields of the Medical Faculty have come together and defined core areas, in which they have committed themselves to the framework (recruitment, supervision, qualification and examination), defined in the Ph.D.’s Examination Regulations. This involves that a thematic core area offers respective courses (workshops, seminars, etc.) collectively. If needed and appropriate, Ph.D. candidates from other research areas are allowed to take part in these courses, thereby creating networks and synergies.

The concept of individual Ph.D. projects in the different research areas, coupled with a structured and partly integrative training program has proved successful over the past years.

Candidates will receive a Ph.D. (Doctor of Philosophy) upon successful completion of the program.

8.1. Application and selection process

The Ph.D. Medical Research has an application and selection procedure. For more information on the process and application deadlines, please see the respective research area, where you would like to carry out a Ph.D. (core area, research training groups, individual Ph.D.).

Once you have been selected for the Ph.D. in Medical Research, you will receive a letter of acceptance from the Munich Medical Research School. With this letter, you must then enroll at the LMU as a doctoral candidate. Information on the enrolment process can be found on the MMRS website under “Downloads”.

8.2. Supervision

8.2.1. Supervisor

The doctoral candidate is supervised by an authorized person (supervisor), who can be a member of the Medical Faculty, or from another faculty at the LMU or can belong to an external institution.
8.2.2. Thesis Advisory Committee

During the first semester of the doctoral research project, each Ph.D. candidate must form a Thesis Advisory Committee (TAC). The TAC is comprised of the supervisor, a second reviewer and a third person. All areas of the research project should be appropriately covered. At least two members of the TAC must be members of the LMU’s Medical Faculty.

8.3. Duration

The Ph.D. has a minimum duration of 6 and a maximum of 10 semesters. This means that candidates can hand in their thesis the very earliest at the beginning of their 6th semester. In respect to the maximum duration, candidates must have submitted their thesis and have completed their oral defence by the end of the 10th semester.

8.4. Target agreement and amendment

8.4.1. Target agreement

Together with his/her TAC, the Ph.D. candidate signs a target agreement, which not only reflects the supervision, but also gives information on the planned research project, milestones, curricular elements, etc. The target agreement is signed by all TAC members and the Ph.D. candidate. It must be handed in by the end of the second semester the very latest, otherwise the Ph.D. candidate will be exmatriculated from the program.

8.4.2. Target amendment

The Ph.D. candidate should meet with his/her TAC in regular intervals and discuss the progress of the Ph.D. project and to determine whether the Ph.D. candidate is adhering to the original target agreement. These meetings should be during the 3rd and 5th semester the very latest. Should the outcome of these meetings be in accordance with the target agreement, the research project can carry on as planned. If there are differences to the original target agreement, a target amendment needs to be recorded. If the TAC determines that certain elements have not been fulfilled by the candidate, it can decide that these need to be repeated. If the elements are not fulfilled within a retry, the TAC is safe to assume that the candidate will not be able to fulfil the other requirements from the target agreement for completion of the dissertation and the oral defence. In this case, the TAC is terminated, the Ph.D. project is ended and the student is exmatriculated from the program.

8.5. Curriculum

Within the framework of the structured Ph.D. program, you need to obtain a total of 180 ECTS:

- 30 ECTS within the curriculum
17 ECTS for methods & co
8 ECTS for conferences, retreats, etc
5 ECTS for skills

- 140 ECTS within the scope of the research work, including the dissertation
- 10 ECTS for the oral defence

The ECTS for courses can be achieved either within your core area or outside of it. All courses that are taken need to be approved by your TAC and a certificate of attendance needs to be handed in to the coordinator, if you took part in an external course.

8.6. Core areas and the individual Ph.D.

In order to complete a Ph.D. at the Medical Faculty, you can either join

- one of the available core areas or affiliated research training groups or
- carry out an individual Ph.D.

Which one is suitable for you, depends on your planned research project – if it falls into one of the research areas of the core areas/research training groups, you need to apply directly to them. If it does not fall into one of those areas, you can apply for an individual, tailor-made Ph.D.

8.6.1. Core areas and research training groups

There are currently four core areas and three research training groups associated with the Ph.D. Medical Research.

Each core area/research training group has a separate application procedure, as well as potentially having additional requirements for the admission and completion of the Ph.D., so please check with the respective websites and coordinators for further information or if you have any questions!

