**Master’s degree as a building block for your future**

Do not let the working life catch you by a surprise –

Get ready for working life during your studies!

A Guidebook for students

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Foreword

Studying at university might sometimes feel very theoretical and disconnected from the working life. At first glance the learning outcomes for courses and required skills listings in job advertisements look to be from different planets. Do not worry, you probably are the “dynamic and results-oriented team player” the company is looking for even though none of your professors call you that.

The aim of this guidebook is to help you, a student, to realize how a master’s degree and the master level studies are preparing you (sometimes even unconsciously) for your future working life.

This guide was written as a part of national “Working life pedagogy” -project during 2019 as a cooperation between University of Oulu and Tampere University. For more working life pedagogy related results and information see https://www.tyopeda.fi/eng.
Master’s degree as a path to working life

Master’s studies can boost your employability

Master’s studies will most likely affect your employability. Employability is known as “capability to move self-sufficiently within the labor market to realize potential through sustainable employment”. Employability consists of three “phases”:

1) Ability to get initially employed,
2) Ability to maintain employment and
3) Ability to obtain new employment.

Hence, employability can be considered as a unit of achievements, skills, competences, understanding and personal characteristics that enable graduates to get employment and stay in the working life. During your studies you will learn, among other skills, analytical and critical thinking, problem solving and independent thinking; skills that are highly sought after in the current working environment in both academic and industrial fields. These so-called general working life skills will help you to land a job and perform well in it.

But I can just complete courses, why should I care about employability during my studies?

Decisions and actions taken during your studies can play a major role in your hunt for your dream job after graduation. Focusing your time and energy mainly on your studies and graduating in the recommended schedule is appealing to recruiters. To be able to do this you need to carefully plan your studies. Creating your personal study plan (PSP) as early as possible together with an academic advisor should be your main priority when starting your studies. Also, remember to regularly re-evaluate your course choices and make changes when necessary. When planning your studies, try to avoid being too one sided. Instead of selecting all your optional studies from the same field as your major, consider taking minor studies from other fields too to have a broader understanding of things.

During your studies, also consider taking part in activities organized by your local student guilds and societies. Maybe even acting in responsible positions or as a volunteer in different events. This tells your future employers that you are active, spontaneous and able to handle responsibilities. Being involved in matters outside of the lecture rooms also means that you start to create your own network. Remember that the people you study with might end up being your contacts in other companies or even your team members later in working life.
You should start thinking about your thesis topic early in advance, too. Keep your eyes open and do not hesitate to propose topics that are of interest to you to your professors and working life representatives that you meet. Including optional (in case your degree program does not contain mandatory) practical training courses in your PSP are a really good way of getting good contacts from research groups or companies and can open doors for thesis and career path opportunities in the future.

The single most important thing about your personal employability is your own awareness and attitude towards it. If you do not reflect on your employability during your studies and do not seek ways of advertising your employability to others, then most certainly the recruiters will not realize your potential value for the working life.

Useful links and further reading

On employability, thoughts on student employability by Lee Harvey.

What is employability? by University of Derby.

How do I develop my employability? by University of Derby.
What is a project and why should you care?

To be successful in your master’s degree process, you should know how to manage your studies as a project. Project is an activity that has a start and end date; it is unique and brings about change. It has some unknown elements and because of these unknown elements, a project always has some risks. The aim of project is to solve a problem. For this purpose, a project should be managed properly. The application of knowledge, skills, tools, and techniques, to project activities to meet project requirements.

Each project has a life cycle. To develop this cycle, 4-Ds described below are recommended:

- **Define the project:** this is the time when it is clarified what the project is about, its reason for existence and the intentions that it intends to progress. In this phase the possibilities are explored, and the alternatives to the problem presented are considered.

- **Design the project process:** the second D shows how the needs will be developed, evaluate this to determine the optimum process for the task and minimize risk.

- **Deliver the project (do it!):** carry out the project in line with the models or plans generated above.

- **Develop the process:** improve the products and processes in the light of the experience gained from the project.

