



THE COBE LAB **HANDBOOK**

Practical information about
how to run your experiment

Welcome to COBE Lab

Dear researchers and research assistants,

We are pleased to welcome you to COBE Lab.

As you may already know, COBE Lab is a shared infrastructure for research at Aarhus University. We offer a place to conduct controlled behavioural experiments using a wide range of methodologies and equipment. As a researcher, you get access to lab rooms, equipment, our pool of participants and relevant guides and procedures to help you in the data collection process of your research project.

In this handbook you will find most of the information you need to run your studies in the lab. We know that there are many practical matters to think of when you are collecting data with research participants. For this reason we have streamlined procedures to make it easier for you to conduct your experiments and to make sure you have thought of everything you need. You can use this handbook as a reference and checklist when planning your experiment and collecting data in COBE Lab. You can find all information and forms on our website www.bss.au.dk/cbl.

We hope you will benefit from our facilities and conduct novel, important and exciting research here.

Dan Mønster and Marc Hye-Knudsen
Lab management



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Introduction and tour of the lab

Introduction meetings

During each semester we invite new researchers and research assistants to a joint introduction meeting.

The purpose of this meeting is to give you a thorough introduction to our facilities. We will give you insights into the process of submitting applications, introduce you to various systems and give you a few tips on recruiting, booking, and much more.

The meeting is split into two parts, with a tour of the lab in between. Part one deals largely with the application process, while part two deals with the practical issues and challenges that arise when you are running an experiment.

Individual meetings

You are always welcome to arrange an individual meeting with a lab manager, if you have specific questions. Here, we also show you the lab rooms and equipment, give advice on your research design regarding practicalities, recruiting and planning and answer any questions you may have.



Contact lab managers to schedule a meeting
cobelab@au.dk



Research project checklist for COBE Lab projects

Below you see the infographic for our general procedures. At any one time, your research project at COBE Lab will be categorised in one of three stages: 'planning', 'active' or 'completed'.

Planning stage

In this stage, the researcher is asked to submit documents necessary for diligent planning of the study protocol. The research is reviewed by our Human Subjects Committee together with lab management to ensure that COBE Lab's ethical policy is followed.

Active stage

When the research plans has been reviewed and approved by the Human Subjects Committee the research project moves to the active stage. In this stage, data collection is ongoing. This involves booking labs and equipment, recruiting and reimbursing participants.

Completed stage

After data collection is finished, the research project is complete. This means that all data must be anonymised and payment receipts must be destroyed. Remember also to notify lab management and return all keys and equipment to COBE Lab.



Planning stage checklist

This stage involves a bit of paperwork. You must submit the forms mentioned below to cobelab@au.dk in order to create your project in COBE Lab. Please take your time to fill in the documents and provide accurate information about your project. This will ease the workload for both you and us and make the evaluation process much faster.

To start your project you need to submit these documents to cobelab@au.dk:

- Pre-study form
- Research ethics checklist
- Consent form
- Project account information form
- Ethics certificates



Find all forms and templates
cobelab.au.dk/forms

Submit pre-study form

The pre-study form documents the practicalities of your study e.g. what lab rooms and equipment you need, number of participants, the research group etc. The purpose of the form is to help lab management coordinate all the projects in COBE Lab. Mail the completed pre-study form to cobelab@au.dk and lab management will review it and provide comments if necessary.

Register project with jurists at AU

Research activities including personal information must be registered internally at Aarhus University. On TTO's website there are two forms to choose from, one if you are the data controller and one if you are the data processor. You can read more about each kind on the website, but under normal circumstances you will need to fill out the data controller form for projects in COBE Lab.

Projects exempted from registration

If you only collect names and CPR numbers for payment purposes, you do not need to register your project.

If you are a student (bachelor/master student), the project should not be registered. Students are independent data controllers.



Learn more about data protection
cobelab.au.dk/data

Submit research ethics checklist

The research ethics checklist contains a number of questions about your research project that helps you to think carefully about research ethics. The members of our Human Subjects Committee evaluate your research ethics checklist, provide you with advice and guidance about ethics and decide whether access to COBE Lab is granted.

When you fill out the checklist, you need to provide and elaborate all necessary information. It is important that you describe in detail what the participants are exposed to. As an example, if you show participants a number of photos, you need to describe what kind of photos and if the content is completely neutral (e.g. cake) or if it could be disturbing (e.g. dead body).

A detailed description will eliminate the number of questions and concerns from the committee and make the evaluation process shorter.

Submit consent form

A consent form provides participants with sufficiently detailed information about the study, in order for them to make an informed, voluntary and rational decision to participate. We strongly recommend using written consent and to use our template for consent forms, which is found on our website.

The consent form must be submitted together with the research ethics checklist.

Letter from Human Subjects Committee

You will receive a formal letter by email from the Human Subjects Committee, once your research ethics checklist and consent form has been evaluated.