8.6.2. Individual Ph.D.

Doctoral candidates, whose research project does not qualify for one of the core areas or research training groups, can apply for an individual Ph.D. in Medical Research.

(1) Application for an individual Ph.D.

When applying for the individual Ph.D., you will need to submit the following information:

- Letter of motivation
- Research Proposal
- Planned curriculum
• Name of supervisor and further TAC members

You will also be asked to supply two letters of reference. The first letter must come from your Ph.D. supervisor and he/she should explain how and why you were selected for this position.

(2) During your Ph.D.
During the course of your Ph.D., your progress will be administered by the MMRS Office. You will need to hand in any course certificates or other proof of completed ECTS here, as well as submit your target agreement and other protocols of TAC meetings.

8.7. Thesis

8.7.1. General information

The thesis is to fulfil scientific standards and should contain new findings. It must be written in English and must contain the following:

• Table of contents
• References
• Curriculum vitae
• Title page, showing at which institute/clinic the thesis was carried out and which doctoral degree (Ph.D.) the candidate is aiming for
• Extensive summary

The dissertation may contain an annex which is not meant for publishing – this needs to be marked accordingly.

8.7.2. Cumulative thesis

The thesis can also be comprised of at least two scientific publications (see Chapter 4).

8.8. Submission of the thesis and admission to the oral defence

Once all requirements within the framework of the target agreement have been fulfilled, the TAC can initiate the scientific assessment of the thesis. You need to hand in the following information to the Doctoral Office, either personally or via post:

(1) Application form
The application form must be completely filled out and signed.
(2) **Thesis (5 copies)**
You must submit 5 bound copies of the thesis in DIN A4. The thesis must be paginated and adhere to regulations given in chapter 6.7.

(3) **Electronic version of the thesis (1 copy, PDF format)**
An electronic version of the thesis (PDF, max. 5 MB!) must be submitted with the bound copies.

(4) **CV**

(5) **List of all scientific publication (German or English)**

(6) **Affidavit**
The affidavit must be included in the bound versions of the thesis and be signed by the Ph.D. candidate.

(7) **Confirmation of congruency**
A signed confirmation of congruency between the bound and electronic versions must be submitted.

(8) **Confirmation co-authors**
Only necessary when submitting a cumulative dissertation.

(9) **Target agreement**
If this has not already been submitted.

(10) **Confirmation of ECTS**
Confirmation by respective coordinator, that all required 30 ECTS have been fulfilled.

### 8.9. Further procedure

#### 8.9.1. Assessment of the submitted thesis

Once the application for admission to the oral defence has been submitted with all required documents, the chairperson of the Doctoral Committee asks the supervisor and second reviewer to submit their expert opinions.

Upon submission of these expert opinions, the dissertation and opinions are forwarded to the two other members of the Examination Committee, as well as to the Doctoral Committee for comment.
The thesis is accepted if the expert opinions and comments all grade the thesis with a "sufficient" (4.0) or better.

The thesis can be returned to the Ph.D. candidate once for revision. The revised thesis must be submitted to the Doctoral Office within one year for re-evaluation.

8.9.2. Oral defence

Upon acceptance of the thesis the Ph.D. candidate is admitted to his/her oral defence. The candidate will receive a written invitation to the defence at least two weeks beforehand.

During the defence (which takes place in English), the candidate will present the results of his/her thesis during a 45 minute (maximum) public talk. Afterwards, there will be an oral examination (30 - 60 minutes) conducted by the Examination Committee.

The grading and communication of the grade to the candidate take place without the public.

A record of proceedings on the oral defence is written.

8.9.3. Publication of the thesis

Upon successful completion of the oral defence, the Ph.D. candidate must make his/her thesis available to the public. If acceptance of the thesis is dependent on imposed conditions, the revised version must be approved by the supervisor in writing, before submitting this final corrected version to the university library.

The title page of the dissertation must state "Dissertation zum Erwerb des Doctor of Philosophy (Ph.D.) an der Medizinischen Fakultät der Ludwig-Maximilians-Universität München", as well as the name of the institute/clinic at which the research was carried out and the date on which the thesis was completed.

On the inner title page, the supervisor and second reviewer are to be named, as well as the date on which the oral defence was carried out.

8.10. Completion of the procedure

Within one year after the oral defence, the Ph.D. candidate must submit 6 bound copies (statutory copies), a digital copy and 2 forms for the submission of electronic theses to the university library. File format and data medium are determined by the university library. Your CV does not need to be included in the bound or electronic versions of the statutory copies.

