



Terms of Use

of the Analytics Core Facility Essen (ACE)

at the Center of Medical Biotechnology (ZMB)

of the Faculty of Biology of the University of Duisburg-Essen

release date: January 2020

§ 1 General Remarks

1. The Terms of Use of the Analytics Core Facility Essen (also referred to as ACE) at the Center of Medical Biotechnology (ZMB) of the Faculty of Biology of the University of Duisburg-Essen are based on the guidelines of the DFG „Hinweise zu Gerätenutzungskosten und zu Gerätezentren“ (http://www.dfg.de/formulare/55_04/55_04_de.pdf).
2. These Terms of Use are mandatory for all ACE users. They regulate access and general use of the ACE equipment and billing of incurred expenses.
3. The ACE offers scientists of the Faculty of Biology and of the Center of Medical Biotechnology (ZMB) priority access to state-of-the-art mass spectrometry-based analytics and when indicated support for mass spectrometry sample preparation.
4. In case of sufficient capacity, the ACE services are also available to other users from the University of Duisburg-Essen, from other universities or research institutes or companies.
5. Besides acknowledgement of these Terms of Use, all users are obliged to safeguard good scientific practice according to the guidelines of the German research council (DFG).

§ 2 Tasks

The tasks of the ACE are:

- a. implementation of service measurements for internal users and in case of sufficient residual capacity also for external users,
- b. to convey method competence to users in the context of university education,
- c. development and establishment of novel analytical methods,
- d. active participation in research projects as a full scientific partner,
- e. realization of independent scientific projects.

§ 3 ACE Management

1. The management of the ACE is achieved by an organizational and a scientific manager. Information on the current organizational and scientific managers are given on the ACE homepage (<https://www.uni-due.de/zmb/analytics/organisation.shtml>) and in the appendix of the Terms of Use.
2. The ACE is supervised by a five-member management board. The members of the management board are: the technical head of ACE, the head of the ZMB and the three main users (based on MS-usage time) of the last two years. All members of the managing board

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must be members of the University Duisburg-Essen. External users cannot become part of the management board. The head of this board is appointed by the head of the ZMB. Information on the current management board are given on the ACE homepage (<https://www.uni-due.de/zmb/analytics/organisation.shtml>) and in the appendix of the Terms of Use

3. After consultation with the Faculty of Biology, the management board determines the scale of fees for ACE usage (§ 7).
4. The management board may revise the Terms of Use at any time, however by an unanimous vote.

§ 4 Users

1. For organizational reasons, the ACE distinguishes between internal and external users.
2. Internal users are members of the Faculty of Biology or the ZMB and members of scientific research initiatives with ACE participation (see appendix). All other users are external users.
3. Main and equal users of the ACE are internal users.
4. In case of sufficient remaining capacity, following users may also use ACE services:
 - a. other members of the University of Duisburg-Essen,
 - b. members of other universities and nonprofit-oriented academic research institutes,
 - c. members from profit-oriented institutions (e.g. companies).

§ 5 Equipment and available services

1. The available ACE services are listed in the appendix of these Terms of Use. The services are subject to change and may be adapted if new techniques or equipment become available or upon a changed pattern of use.
2. The available equipment/hardware (e.g. mass spectrometers) are listed in the appendix to these Terms of Use. At any time, further equipment may be implemented into the ACE, e.g. to increase the ACE capacity or to establish new methods or techniques, as well as equipment/services may be temporarily shut down, e.g. due to low demand or the availability of alternative approaches to provide the requested service. The corresponding decisions are made by the organizational manager of the ACE.
3. A permanent shutdown or removal of equipment, e.g. due to a permanent breakdown of an ACE device or permanent low service demand, may be decided at any time by the management board via a simple majority vote.

§ 6 Staff

1. The staff is responsible for running the machines and performing the service measurements. This includes regular maintenance and, if necessary, small repairs.
2. The staff performs all measurements on the machines and advises the users, e.g. on suitable methodological approaches, sample preparation or analysis, interpretation and data storage.
3. The organizational manager of the ACE takes actively part in research projects by offering his/her expertise and by providing scientific advice to ACE users, e.g. on suitable

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methodological approaches or data interpretation. In some projects, he/she may independently perform the complete analytical workflow.