If the committee has required or recommended changes to your protocol this will be stated in the letter. It will also say whether or not further communication about these changes is needed.

Approval from other committees

The Central Jutland Regional Committee on Health Research Ethics

You only need approval from this committee, if your study is a health research project and involves clinical trials or human biological material is collected. The law requires that all health research projects are approved by this committee.

Aarhus University's Research Ethics Committee

Aarhus University's Research Ethics Committee is a formal institutional review board which is designated to review research projects. You need this approval if you require a formal ethics approval, and your project is not eligible to be reviewed by the regional committee on health research. Approval from this committee is not a requirement in order to do research in COBE Lab.

Arrange payment of participants

If you recruit participants from our participant pool, you are required to pay them. The minimum payment is 110 DKK per 60 minutes. It is possible to have a study design in which payment varies on e.g. performance, but the average payment must correspond to 110 DKK per 60 minutes.

You may pay by bank transfer, cash or lottery-like payment. No matter what type of payment you choose, you need to collect names and CPR numbers of the participants for documentation purposes.



Find the payment policy
cobelab.au.dk/payment

Submit project account information form

The project account information form details where your finances are coming from and who is in charge of the payments. It helps lab management settle queries concerning payments. You only need to submit this form to us if you pay by bank transfer.

Sheet 1 details project account information and must be send to cobelab@au.dk. Sheet 2 is for entering participants' payment information and must be sent to your secretary continually during data collection.



Find the project account information form
cobelab.au.dk/forms

Ethics certificates

Ethics certificates are a requirement when you conduct research with human subjects in COBE Lab. Researchers and research assistants involved in data collection with participants need to take an ethics course. We recommend the Protecting Human Research Participants (PHRP) online course.

The cost of the course is 49.99\$. When buying access to the course, leave the box "Participate in CME?" unchecked. Otherwise you will be charged an additional 25\$ for the course.



Find link to ethics course
cobelab.au.dk/ethics

Active stage checklist

As soon as you have submitted all forms and received a letter from the Human Subjects Committee with granted access to COBE Lab resources, you are able to start collecting data with participants. Your project is now in the active stage.

Keys and access to COBE Lab building

Lab management will arrange a meeting to give you keys to the lab and to an archiving locker you can use while running the experiment. We are not able to provide an unlimited number of keys, but you will get 1-2 keys that you need to return, when the data collection in COBE Lab has finished. All researchers and research assistants have access to the lab on their access card.

If you hire a research assistant later on, you need to send the person's AU ID number to cobelab@au.dk together with the ethics certificate in order to get access on the access card.

Run a pilot

Always pilot your experiment and make sure everything works. If you make any changes to your research design in this process, please make sure to inform Human Subjects Committee about these changes by sending an email to cobelab@au.dk or use the amendment protocol in the research ethics checklist.

In some cases pilots for experiments can be run before full approval from the HSC has been given. Arrange this with

Lab Management. In this case you are not allowed to use participants from the pool.

Book resources

When you are ready to start your data collection, you have to book the resources you need in our booking system 'Booked'. Lab management has provided you with access to the system by email. In Booked you can view all our available equipment and lab rooms.

Announcements in Booked

After logging in, you will be directed to your dashboard. You will be able to see Announcements, Upcoming Reservations and Resource Availability.

Announcements offer an overview of all your projects and their individual status. A project is either in the planning, active or completed stage. You are only allowed to book rooms or resources when your project is active. If the project is in the planning stage, the announcement will include a list of what needs to be done to make the project active.

Booking labs and equipment

From booking.cobelab.au.dk/Web select 'Schedule', then 'Bookings'. A booking calendar appears. Use the 'Repeat' field to book sessions across multiple days. Choose between daily, weekly and monthly intervals. When using the repetition function, the 'Beginning' and 'End' dates should be the same date.

More resources on same booking

Click 'Change +' next to 'Resources' to add more resources to the same booking. It's important to check if a resource is free before it is added to the booking – otherwise it will not be possible to complete the booking.

Booking code of conduct

Please show consideration for other researchers who may need access to the same resources during the same period. Follow our few rules of conduct:

Adjust bookings continually

Always adjust your bookings continuously. For example if you do not need the lab room, you have booked every day for the next week, please delete your booking, so other researchers may book the resources instead.

Avoid block-booking

Avoid block booking of equipment, especially across multiple days. Instead, use the 'repeat' function in the booking system to book on multiple days.

Match your bookings with your Sona timeslots

Always book the resources you need and make sure that your timeslots in Sona match the bookings in our booking system. This is to avoid 'double bookings'.



Book labs and equipment
cobelab.au.dk/booking

Recruit participants

Our participant pool is managed by a system called Sona. Here, you recruit participants. You add your study with a short description, manage timeslots and cancellations and send emails to participants. Remember that using our pool also means agreeing to help recruiting new participants to the pool.



