



Friedrich-Alexander-Universität
Erlangen-Nürnberg

FAUmentoring ARIADNE technat

Leitfaden für das Mentoring

Karriereförderung für Nachwuchs-
wissenschaftlerinnen und Studentinnen
an der Technischen und der
Naturwissenschaftlichen Fakultät



FAUmentoring
ARIADNE technat

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**FAU mentoring
ARIADNE technat**

<https://www.mentoring.fau.de/ariadnetechnat/>

FAUmentoring ARIADNEtechnat

Objective

Women continue to be under-represented in the higher hierarchical levels of academics. In technical and scientific disciplines, this is true already at the doctoral candidate level. Women have at least as much scientific potential and determination as their male colleagues.¹

Especially in STEM, disproportionately more women than men leave science. This is where effects set in “that make it systematically more difficult for women to reach top positions and to be at the top as a matter of course.”². For women, a critical phase for continuing their academic careers is the period during and after their doctorate. The “drop out” continues on the path to habilitation and during appointment procedures. There are several reasons for this so-called “leaky pipeline”. In addition to established structures in the scientific community, specialist cultural characteristics and personal and socio-cultural factors play a role. This also means that women are under-represented in formal and informal networks.

Since 2003 the FAU mentoringARIADNE*technat* aims at promoting young female scientists, to win them for science and thus to secure great potential for science. As an instrument for targeted promotion of young talent, mentoring aims to strengthen women's self-image as scientists and to motivate and encourage them to consistently pursue their scientific careers. Thus FAU makes an active contribution to significantly increasing the proportion of women in all areas of science, to achieving true equal opportunities and, last but not least, to scientific excellence.

Target groups

ARIADNE*technat* is directed at:

- **female students** with the aim of completing a master's degree or state examination who are aiming for further academic qualification (ARIADNE*technat* Master)
- **Doctoral candidates, Post-doctoral researchers and W1 professors,** (ARIADNE*technat* doc/postdoc)

from the Faculty of Natural Sciences and the Faculty of Engineering at FAU.

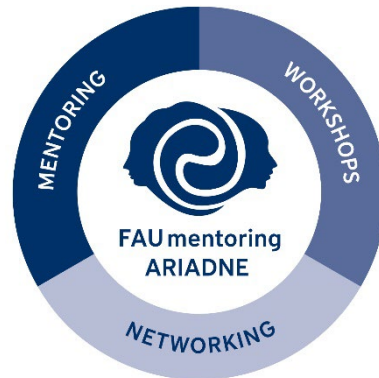
¹ *Development at FAU in all faculties:* <https://www.gender-und-diversity.fau.de/chancengleichheit/monitoring/>.

² *Beaufays, Sandra / Engels, Anita / Kahlert, Heike: Introduction: Simply great? In: Beaufays, Sandra / Engels, Anita / Kahlert, Heike (eds.): Simply great? New gender perspectives on careers in science. Frankfurt am Main 2012, pp. 7–22. Here p. 10.*

At the same time ARIADNE *technat* is directed at **Professors and research assistants** from both faculties, who want to act as a mentor in order to advise and support a young scientist by sharing their personal and academic experiences.

Program offerings & financing

ARIADNE *technat* provides young scientists with **individual, interdisciplinary mentoring advice by a person with career experience (mentor) to support them with their career planning in academics**. Topics covered are, for example, strategic questions relating to the academic qualification path and the practical implementation of career steps. In addition, very individual topics such as the compatibility of personal life with an academic career or questions about the current qualification phase can be the subject of regular discussions.



In addition to the one-to-one mentoring ARIADNE *technat* Mentees are offered a **Workshop program with professional trainers** with a focus on soft skills and personal skills development.

Regular network meetings offer mentees the opportunity to **expand their peer network**.

Since 2018 ARIADNE *technat* offers two **qualification-specific program lines**:

- **ARIADNE *technat* master** for students (duration: 9 months)
- **ARIADNE *technat* doc/postdoc+** for doctoral students, postdocs, habilitation candidates and W1 professors (duration: 18 months)

ARIADNE is part of the FAU's Target agreements to increase the proportion of women in science 2023-27, agreed upon by the faculties and the university management. The target agreements aim to contribute to increasing the proportion of female professorships in the long term. ARIADNE is financed through funds provided by the university management as part of the target agreements and is organized by the FAU Office for Gender and Diversity.