4. The organizational manager of the ACE is responsible for the implementation of new techniques and methods. To this end, he scans the scientific literature and keeps abreast of the latest technical developments on the instrument market.
5. Information on the current organizational manager of the ACE as well as other ACE staff members are given in the appendix of the Terms of Use.

§ 7 User Fees

1. The use of ACE instruments and services is subject to a fee. The user fee is calculated only from the project specific additional costs and does not contain any costs for staff responsible for basic operation and administration, service- and maintenance contracts, depreciation or reinvestment, lab space and upkeep.
2. The user fees are regularly evaluated and adapted based on the accrued project specific expenses over a period of 2 – 3 years.
3. The user fees are given in the price list (see appendix o the Terms of Use or <https://www.uni-due.de/zmb/analytics/organisation.shtml>). At any time, the Management board can adapt the scale of fees to a changed user demand or expense situation.
4. The user fees differ for each ACE instrument, internal or external use (see also §4 Users) and hands-on or service mode. The fees for profit-oriented use (e.g. a company) are calculated based on the full-cost accounting of the University Duisburg-Essen and are available on request.
5. Samples from external users that are generated within a research cooperation with an internal user will be billed according to the internal price list (service mode).
6. To a very limited extent, the ACE also offers measurement time at a discounted price e.g. for preliminary experiments for grant applications. The user may apply for such reduced prices; the subsequent evaluation of the application as well as the calculation of the reduced price is done by the Management board.
7. The user fees are billed after each project (external users) or via a time-based billing scheme (internal users, e.g. quarterly).
8. The underlying fee calculation scheme (hourly or per sample) is defined by the Management board and differs for each ACE instrument.
9. The fees for the ACE services have to be paid even if the obtained results are negative or non-satisfactory.
10. If in agreement with the German tax laws, fees for users from the University Duisburg-Essen will not contain VAT.
11. Users that contributed instruments to the ACE are not billed for the use of the **contributed** instrument.

§ 8 Right of command and briefing

1. Usually, all measurements will be carried out in the service mode by the personnel of the ACE.

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2. In justified cases (e.g. permanent recurring measurement), the organizational manager of the ACE may allow a hands-on use of an ACE instrument (hands-on mode) to internal users after a briefing by the ACE staff. There is however no claim to the hands-on mode.
3. The ACE staff members are authorized to issue instructions to the ACE user (right of command).
4. The ACE staff members are authorized to control, stop or cancel any ACE measurements.

§ 9 Liability

1. Any damage to ACE instruments or material that is caused by improper handling by the user (hands-on mode) is the liability of the user or his/her corresponding organizational unit (e.g. working group). Accordingly, resulting costs, e.g. for repair, have to be compensated by the user or his/her corresponding organizational unit.
2. The user is liable for injury to persons or damage to material that is caused by a delivered sample without proper documentation of potential hazards at sample submission.
3. The ACE is not liable for loss of any data, damage to private equipment or for non-satisfactory results even if the issue was caused by ACE personnel.

§ 10 Measurements, Instrument use and Service time

1. The ACE services are open to all user groups listed in §4 with priority for internal users. Samples are processed primarily in the order of their arrival. The organizational manager of the ACE however may decide to change the processing order at any time.
2. Some methods are not always available. The organizational manager of the ACE schedules the method availability.
3. First-time ACE users must contact the organizational manager of the ACE before sample preparation or delivery for a personal ACE briefing.
4. ACE users are obliged to provide the organizational manager of the ACE a duly filled Sample Submission Form (SSF) for every set of samples (also referred to as project) **before they begin** to prepare their samples. The SSF must contain 1) the objectives of the project, 2) the experimental design, 3) the protocol for sample preparation and 4) all other important sample parameters. The SSF is evaluated by the organizational manager of the ACE and samples may only be submitted to the ACE upon acceptance of the provided SSF. The most recent version of the SSF can be downloaded from the ACE-Website.
5. First time external users (except other members of the University Duisburg-Essen) must conclude a special contract before sample submission. Contracting partner for the ACE is the organizational manager of the ACE. This contract regulates the extent of the delivered services and governs mutual rights and obligations. This contract has to be renewed at least every year or if the user changes his/her institution.
6. The organizational manager of the ACE is authorized to temporarily exclude a user from ACE services if he/she has deliberately violated ACE rules or regulations. In serious cases (e.g. ACE personnel was deliberately endangered) or frequent violation of ACE rules and regulations, a permanent exclusion from ACE services may be declared.