Recruit participants in Sona
aucobe.sona-systems.com

Add your study in Sona

Log in to Sona with the log-in information that has been sent to you in an email from the Sona system. Click 'Add New Study' and choose from the several types of study designs. Then you fill in information about your project. When complete you must send lab management an approval request. From the 'Study Information' menu, click 'Send Request'.

Restrictions based on prescreen responses

It is likely that not all participants in the participant pool will be eligible for your study. For example, you may wish to recruit only females or males or only those with fluency in Danish or English.

By clicking on 'Study Information' and then 'View/Modify Restrictions' (upper right corner) one can set pre-screen restrictions for participants. Restrictions can be set based on every individual answer given in the pre-screen survey.

Adding time slots

Time slots indicate sessions informing where and when the experiment is to be conducted. Participants select a time slot and researchers can be notified by mail when this occurs. By clicking 'View/Administer Time Slots' you can add and edit time slots. In doing so, you can specify the date, start time, number of participants and the location. Please make sure you have booked a room and necessary equipment before setting up a time slot.

Credit participants

In Sona you will be asked to credit participants who have participated in your study. Here you choose between 'participated', 'unexcused no-show' and 'excused no-show'. Participants are marked as 'unexcused no-show' if they did not show up to your study and did not cancel beforehand or shortly after the planned session. Participants are only allowed to do this once. The second time they are marked as unexcused no-show, their accounts are limited from participating in studies. If a participant contacted you to cancel his/her's appointment, this is regarded as an excused no-show, which has no consequences.

Show-up fee

For various reasons, you may recruit more participants than required in order to attain a minimum number of participants to run a session. As a consequence there may be participants who show up for a study but do not participate in the actual study. These

participants are to receive a show-up fee (typically 40 DKK). It is very important to correctly record show-up fee participants in Sona as excused no-shows and to subsequently write this in the comments field. These participants may sign up for the study again in a different time slot.

Pay participants continually

It is crucial that you pay participants as fast as possible. At the beginning and middle of each month there is a payment deadline for salary payments at AU. Before the deadline you must send your Excel spreadsheet with participant payments to the secretary who is responsible for your payments. You must send the payments on an ongoing basis as the participants expect to be paid within six weeks. Missing and late payments have negative consequences for COBE Lab's reputation and for the possibilities to recruit participants. So please take care of your payments in time!

Store consent forms and payment information safely

During the data collection with participants you will gather signed consent forms and payment information forms with CPR numbers. The documents must be kept safe and without unauthorised access. Do not leave them in the lab rooms or carry them around in your bag. If you need a safe place, you may ask lab management to get access to the lockers in our copy room.

Advertising your study

Here is a couple of ways to recruit participants for your study. We help you advertise your study on COBE Lab's social media and by emails to participants, but you can also do a lot yourself to promote your study.

Weekly study reminder

Participants automatically receive a weekly announcement of upcoming available studies. This is usually on Sundays.

Facebook announcement

COBE Lab has a Facebook page on which we announce new studies. You find the Facebook page by searching for Cobelab. Request lab management to post your study, if they did not already do this.

Instagram post

On Instagram we post short stories about researchers. There will be a photo of the researcher and a few lines about the project. Ask lab managers to create a post, if they did not ask you already.

Advertise your study at lectures

If you are teaching you can tell your students that they can sign up as a research participant at COBE Lab to help researchers at Aarhus University and earn a bit of money in doing so. You can spread the word among your colleagues, students and classes.

Spread flyers

Pick up some flyers or bookmarks at the COBE Lab office to spread around student areas, canteens, libraries or the like. You can also make your own flyers for your specific study.

Share in Facebook groups

Post your study in the several Facebook groups that exist. E.g. if you are looking for sporty people or mothers you will find relevant groups for this.

Mass emails

As a last resort we will send out mass emails to the participants in the pool promoting your specific study. We only do this occasionally to avoid spamming participants.