The concept of mentoring

The concept of mentoring owes its name to Greek mythology. Odysseus entrusted his friend Mentor with the upbringing of his son Telemachus when he went to fight in the Trojan War. Mentor became a role model, friend, advisor and protector for Telemachus.

In the 1970s, mentoring was rediscovered and reorganized in the USA as a personnel development tool for young talents. Today, mentoring in the academic sector is a particularly proven and effective instrument for promoting young talents.

Mentees benefit from the empowerment of their mentors and the peer group. The mentoring process supports personal development and sharpens the mentees' leadership and academic profiles. Mentees gain insight into structures, processes and informal rules within the science system.

Mentoring is not professional advice and cannot replace it!

Characteristics of a mentoring relationship

A mentoring relationship is a working relationship. It is a protected, open relationship based on personal contact, trust and mutual goodwill and respect.

A successful mentoring relationship relies on several factors:

[Voluntary participation](#)

The mentee and mentor enter into the mentoring relationship voluntarily and of their own accord.

[Independence](#)

There is no relationship of dependency and no managerial authority between mentee and mentor, i.e. no direct or indirect working relationship or supervision of a master's thesis, doctorate or habilitation.

[Confidentiality](#)

The mentoring discussions take place in a protected setting. Absolute **confidentiality of both parties** is a prerequisite for an open and trusting exchange. Specifically, this means that the mentor may only pass on information about the mentee with their explicit consent and vice versa. The principle of **confidentiality towards third parties also applies after the end of the program period.**

[Defined period of time](#)

The mentoring relationship exists for a defined period of time. It can be continued beyond this period by individual agreement.

Personal contact

A face-to-face exchange is particularly important at the beginning of the mentoring process. It can take place in a personal meeting or online.

Commitment

Appointments and agreements are reliably observed.

Expectations and agreements

Expectations and agreements about goals, rules for contact, feedback, etc. should be discussed between the mentee and mentor at the beginning of the mentoring relationship and fixed in writing in a mentoring agreement. A template for this agreement is available on StudOn.

ARIADNE-Mentoring

Interdisciplinary mentoring

ARIADNE offers **interdisciplinary mentoring** as a supplement to scientific specialist support. It is **not** about expert mentorship.

Quality assurance

As a member of the nationwide professional association *Forum Mentoring e.V.* FAU's ARIADNE program has committed itself to complying with **quality standards for mentoring programs** required at universities set out in this framework³.

Matching of mentoring tandems

In order to exclude a hierarchical relationship, role conflicts or other reasons for bias between the mentee and the mentor, ARIADNE mentoring approach is **interdisciplinary**. This means that the mentor does not come from the same field as the mentee. However, the matching is usually carried out within the faculty, as a certain familiarity with the specialist culture and specific qualification paths significantly increases the impact for the mentee.

The most important criterion for matching is that the mentor, thanks to their wealth of experience, can advise the mentee on the majority of the topics she asked for.

³ *Forum Mentoring e.V.: Mentoring with quality. Quality standards for mentoring in science (2014): <https://forum-mentoring.de/mentoring/qualitaetsstandards/>*

Range of topics

Mentoring is unstructured in a positive sense. There are no guidelines concerning the content of the conversations set by the coordination. It is up to the mentee and the mentor to define their topics. The content should be related to the university work context, though. Specific challenges for female scientists in the context of role attributions and role understanding, self-confidence and self-assurance and positioning in negotiations are possible cross-sectional issues.

Further topics for mentoring can include:

- Strategic career planning
- Clarification of career goals
- Academic structures and processes
- Profile building in science
- Building scientific networks
- Publication strategies
- Career entry and application
- Habilitation process & appointment procedures
- Planning stays abroad
- Research funding
- Establishment of scientific working groups
- Work-life balance
- Self-presentation and working techniques
- Leadership and conflict management

Participation as a mentee

Your role as a mentee

As a mentee, you should be open to new perspectives and willing to accept constructive criticism. The mentoring focuses on your learning process as a mentee.

You will take on the active role and process responsibility in the mentoring tandem.

The mentoring tandem: The mentee is in the driver seat!



Perfect!



Not so



Reach out to the coordinator!