7. If a non-routine method is requested that is not listed in the price list, an individual quote must be requested from the organizational manager of the ACE. An acceptance of this quote is required prior to sample submission.

§ 11 Copyright and Data Backup

1. Unless otherwise stated, the copyright to all data generated in the ACE belongs to the ACE.
2. The use of ACE instruments or services has to be acknowledged in scientific publications (e.g. in the “Acknowledgement“). If the ACE staff members have actively participated in the research project, e.g. by performing sample preparation, scientific advice or data analysis, they have to be included as co-author(s) in publications with ACE data.
3. All ACE users acknowledge that all generated ACE data and files will be archived for at least 10 years in the ACE. The data and files are also backed up on a dedicated data server (NAS) and on a separate archiving tape drive of the University Duisburg-Essen. The data backup procedure is carried out in accordance with the rules for good scientific practice of the German Research Council (DFG)

These Terms of Use come into force on the day of their publication.

Appendix

ACE-Attached Departments and Research Initiatives (§1)

Center of Medical Biotechnology (ZMB)

Faculty of Biology

SFB 1093

Management and Contacts (§3)

Head

Function	Name	Contact (fon)
Organizational Manager	Dr. Farnusch Kaschani	+49 201 183 4924
Scientific Manager	Prof. Dr. Markus Kaiser	+49 201 183 4980

Management board

Members	Contact (fon)
Prof. Dr. Michael Ehrmann	+49 201 183 2949
Dr. Farnusch Kaschani	+49 201 183 4924
Prof. Dr. Markus Kaiser (Head of Board)	+49 201 183 4980
Prof. Hemmo Meyer	+49 201 183 4217
Prof. Dr. Peter Bayer	+49 201 183 4677

Machine Park and Services (§ 5)

Machine Park

1. Orbitrap Elite (Thermo Scientific) with Easy nLC 1000 UPLC (Thermo Scientific), Year of purchase 2012
2. LCQ Fleet (Thermo Scientific) with Accella 600 HPLC (Thermo Scientific), Year of purchase 2011
3. Exactive PLUS EMR (Thermo Scientific) with TriVersa Nanomate (Advion), Year of purchase 2014
4. Orbitrap Fusion LUMOS (Thermo Scientific) with Easy nLC 1200 UPLC (Thermo Scientific) and attached HDX Automation (PAL), Year of purchase 2019

Services

1. Recording of mass spectra in direct injection mode with ionization technique ESI and optionally exact mass determination.
2. HPLC-MS-Measurements (ESI)
3. Mass determination of intact proteins or protein complexes (denaturing or native)

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4. Mass spectrometry-based protein identification of affinity purified proteins or complex full proteome samples either qualitative or quantitative (relative or absolute)
5. Identification and optionally quantification of post-translational modifications.
6. Hydrogen/Deuterium Exchange mass spectrometry for protein and protein-complexes
7. High resolution mass spectrometry of purified small molecules (synthesis products, only infusion)
8. Basic data analysis and delivery of the overview spectra or initial results
9. Scientific data interpretation by ACE staff members upon request.

Personal (zu § 6)

Function	Name	contact (fon)
Organizational Manager	Dr. Farnusch Kaschani	+49 201 183 4980
Laboratory Assistent (full time)	Svenja Blaskowski	+49 201 183 6913

User Costs/Fees --- Price List (§7)

All prices below are in Euro (€) excluding VAT.

Device	Price ^[1] [€]	Calculation basis ^[4]
Orbitrap Elite	-/12/12	per hour
LCQ Fleet	2/5/5	per sample
Exactive Plus EMR	2/5/5	per emitter
Orbitrap Fusion LUMOS	-/15/15	per hour

¹ The first value is the price for internal users² and self-service, the second value is for internal users and full-service and the third value is for external³ non-commercial users (only full-service possible). Prices for commercial users will be supplied upon request (full-cost pricing according to University Duisburg-Essen regulations).

² ZMB, Faculty of Biology and other attached research initiatives

³ UDE, UKE, other universities and academic research institutions that use services of the ACE in the context of a research collaboration (joint publication or project).

⁴ Please note that the final device usage hours are calculated from the actual analyte measurement time added by the measurement time of wash-runs and standards.

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Essen, den

Prof. Dr. Markus Kaiser
(scientific manager of the ACE)

Dr. Farnusch Kaschani
(organizational manager of the ACE)