If the statutory copies are not submitted within the year, all rights obtained by the successful completion of the thesis and the oral defence are null and void.
8.11. Doctor's Certificate, Doctor's Degree and Transcript of Records

The Doctor's Degree ("Promotionsurkunde") is issued upon successful completion of the oral defence and submission of the statutory copies. It contains the date of the oral defence.

Simultaneously, the Doctor's Certificate ("Promotionszeugnis") is issued. It contains the same date at the Degree, as well as the title of the thesis, the individual grades (thesis and oral defence) and the overall final grade.

A transcript of records is also issued, which contains all completed courses and their respective exams, ECTS and grades (where applicable).
Within a period specified by the coordinator, the Ph.D. candidate can apply for insight into the examination records (expert opinions, comments, record of proceedings). Full examination records are kept for at least 5 years.
9. Contacts

If you have any questions or concerns, please contact either the Doctoral Office or the MMRS Office. Both will be able to help you.

9.1 Doctoral Office

The Doctoral Office is located at Bavariaring 19, 80336 Munich. It is situated on the ground floor and the office hours are as follows:

- Tuesdays from 09:00 to 12:00
- Wednesdays from 13:00 to 16:00

Telephone: +49 (0)89 4400 58904
Email: promotionsbuero.dekanat07@med.uni-muenchen.de

9.2. MMRS Office

The MMRS Office does not really have office hours, but it is vital to make an appointment before coming by!

Telephone: +49 (0)89 4400 58935
Email: mmrs@med.uni-muenchen.de
10. Attachments

10.1. Degree portfolio

<table>
<thead>
<tr>
<th>Degree</th>
<th>Dr. med. (Human medicine)</th>
<th>Dr. med. dent. (Dental medicine)</th>
<th>Dr. rer. biol. hum. (Human biology)</th>
<th>Dr. rer. nat. (Life sciences)</th>
<th>Ph.D. Medical Research</th>
</tr>
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<tr>
<td>Doctoral Committee</td>
<td>Doctoral Committee for Dr. med., Dr. med. dent. and Dr. rer. biol. hum.</td>
<td>Doctoral Committee for Dr. rer. nat.</td>
<td>Doctoral Committee for Ph.D. Medical Research</td>
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<td></td>
</tr>
<tr>
<td>For whom?</td>
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<td>Students of dental medicine</td>
<td>Students with a degree in life sciences or related</td>
<td>Students with a degree in medicine, life sciences or related subjects</td>
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</tr>
<tr>
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<td>Supervisor must be member of the Medical Faculty</td>
<td>Supervisor must be member of the Medical Faculty</td>
<td>Supervisor must be member of the Medical Faculty and have doctoral degree in the life sciences</td>
<td></td>
</tr>
<tr>
<td>Necessary documents?</td>
<td>Doctoral supervision agreement</td>
<td>Doctoral supervision agreement</td>
<td>Doctoral supervision agreement</td>
<td>Doctoral supervision agreement, target agreement and regular TAC meetings</td>
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</tr>
<tr>
<td>Application and selection procedure?</td>
<td>No application and selection procedure</td>
<td>No application and selection procedure</td>
<td>No application and selection procedure</td>
<td>Application for acceptance as doctoral candidate</td>
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</tr>
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<td>maybe</td>
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</tr>
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<td>not specified</td>
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<td>minimum of 2 years</td>
<td>minimum 3 years, maximum 5 years</td>
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<td>no</td>
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<td>German / English Monograph / cumulative</td>
<td>German / English Monograph / cumulative</td>
<td>German / English Monograph / cumulative</td>
<td>English Monograph / cumulative</td>
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<tr>
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<td>German Group defence</td>
<td>German Group defence</td>
<td>German Individual defence</td>
<td>German / English Individual defence</td>
<td>English Individual defence public</td>
</tr>
</tbody>
</table>
10.2. Timeline Dr. rer. nat.

The time between being accepted as a candidate and registration of the doctoral project, must not exceed 3 months. The minimum duration of 2 years is counted from the day you register your project.

10.3. Timeline Ph.D. Medical Research

Distribution of ECTS
- 30 ECTS Curriculum (methods, skills, conferences)
- 140 ECTS Thesis
- 10 ECTS oral defence