Your benefit

One-to-one mentoring offers you the opportunity to gain **individual support**. As a mentee, depending on your needs, you will receive:

- Suggestions for targeted career planning in science and a deeper insight into university structures and rules of the game
- Factual knowledge relevant for your career
- Information and hints on building your profile, on requirements in the academic environment and for applications and appointments.
- Individual feedback from the mentor to better identify your potential, to analyze challenges as a young female scientist and to develop possible solutions.

During workshops by professional trainers, you can sharpen your profile as a scientist and further develop interdisciplinary and personal skills that are important for your career. The workshops specifically address challenges for female scientists.

In ARIADNE network meetings you can expand **your peer network**.

After participating in the mentoring program, each mentee receives a certificate of participation, which provides an overview of the events attended by the mentee.

Your expectations regarding mentoring

Exchanging ideas with a mentor offers many opportunities. However, you should check your expectations: **Mentoring cannot and does not want to provide you with ready-made solutions, but rather supports you in discovering and developing your own**

solutions. Therefore, you need to be aware of the limitations of mentoring. Mentors can make suggestions, develop options and help you make decisions - but their role is not to take decisions on your behalf.

Participation as a mentor

Your role as a mentor

Mentors are role models and companions. They share experiences and give feedback, advice and constructive criticism.

Mentoring means advice as help for self-help. It is not about taking decisions for mentees, but rather about supporting decisions through targeted questioning (clarification of preferences, easy vs. difficult paths to the goal, clarification of available options...). **The mentee should be empowered to help herself!**

Your tasks

As a mentor you share **informal knowledge** and pass on your experiences to your mentee and support her in their personal and academic development.

Mentoring requires consulting skills, i.e. knowledge of learning and development processes, of interaction and communication as well as of conversation management methods. It is crucial that the mentor does not feel responsible for the mentee's decisions, does not present ready-made solutions or believes that they have to convince the mentee of a particular decision or behavior. The freedom and responsibility to take decisions in the advisory process lies with the young scientist or student seeking advice.

Mentors **support the formulation and development of realistic career goals.** Together with the mentee, they determine milestones and steps and point out possible consequences, risks or potential for conflicts at an early stage.

One of the most important impacts of mentoring is that mentees gain greater awareness of the connections between career development and networking and understand that a meaningful engagement in **networking pays off.** The mentors support the mentees in making relevant professional contacts by explaining their own networking strategies or pointing out important events or platforms.

The guidance and support provided by the mentor can consist of the following elements:

- Sharing of knowledge and contacts
- Sharing own experiences and passing on "insider knowledge"
- Tips for achieving professional goals
- Support in finding information
- Encouraging and empowering, including concerning gender-specific challenges

- Giving and receiving feedback
- Analyzing and/or developing options
- Suggesting options for decision-making (mentee decides)

Your benefits

As a mentor, you can play an active role in supporting young scientists. At the same time, as a mentor, you

- get new impulses for your work.
- reflect on your own career.
- strengthen your consulting skills.
- expand your own network.
- gain insights into the situation and challenges of young female scientists.

At the beginning of the program, mentors are given the opportunity to participate in an **online workshop for mentors** developed specifically for ARIADNE **to** prepare for their role.

Upon request, the mentors receive a certificate for their ARIADNE mentorship.

The event program

Introductory event for mentees

The **Introductory event for mentees** takes place shortly before or after the kick-off. **Participation is mandatory for mentees!**

The workshop will prepare participants for their role as mentees. It creates the basics for a successful design of the mentoring relationship, explains limitations and discusses personal expectations and goals for mentoring.

We recommend to plan the first mentoring conversation only after the introductory event.

The kick-off event

The kick-off event marks the official start of the program and offers the opportunity to get to know each other more in depth among mentoring tandems and peer mentees.

Workshops for mentees

The mentoring is accompanied by a tailored workshop program. The focus is on soft skills, personal development and positioning as a female scientist in a male-dominated environment.

Networking meetings

ARIADNE offers a platform for building a scientific peer network. In addition to organized network meetings, the mentees are supported in organizing network activities on their own initiative. In addition to meetings with the mentees from your own program line, there are also formats that enable exchanges with mentees from other ARIADNE program lines or with ARIADNE alumnae.