The key issues and questions of each D is depicted in the figure below. Each phase represents a chain of activities.
You have a wonderful opportunity to practice this kind of project-oriented approach during your studies and to even use this approach to complete individual courses. Doing this prepares you well for today’s working life where majority of work is carried out in projects. By doing this you will also be more than ready to carry out a successful master’s thesis project that awaits you in the end of your studies.

**Master’s thesis – The most important milestone in your master’s project**

When the thesis work is not done for a company and the contents are almost purely theoretical it is hard to see the connection with working life and your thesis and the connection can be easily neglected. In cases like these try to think your thesis as a greeting card for the working life. You have an amazing opportunity to show the world how well you master the topic of your thesis. Logical structure and fluent text with clear images and easily understandable tables lets you highlight your
written communication skills. There is also room in the discussion section to ponder about the possible use cases and applications of the contents of your work in the industry.

Since the master’s thesis is one fourth of the study credits in your degree and a key piece of content in your professional portfolio you should start thinking about the thesis and getting prepared for it well in advance. Do not wait until the last moment when the rest of your studies are completed to start to think about possible topics for your thesis. Instead, starting from day one while completing your courses be curious and search for additional information about topics you find interesting. Ask questions from your professors and working life representatives when you meet them. Dream what could be improved or done better and do not hesitate to prose your ideas. Also, in many fields the companies advertise thesis worker positions through different employment services sites. Start scanning those as soon as possible to see what kind of opportunities are available and to learn what are some common requirements for typical thesis worker position.

Useful links and further reading

What is a Dissertation (thesis)?

Dissertation Tips from the Dissertation Experts
Do not just pass courses — collect competences! Do it for you!

Competence is defined as an amalgamation of knowledge, skill, ability, attitude, values, trait, motives, and self-concept. According to some surveys, the type of competencies that employees need for specific occupation for our contemporary world are following:

1. Communication in the mother tongue.
2. Communication in foreign languages.
3. Mathematical competence and basic competences in science and technology.
4. Digital competence.
5. Learning to learn.
7. Cultural awareness and expression.
8. Sense of initiative and entrepreneurship.

European union defines eight key competences which help to define an individual’s knowledge base, attitudes and aptitudes. These competencies are:

1. Communication in the mother tongue.
2. Communication in foreign languages.
3. Mathematical competence and basic competences in science and technology.
4. Digital competence.
5. Learning to learn.
7. Cultural awareness and expression.
8. Sense of initiative and entrepreneurship.
Useful links and further reading

Key competencies in digital age by Deloitte

Digital skills in the EU labor market

Summary of recommendation on key competencies for life-long learning by the European Union

More detailed explanation of the key competencies

It is very important that you know how to assess our competencies and that you are aware of your weaknesses. There are some practical tools that help you to evaluate your competencies. In below links you can find some information and tools for self-assessment.

The learn to learn competency assessment questionnaire

Self-reflection tool by CASEL
Working life skills

Carrying out your studies successfully requires basically the same set of skills that the working life expects you to have after graduation. This makes master’s degree studies a perfect training ground for you to:

1. Identify different skills that you carry with you from your studies to working life and to improve these skills.
2. Perceive your personal strengths and weaknesses; how to advertise yourself and how to improve as a continuous learner and an employee.

Based on “The Future of Jobs Report” by World Economic Forum in 2018 and “Know-how 2035” report by Finnish National Agency for Education in 2019 the most important generic working life skills for the future are:

- Self-leadership and emotional intelligence
- Ethicality
- Social interaction and communication
- Ability to work in multicultural environments
- Analytical and critical thinking
- Creativity and complex problem solving
- Learning strategies and active continuous learning
- Capability to manage large entities
- System level analysis and evaluation
- Data management and analysis
- Understanding sustainable development
Starting from top and progressing down we can see a pattern forming. In the center of everything is you. Your ability to lead yourself to perform at your best level. You need to know how to make ethically sound decisions and respect diversity in your decisions. When you know how to work with yourself then you need to figure out how to act as a part of a group (your team in work) or a community (personnel of the company you work in). When you carry out your daily tasks and duties intended for people with degree in higher education you are always required to think analytically and critically. You often encounter complex problems that require creative solutions to be able to solve the problems in a manner that is also profitable for your employer while not harming the environment. In many cases you need to base your decisions on a large amount of data. You also need to understand the effects of your decisions on a larger scale and as a part of a larger entity. While doing all of this you also need to constantly develop yourself further and stay up to date with the development and newest innovations in your field.