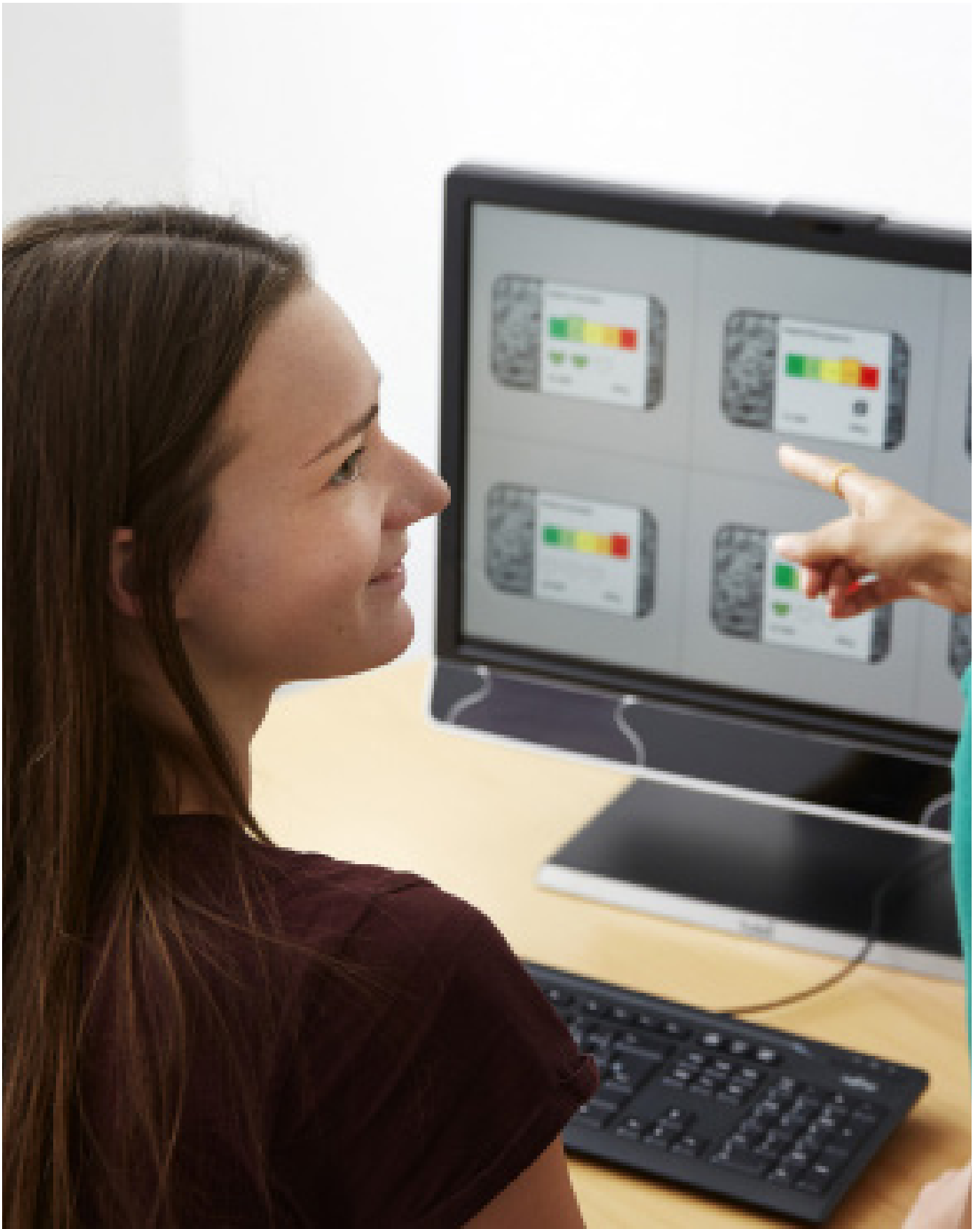
/cobelab_aarhus

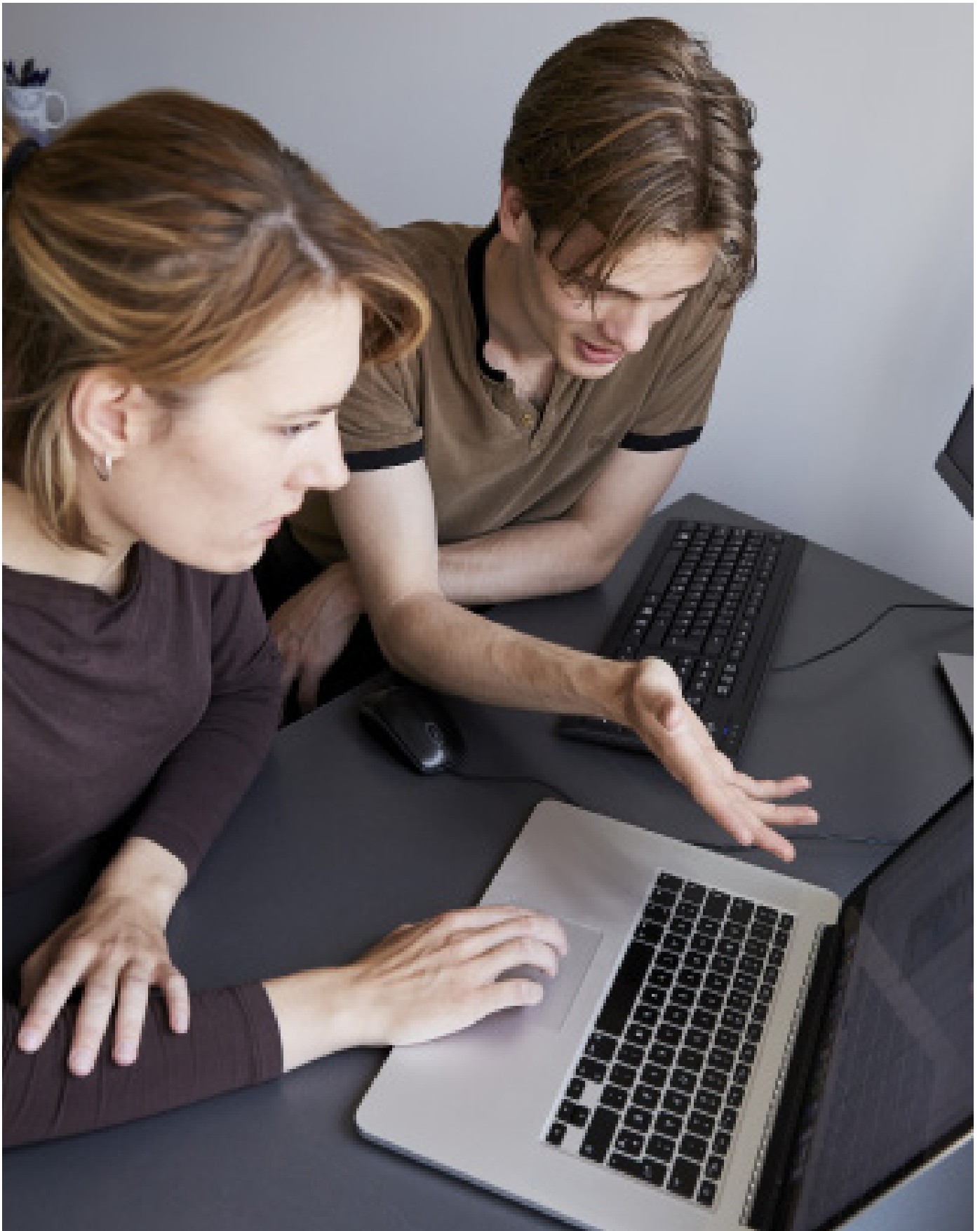


/Cobelab



/Cobelab





Completed stage checklist

Your project is complete in COBE Lab when you have finished collecting data with participants. Once your project is marked as completed in COBE Lab, it is not possible to collect more data. If you wish to do so, you must resubmit your project.

Anonymise or delete data

Anonymise your data as fast as possible. You do this by deleting all personal identifiers when they are no longer required. Remember to delete audio or video recordings that you have analysed or transcribed.

Delete programs and files on the computers

Clean the computers for whatever programs and files you have used on it. Otherwise, you may risk that other researchers have access to your files or your data on the computers.

Destroy or delete payment information

All papers or excel spreadsheets with names and CPR numbers must be destroyed or deleted as soon as the payments are processed. Feel free to use our shredder in our printer room for the payment receipts. Remember to delete the attached excel files from any emails you have sent.

Tidy up the lab room

Please leave the lab room cleaned and furnished as when you began using it.

Return keys and equipment

Return all keys and borrowed equipment to lab management.

Inform lab management

Send a notification to lab management that your project has ended. Your project will be marked as completed and you are no longer able to collect data with participants on this project.

Inform jurists at AU

If you have sent a data notification form to the jurists at Aarhus University, you need to inform them when the data is anonymised and/or when your project has ended.

Store consent forms