Closing event

This is the moment of bidding farewell to mentees and mentors from the mentoring relationship and the program. The mentoring tandems are free to continue the mentoring partnership even after the program ends.

Recommendations for organization and design
the mentoring discussions

The preparation: The introductory conversation

In the matching phase before the official start of the program, an introductory meeting takes place between the mentee and the potential mentor. The aim is to exchange mutual expectations and to test the “chemistry” between both parties. Sympathy is of central importance in the mentoring relationship. Based on the introductory meeting, both sides decide whether they would like to enter into a mentoring relationship and to start the program together as a tandem.

It is the task of the mentees to contact their potential mentor promptly after the matching and to arrange an appointment for the introductory meeting. A mentoring partnership only starts when both parties have given their consent after the introductory meeting.

Frequency, length and organization of meetings

The frequency and length of the meetings are agreed upon individually by the mentoring tandems. They can take place regularly (e.g. at a fixed date once a month) or depending on needs. **60 - 120 minute meetings approximately every six weeks have proven their worth.**

At the beginning of the mentoring relationship more frequent meetings are recommended. Since mentoring thrives on personal learning processes, there should be enough time between two meetings to enable new learning experiences. When important events occur, it should be possible to schedule interim meetings at short notice.

It is up to the mentee to initiate meetings by requesting an appointment with the mentor. **To allow preparation, the mentee should name the topics she would like to address.**

It is up to the tandems as well to choose a location for the meetings be it in the mentor's office or in a coffee shop. Personal meetings can be supplemented by contacts via video conference, telephone, email, etc. It is advisable to discuss in advance which contact methods and times are acceptable to and preferred by both sides.

First mentoring conversation and general conditions

The first mentoring conversation after the introductory meeting should take place after the introductory event for the mentees. It serves to set the goals and some rules for shaping the mentoring relationship.

It is advisable to jointly work on a **Mentoring agreement**. A template is available for download at StudOn which provides you with suggestions on how to best structure the

mentoring relationship and how to clarify mutual expectations and goals. **The document is confidential and remains solely with the mentoring tandem** – please do not forward it to the program coordination!

The objective of the first mentoring meeting should be to get to know each other and to build trust. Agreeing on confidentiality is a priority. Thus **it is particularly important to allow enough time for this first conversation.**

We recommend that you share the following information at the first meeting:

- Topics, concerns and wishes that are particularly important to both of you. What are your goals and expectations as a mentee for the duration of your relationship? As a mentor, what are your expectations towards the mentee?
- How do you ensure confidentiality? Agree on rules about how confidentiality should be handled.
- No gos: What do you definitely not want to experience during the mentoring process?
- How do you prepare discussions and how do you follow-up?
- Criteria for success: How do you determine the success of our collaboration in tandem? Where does the mentee want to be at the end of the program?

The follow-up conversations

Mentoring is unstructured in a positive sense and does not determine the content of the conversation. The topics of discussion depend on the mentee's wishes and needs, the mentor's background of experience and the relationship of confidence between them.

After the mentoring meetings, these questions can be helpful for evaluating the discussions from the mentee's perspective:

- What topics did we discuss today?
- What solutions and strategies have we developed?
- What are my tasks until the next meeting?
- What is the topic of the next meeting?

Templates for **Preparation and follow-up of the discussions** are available on StudOn.

The closing meeting

Your mentoring relationship formally ends after the duration of the program. We recommend to reflect on your collaboration and possibly to develop future perspectives during a closing meeting with the mentor. You may define further goals and decide on

whether and to what extent you would like to stay in touch after the official mentoring ends.

Contents of the closing meeting can be:

- What goals were set at the beginning of the mentoring relationship? Which ones have been achieved? Which ones are still open? What else is possible?
- What were essential and valuable experiences and learnings for both parties?
- What did the parties appreciate in each other?
- In retrospect, what would the tandem have done differently? What is regrettable?
- Is there a desire / the possibility to stay in contact after the program ends?