This may sound intimidating at first, but higher education and master’s degree studies are designed to prepare you for this kind of working life after graduation. All you need to do is to be aware of these different kinds of working life skills and how you can encounter them during your studies and reflect your personal development in them.
Let us look at some concrete examples how the items on the skills list are linked to university studies:

❖ Self-leadership and emotional intelligence, learning strategies and active continuous learning
  ➢ One definition for self-leadership is “The practice of intentionally influencing your thinking, feeling and behaviors to achieve your objects”, Bryant & Kazar (2012). Main part of influencing your behavior during your studies, and in the working life, is your capability to manage the use of your time. This should be the starting point on your journey to complete your master’s studies and to become a working life professional.
  To be successful in studies you should:
    ▪ 1) Learn how to make plans for longer periods of time (e.g. a personal study plan for your master’s degree, complete project in working life).
    ▪ 2) Learn how to make plans for shorter periods of time (e.g. for one academic term or period, project milestones in working life).
    ▪ 3) Learn how to make realistic weekly calendars with time-use plans for multiple tasks (e.g. course lectures and assignments, project tasks in working life).
  ➢ When you can plan and execute the use of your time it is so much easier for you to concentrate on the actual contents of your studies and you don’t need to spend your time worrying about how you will be able to do all the required tasks.

❖ Ethicality
  ➢ You need to follow the rules set by academic society and to avoid for example plagiarism.

❖ Social interaction and communication
  ➢ Your studies will most likely contain group work projects and exercises where you learn how to effectively act as a part of a group about different types of roles that a group or a project might have.

❖ Ability to work in multicultural environments
  ➢ Many degree programs are international or share courses with international programs. This is an opportunity to learn different cultural nuances during studies.

❖ Analytical and critical thinking; creativity and complex problem solving; capability to manage large entities; system level analysis and evaluation; data management and analysis
Especially courses with large scale, independent project work require you to analyze and critically process information to create unique solutions for complex problems. The most important one in this category is your master’s thesis.

Understanding sustainable development
- See section about sustainable development below.

While carrying out your studies keep this list in mind and regularly compare the requirements of tasks and assignments on your courses to these skills. Do you see any similarities? Have you noticed any improvement in yourself during your studies? It is also very important to constantly keep track of your improvement e.g. by updating your CV so you will be able describe your strengths and weaknesses more easily in job interviews. Writing, drawing and other ways of visualizing your personal development also creates a positive sense of accomplishment.
Toward Sustainable Development Goals in future working life

Sustainable development means “continued progress without destroying and depleting”. The rationale behind this definition is that we cannot continue using the current level of resources as this will not leave enough for future generations. The basic percepts of sustainable development are:

1. Living on earth has environmental limits.
2. Humans have the responsibility of preventing or cleaning up pollution.
3. The economy, environment and society are interconnected and interdependent.

Since we have so many environmental, social and economic problems in our common world, UN and its members set some plans to resolve some of the urgent problem the world is facing. These set of plans call Sustainable Development Goals (SDGs).

Finland as one of the advanced economies in the world, aims to become a sustainable development leader because it has excellent potential for achieving the UN sustainable development goals for 2030. When you are doing your master program and when you want to apply for a job try to think about:

- How can your field of studies contribute to sustainable development goals?
- How your future responsibilities in a workplace can cover sustainable development goals?
- Among 17 SDGs, which ones are more related to your studies and future work?
- How can you add something to SDGs (either by your studies or work)?
Will you be literate enough after your master’s degree?

In today’s world, you need many competencies to be successful in your future working life. To know how competencies can influence your working life, you should know if you are literate enough or not. For this purpose, we provide you different type of literacy for 21st century. In addition, it is recommended that you understand how different kinds of approaches to the literacy in different educational programs could prepare you better for your working life while increasing your competencies.