Signed consent forms must be stored safely after the project is complete. It is usual practice to keep consent forms a couple of years after the project has ended.

Practical information

Newsletter

In our newsletter we keep you updated on developments in the lab and relevant announcements. As associated researcher you are automatically subscribed to our newsletter. If you do not receive our newsletter, you can contact cobelab@au.dk and we will add you to the list.

Research assistant office

On floor 1 behind the waiting room you find a research assistant office. Here you can work, while you are waiting for participants to finish their sessions.

Parking

You can find a map of public parking areas close to Cognition and Behavior Lab on our website. Employees at Aarhus University can also issue a guest parking permit for visitors and participants. This is done via staff.au.dk. Once a guest parking permit is obtained, the guest may park in any of the employee parking spaces found here — including the parking area right outside Cognition and Behavior Lab.

Leave windows closed and doors locked

When you leave the lab, always make sure that all windows are closed and that doors are locked. This is to prevent theft and burglary. AU has an alarm system that will activate if the windows are left open.

Research assistant list

The research assistant list is primarily a list of students and research assistants, that have previous experience in COBE Lab. You sign up for this list if you are familiar with the procedures of running a study in COBE Lab and interested in future employment.

Researchers who are looking for a research assistant will write a short description of their research project including work tasks, work period and contact information. If you are interested, you may offer your employment to the researcher.