Success factors in the mentoring process

<u>For the mentee</u>	<u>For the mentor</u>
✓ Proactive design of the mentoring process	✓ Openness
✓ Investment of time and structured planning	✓ Taking enough time for conversations
✓ Preparation and follow-up of conversations	✓ Avoiding disruptions during conversations
✓ Reliability	✓ Reliability
✓ Confidentiality/Discretion	✓ Confidentiality/Discretion
✓ Being able to listen	✓ Being able to listen
✓ Accepting feedback	✓ Giving honest and constructive feedback
✓ Giving feedback	✓ Accepting feedback
✓ Continuous reflection	✓ Taking problems seriously
✓ Willingness for self-criticism	✓ Asking questions
✓ Developing objectives	✓ Showing alternatives
✓ Ambition to achieve the set goals	✓ Helping with decision making
✓ Patience	✓ Patience
✓ Appreciation	✓ Appreciation
✓ Assumption of process responsibility	

Barriers to the mentoring process

<u>For the mentee</u>	<u>For the mentor</u>
<input type="checkbox"/> Sense of entitlement	<input type="checkbox"/> Comparison of the mentee with previous mentees
	<input type="checkbox"/> Too high expectations towards the mentee
	<input type="checkbox"/> Accusations
<input type="checkbox"/> Expecting ready-made solutions	<input type="checkbox"/> Taking decisions on behalf of the mentee
<input type="checkbox"/> Breach of confidentiality	<input type="checkbox"/> Breach of confidentiality
<input type="checkbox"/> Lack of distance, topics become too private	<input type="checkbox"/> Lack of distance, topics become too private
<input type="checkbox"/> Confusion between friendship and mentoring relationship	<input type="checkbox"/> Conflicts of interest

If you have any problems in the mentoring relationship that you cannot solve in your tandem, please contact the program coordinator without delay. If changes occur and you cannot or do not want to take advantage of or offer mentoring any longer, please discuss terminating the mentoring agreement between the both of you and with the program coordinator.

Childcare

If required, we can offer child care for the duration of an event organized by ARIADNE *technat* through the FAU family service. It normally takes place at the mentee's home. If there is sufficient space, support can also take place at the event location.

If required, please reach out to the program coordination directly after receiving the event invitation. For organizational reasons, a request for child care needs to be made at least three weeks before the event.

Literature references and further links

Scientific careers in general

Müller, Mirjam: Promotion – Postdoc – Professur. Karriereplanung in der Wissenschaft. Frankfurt am Main 2014.

Kahlert, Heike: Riskante Karrieren. Wissenschaftlicher Nachwuchs im Spiegel der Forschung. Opladen, Berlin, Toronto 2013.

Beaufays, Sandra / Engels, Anita / Kahlert, Heike (Hrsg.): Einfach Spitze? Neue Geschlechterperspektiven auf Karrieren in der Wissenschaft. Frankfurt am Main 2012.

Färber, Christine / Riedler, Ute: Black Box Berufung. Strategien auf dem Weg zur Professur. Frankfurt am Main 2011.

Science careers Natural sciences

Bodewits, Karin / Hauk, Andrea / Gramlich, Philipp: Karriereführer für Naturwissenschaftlerinnen. Erfolgreich im Berufsleben. Weinheim 2016.

Pascher, Ute / Stein, Petra (Hrsg.): Akademische Karrieren von Naturwissenschaftlerinnen gestern und heute. Wiesbaden 2013.

Stöger, Heidrun / Ziegler, Albert / Heilemann, Michael (Hrsg.): Mädchen und Frauen in MINT. Bedingungen von Geschlechtsunterschieden und Inventionmöglichkeiten. Berlin 2012.

Dautzenberg, Kirsti / Fay, Doris / Graf, Patricia (Hrsg.): Frauen in den Naturwissenschaften. Ansprüche und Widersprüche. Wiesbaden 2011.

Mentoring

Haghanipour, Bahar: Mentoring als gendergerechte Personalentwicklung. Wirksamkeit und Grenzen eines Programms in den Ingenieurwissenschaften. Wiesbaden 2013.

Stöger, Heidrun / Ziegler, Albert / Schimke, Diana (Hrsg.): Mentoring: Theoretische Hintergründe, empirische Befunde und praktische Anwendungen. Lengerich 2009.

Links

Mentoring-Programm ARIADNE *TechNat* at FAU:

<https://www.mentoring.fau.de/ariadnetechnat/>

Forum Mentoring e.V. – nationwide umbrella organization for mentoring programs at universities: www.forum-mentoring.de

Competence Center for Women in Science and Research: www.gesis.org