Up to the late nineteenth century, literacy generally refers to reading and writing effectively in a variety of contexts. However, in the 21st century, the definition of literacy has increasingly reflected on the dynamic capabilities ranging in different areas, including:

- Literacy as an autonomous set of skills.
- Literacy as applied, practiced and situated.
- Literacy as a learning process.
- Literacy as text.

**Literacy as skills:**

- Reading, writing and oral skills: The most common understanding of literacy is that it is a set of tangible skills – particularly the cognitive skills of reading and writing – that are independent of the context in which they are acquired and the background of the person who acquires them.
- Numeracy skills: Numeracy is most often assumed to depend upon a solid mathematical education and innumeracy to be the result of poor schooling.
- Skills enabling access to knowledge and information: such as ‘information literacy’, ‘visual literacy’, ‘media literacy’ and ‘scientific literacy’. The meaning of these concepts tends to be diverse and shifting, ranging from the view of literacy as a set of largely technical skills (the OECD perspective) to the idea that these skills should be applied in critical ways to examine one’s surroundings (e.g. the workplace and the media) and push for social change (Hull, 2003).
Literacy as applied, practiced and situated:

Application the above skills in ‘relevant’ way can be considered in this kind of literacy.

- this kind of literacy is very related to master thesis because it shows how student can enhance their working life by their knowledge that they acquired during the master program.

Literacy as a learning process:

It means literacy as an active and broad-based learning process, rather than as a product of a more limited and focused educational intervention.

Literacy as text:

This approach pays attention to the analysis of discrete passages of text, referred to by sociolinguists as ‘discourse’.

In addition to the above definitions, in 1996, New London Group coined the term **multiliteracies** to describe a more contemporary view of literacy that reflected multiple communication forms and a context of cultural and linguistic diversity within a globalized society. Thus, multiliteracies was defined as the multiple ways of communicating and making meaning, including such modes as visual, audio, spatial, behavioral, and gestural.

Students can integrate these skills into their master program by understanding how knowledge is gained, how this knowledge can be integrated into their working life, how a multicultural environment can enhance their communication forms and how team working can create an aggregate literacy for them.

Useful links and further reading

Future of Jobs 2018 report

SDG Watch Finland

SGDs in Finland
Networking as an entryway to your first working life experience

If you have enough competency and are literate enough for your job market, then it is important to have a network for finding a job. According to The Finnish Innovation Fund Sitra 39% of the jobs go through peoples’ personal networks. Lack of the right network is one of the obstacles for finding a job in Finland, particularly for international students which is discussed in some other studies (Shumilova et al. 2012:70).

Networking is a main factor for finding a job in Finnish labor market, especially for hidden vacancies. Hidden vacancies are possible working opportunities that are not publicly advertised. Instead, companies are usually trying to fill them using its own networks. So, using the network of fellow students, friends, acquaintances, and ex-colleagues are important for hidden vacancies. Some other channels such as hobbies and extracurricular activities will let you easily connect to Finnish networks. To network with possible employers you can:

1. Gain orientation about the Finnish labor market.
2. Collect information on employers’ needs and available jobs through multiple channels.
3. Contact employers through job fairs, trade fairs, phone calls etc.
4. Create your own networks: by membership in professional associations, participating in events, and otherwise actively building up especially social media channels, e.g. LinkedIn

Useful links and further reading

Erasmus student network in Finland
Talent, competencies and weaknesses

Today’s labor market needs people with more talents and competencies. In fact, competent and talented employees are a key factor in business success. Before presenting your talent and competencies, think about these questions:

- Do you really manage/know your talent?
- Do you have enough competence for your work?
- Do you know how to present your talent?

Talent is known as an innate capability, aptitude, natural endowment, genius and gift. If you want to use your talent, you must have enough competence. As an example, a person can be very talented in painting and enjoys playing with colors. However, this person may not have the right attitude and self-confidence towards painting. Therefore, in this case a person may be talented but not competent. A person who is competent will be more able to identify and develop his or her talent.