Print

You have access to AU printers on both floors. On floor 1 the printer is in the printer room in room I115. On floor 0 the printer is placed in the control room. If you do not have an AU computer, you cannot print from your own computer. In this case, use the research assistant laptop in the research assistant office to print or use a USB cable.

Extra accessories or equipment

If you need extra monitors, cables, keyboards or the like, get in contact with lab management and we will help you find what you need.

Sessions out of hours

You are allowed to run sessions out of hours and in weekends. You will need your access card to get in and you will have to meet the participants at the front door, as the door will be locked.

The front door in the building is open:

Mon-Thu	7.30-17.00
Fri	7.30-16.00
Sat-Sun	Closed

Phone numbers

Lab Management (the lab, bookings, participants, equipment etc.)

COBE Lab office, cobelab@au.dk
Building 2635, I110
Fuglesangs Allé 20
8210 Aarhus V.

Marc Hye-Knudsen, phone 93508899, marc@econ.au.dk
Dan Mønster, phone 93508055, danm@econ.au.dk

Door opening hours:

Mon-Thu	7.30-17.00
Fri	7.30-16.00
Sat-Sun	Closed

IT/AV assistance (network, printing, Eduroam, etc.)

BSS IT, Fuglesangs Allé
Phone 87150933

Opening hours:

Mon-Fri	8.00-18.30
Sat	8.30-15.30
Sun	Closed

Building services (alarms, lightning, furniture, access, heating, etc.)

Building Services, Fuglesangs Allé
Phone 87164113

Opening hours:

Mon-Thu	7.00-22.00
Fri	7.00-18.00
Sat	7.30-17.00
Sun	Closed

Emergency 87 15 16 17

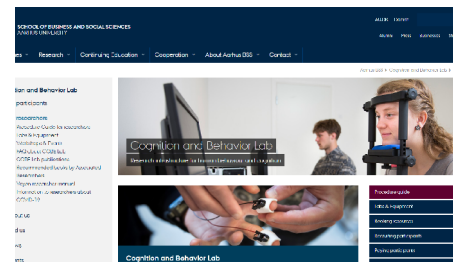
AU's emergency number is only in cases of fire, accidents or life threatening situations at the university.

Links

COBE Lab webpage

On this page you find most of the information you need about procedures, templates, forms and the like in the 'For researchers' section.

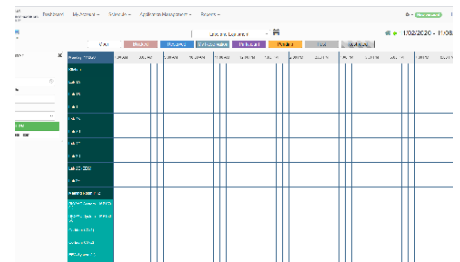
www.bss.au.dk/cbl



Booking system

On this page you find announcements related to your projects and book labs and equipment.

booking.cobelab.au.dk/Web



Sona recruitment system

On this page you add your study in order to recruit participants, manage timeslots and send emails to your participants.

aucobe.sona-systems.com



AU data registration

On this page you register your project if you collect personal data and find information about AU's data protection policies.

medarbejdere.au.dk/en/informationsecurity/data-protection

People and organisation

Lab managers

Dan Mønster

Associate professor, Department of Economics and Business Economics and Department of Management
Lab director

Marc Hye-Knudsen

Technical-administrative staff, Cognition and Behavior Lab
Lab manager

Scientific Advisory Board

Per Baltzer Overgaard

Professor, Vice-dean for Research and Talent Development at Aarhus University, Business and Social Science
Chairperson

Andreas Roepstorff

Professor, Department of Anthropology, Department of Clinical Medicine and Interacting Minds Centre
Board member

Alexander Koch

Professor, Department of Economics and Business Economics and Trygfonden's Centre for Child Research
Board member