During you master program, you can collect competencies to know your talent better than before. If you manage your talent by acquiring competency, then you will be able to know your strengths and weaknesses. It is a kind of self-assessment that enables you to evaluate your own performance and abilities.

Presenting your competencies
A common way of presenting your talent and competencies is Curriculum Vitae or CV for short. CV is a brief written summary of your past employment history, education, competencies and your strengths. You should start building and expanding your CV during your studies. After all, presenting your competencies is just another skill that takes time to master and requires practice. Every time you complete a course or take part in extracurricular activities think if there is something that you can add and highlight in your CV. You should have one general CV that contains all the things that you think important and use it as a base when you create tailored CVs to apply for a specific job. Try to keep the CV that you attach to your applications maximum two pages long. If you identify your talent and highlight it, you can write your CV as a talent-based resume. Remember that talents are natural abilities and skills, so present your talents and competencies in your CV as simple and clear as possible.

Useful links and further reading
TEK CV tips and instructions.
TEK active verbs to describe your competencies with concrete examples.
To lead a joyful life, you need to manage your happiness. Happiness includes all shades of feelings, emotions, and states of mind. Happiness in some literatures is the same as satisfaction, well-being, and pleasure. Happiness is not a capricious outcome of destiny or fortune, like winning the lottery, but is the result of how our mind operates in making decisions. It is important that you know happier life is a choice, something that is in your hands. In your personal life, think which factors are important to you. Set your goals and be proactive toward these goals. Remember eating right and exercising is not just a slogan if you want good health in your life. Having a plan for a healthier lifestyle, making choices consistent with your plan, and monitoring your progress are essential for you. By creating such a kind of habit in your life, you will be on the road to a healthier life. A similar game plan can be devised to achieve the ultimate objective: happiness.

During your master studies, you can have a joyful life if you manage your time and be prepared for unexpected issues in your studies. For this reason, it is recommended to be a multi-dimensional student while increasing your self-efficacy. Self-efficacy has a considerable impact on outcome of expectations. If you believe strongly that a set of decisions and actions will be enough to lead to a desired result, you will have a strong outcome expectation. In the other hand, if you are doubtful of your ability to do that set of decisions and actions, you will have low self-efficacy. Hence,
if you believe that you will have a real set of actions for managing your time, courses and the process of writing your thesis, then you are expected to finalize your master program in time, and it will lead to happiness in your life.
Master’s degree and working life? – The summary

The single most important thing during your studies from the working life perspective is surprisingly the same than from learning perspective: how aware and active you are. You as the student are the main responsible person about your own learning. Similarly, it is strictly your own responsibility to form an image of yourself as an independent professional in your field. This does not happen automatically by itself and you need to be aware of different aspects and expectations of working life.

Luckily (or is it coincidence after all?), university studies are designed to teach you a broad array of working life relevant skills while giving you a sound theoretical base of your chosen field. It is very easy to concentrate solely on the substance and theoretical side of things and to forget how much you learn (or at least have a chance to learn if you are attentive and active) working life relevant skills and attitudes during your studies (see table below).

<table>
<thead>
<tr>
<th>What you (should) do during your studies</th>
<th>Which working life skills it (mainly) improves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make plans (create PSP, choose minor studies etc.)</td>
<td>Self-leadership, capability to manage large entities</td>
</tr>
<tr>
<td>Create and maintain timetable</td>
<td>Self-leadership</td>
</tr>
<tr>
<td>Study on courses</td>
<td>Learning strategies and active continuous learning, ethicality, analytical and critical thinking</td>
</tr>
<tr>
<td>Work in a group</td>
<td>Social interaction and communication, ability to work in multicultural environments</td>
</tr>
<tr>
<td>Complete advanced project course(s)</td>
<td>Analytical and critical thinking, creativity and complex problem solving</td>
</tr>
<tr>
<td>Write your thesis</td>
<td>Self-leadership and emotional intelligence, ethicality, analytical and critical thinking, creativity and complex problem solving, data management and analysis, capability to manage large entities</td>
</tr>
</tbody>
</table>
List of references


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Education for All global Monitoring Report, Unesco, 2006