Carsten Bergenholz

Associate professor, Department of Management
Board member

Michael Bang Pedersen

Professor, Department of Political Science
Board member

Human Subjects Committee

Julia Nafziger

Professor, Department of Economics and Business Economics
Chairperson

Lasse Laustsen

Associate professor, Department of Political Science
Committee member

Cordula Vesper

Associate professor, School of Communication and Culture
Committee member

Anne Peschel

Senior researcher, Department of Management and MAPP
Committee member

Fabio Trecca

Postdoc, School of Communication and Culture
Committee member

Sonja Perkovic

Assistant professor, Department of Management
Committee member

Marc Hye-Knudsen

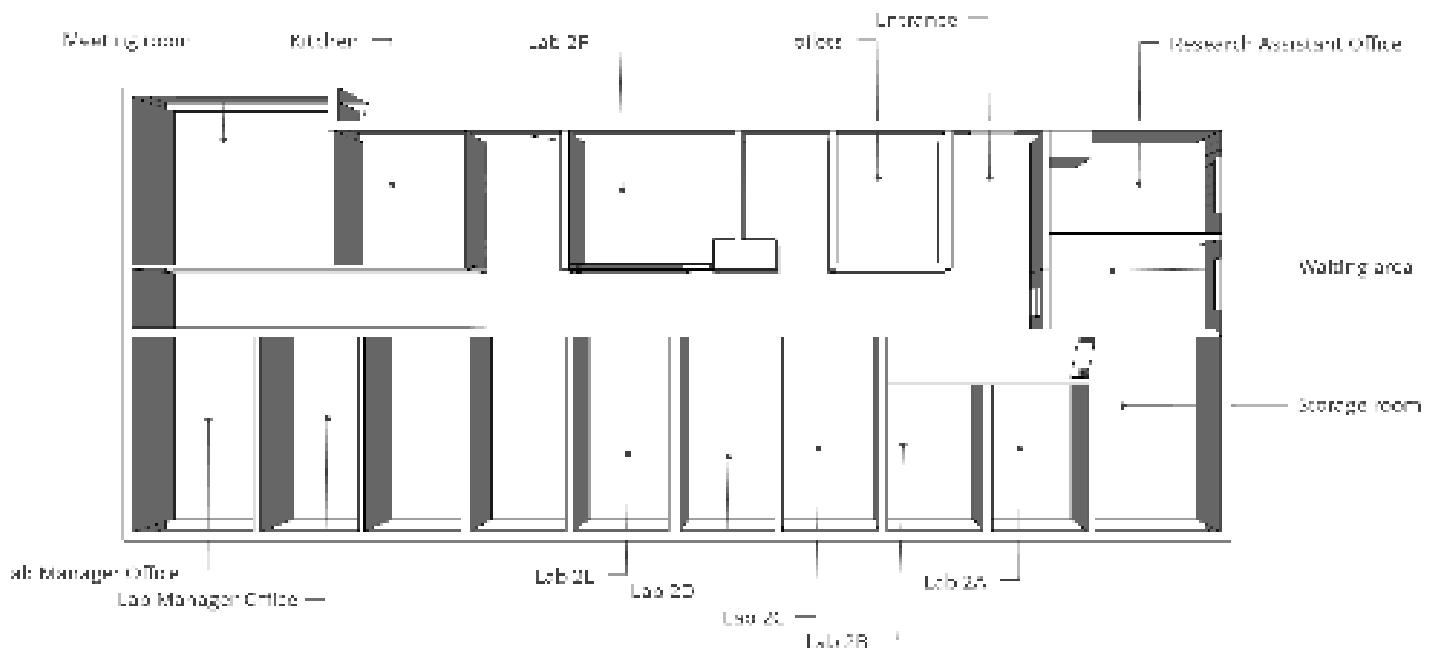
Lab manager, Cognition and Behavior Lab
Lab management representative

Location on campus

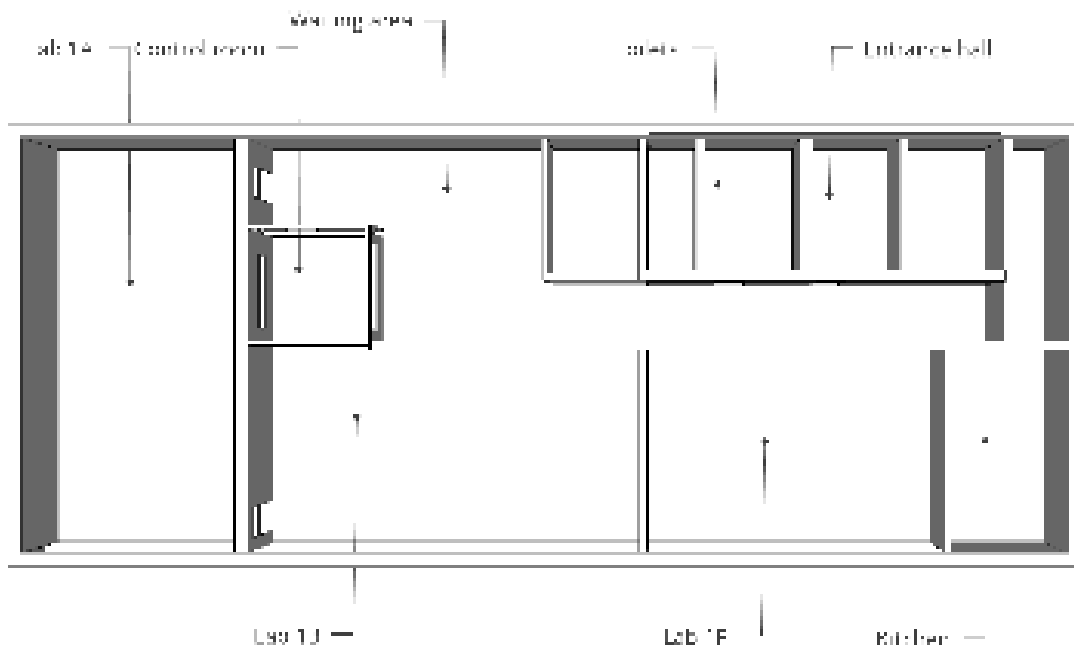


Floor plan of COBE Lab

Floor 1



Floor 0



Overview of equipment

Eye-tracking

Eye-tracking equipment allows you to measure eye movements and fixations. With our screen-based eye-tracking equipment, you are able to collect data in controlled lab environments and gain an understanding of the participants' visual attention.

- > An Aurora laptop kit that includes an Aurora Eye Tracker, an HP laptop, and a NUC.
- > EyeLink 1000 with remote option
- > Tobii T60 XL
- > Built-in Tobii eye-tracking in our HP Reverb Omnicept Edition VR headset
- > Pupil Labs bionocular add-ons for our HTC Vive VR headsets

EEG

>Enobio 8 wireless EEG that allows for 8-channel EEG recording in high dynamic resolution using either dry or gel-based electrodes. Includes a rechargeable battery with an operating life of 6.5 hours with wireless data transmission. Compatible with iMotions.

- > Two brain Products ActiCap Xpress Bundles plus a 16 channel V-Amp amplifier including two caps (L/XL), 16 signal plus 1 reference and 1 ground electrodes, 38 QuickBits in different lengths and accessories

Psychophysiology

Psychophysiological measures are used to assess the connection between psychological and physical states. The lab has equipment that allows you to measure some of the common psychophysiological signals, such as electrodermal activity (EDA), electrocardiography (ECG), respiration and electromyography (EMG).

- > Two BIOPAC MP150 systems with PPGED, RSPEC, EMG100C, ECG100C, GSR-100C, STP100C modules and various electrodes

Virtual reality

Our virtual reality equipment uses room scale tracking technology to track the participants' movement in 3D space. Handheld motion-tracked controllers are used to interact with the environment.

- > HP Reverb G2 Omnicept Edition headset with built-in sensors to measure muscle movement, gaze, pupil size, pulse and more.
- > Two Oculus Quest 2 headsets with Elite Straps
- > Two HTC Vive headsets with accessories with eye-tracking add-ons
- > VR suitable computers

Computers, iPads and monitors

We have a number of spare desktop computers, laptops and iPads available to equip the lab rooms with what you need.

Audiovisual

A range of audiovisual equipment such as cameras, microphones and headsets are available, if you need to record video or audio in your experiment.

Software and licenses

Several software options are available for recording and analysing data:

- > TOBII Studio (for use with Tobii T60 XL)
- > Noldus FaceReader, Observer XT, theme
- > BIOPAC Acknowledge 4 (for use with BIOPAC equipment)
- > iMotions core module + screen-based eye tracking module (for use with Aurora eyetracking bars)
- > OpenViBE (for use with EEG)
- > Experiment Builder (for use with EyeLink 1000)

Overview of lab rooms

Lab 1A and lab 1B

Large computer interaction labs

COBE Lab has two computer interaction labs and a control room situated between the two lab rooms. Each lab features 16 desktop computers. This arrangement allows you to conduct experiments with up to 32 participants at a time.

Control room

In the control room you have a view of the two labs and are able to control and monitor all screens from the two admin computers.

Local network

All computers in the two labs are interconnected in a local network, which makes it possible to connect participants in pairs or groups to solve a task together.

Lab 2A-2F

6 small neutral labs

Lab 2A-2F consists of 6 small lab rooms suitable for experiments with 1–2 participants at a time. They all feature black-out curtains and soundproof doors.

Eyetracking labs

Lab 2A and 2B are primarily reserved for eyetracking experiments and feature the EyeLink 1000 and Tobii T60 XL. Lab 2C and 2D is suited for simple computer-based studies.

EEG lab

Lab 2E is designed to alleviate electromagnetic interference by routing wiring away from the room and employing 12 V DC lighting.

Virtual reality lab

Lab 2F is a flexible room suitable for virtual reality set-ups. Base stations are placed in each corner of the room which allows for a quick set-up of virtual reality experiments.

Flexible labs and other rooms

Flexible labs

Lab 1F is a larger, flexible room which can be rearranged as needed. It is suitable for small workshops, virtual reality set-ups, teaching in smaller groups and the like.

Chairs and tables are available and the room features a movable 75" monitor and a projector.

Lab 2F is another smaller flexible room. It is a bit larger than lab 2A-2E and is also flexible for experiments that need more space.

Meeting room

The meeting room is primarily used for meetings in relation to the experiments or lab management.

The room is suitable for smaller groups and may be booked for experiments, if you coordinate this with lab managers.

Lab Kitchen

A kitchen with a fridge is available for experiments that involve food-stuff. Here it is possible to prepare and store food samples and the like.

