

Miniproject Report
Winter semester 2019/20

Miniproject title

This miniproject is in partial fulfilment (10 ECTS) of the M4 Module in the focal subject "Computational Material Science and Process Simulation"

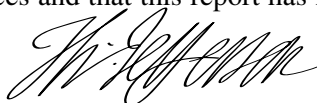
Student's Name	Surname, Name
Matriculation Number	Matrikel number
Senior Supervisor	Specify supervisor
Direct Supervisor (where applicable)	
Institute where miniproject was carried out	LFG

Abstract

Enter abstract here – max 250 words.

I hereby declare that this project report is my own work, that I have only made use of the cited and/or acknowledged documents/resources and that this report has not been previously submitted as academic coursework elsewhere.

Erlangen, December 24, 2018



City, Date	Signature
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Grading Sheet

This miniproject is in partial fulfilment (10 ECTS) of the M4 Module in the focal subject "Computational Material Science and Process Simulation"

Student's Name	Surname, Name
Matriculation Number	Matrikel number
Grade awarded	
Comments	

Note to grader: Please fill in and sign this form and return by mail or electronically to Dagmar Senft (MAP Office or dagmar.senft@fau.de) within 1 month after the submission.

City, Date	Signature
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1 Introduction

Use the introduction section to introduce the problem to be tackled to a reader, who you can assume is trained in the field though may not be from the exact specific research direction of the project. Make sensible use of the associated literature (primary and secondary articles) to demonstrate the ground-work/importance of the problem at hand.

To adjust this template please see comments in the *main.tex* file. To provide citations use `\cite{name of the reference in the literature.bib file}`. For example `\cite{vogelpaper}` gives¹. To provide citations with the author name before the number use `\citet{...}` instead of `\cite{...}` — In the study of `\citet{boccaccinipaper}` Boccaccini et al.²...

The cited sources are then placed in the bibliography at the end of the report automatically in the ACS style. You do not have to worry about adjusting how the references look provided you have correctly included all the required information in the *literature.bib* file. Take a look at the file to get a better understanding of how it works.

2 Theory

This optional section should be used to introduce any important theoretical framework for your project e.g. important textbook equations or recently developed analytical approaches. This section may not be necessary for experimental miniprojects.

It is a good style to create a separate file for every section of your report and then include the sections using `\input{section name}` command. This will allow to easily search specific parts of your report.

3 Experimental Methods

This section should be used to introduce the experimental approaches used. If you carried out synthetic work this should be described first, along with the materials which you used (and their sources). Following that, you should state the characterisation methods used. Feel free to divide up with sub sections like this:

3.1 Materials (this is Heading 2 in the style settings)

Or, if you think it is really necessary even this:

3.1.1 Chemicals (this is Heading 3 in the style settings)

4 Results and Discussion

Depending on your topic you may wish to separate this into two sections.

Here you will need to include figures and tables. Please reference the figures in the text like this: The **Figure 1** demonstrates a schematic overview of MAP Programme Structure. Subsequent references to the same figure can be abbreviated and should not be in bold (i.e. Fig. 1).

Tables should be referenced in the same way as figures (though Table should always be written out in full). The table caption should be placed above the table.

To use pictures in \LaTeX you should first save your images to the folder *images/*. If you want to use other directories, specify them in the *main.tex* file in the `\graphicspath{...}`.

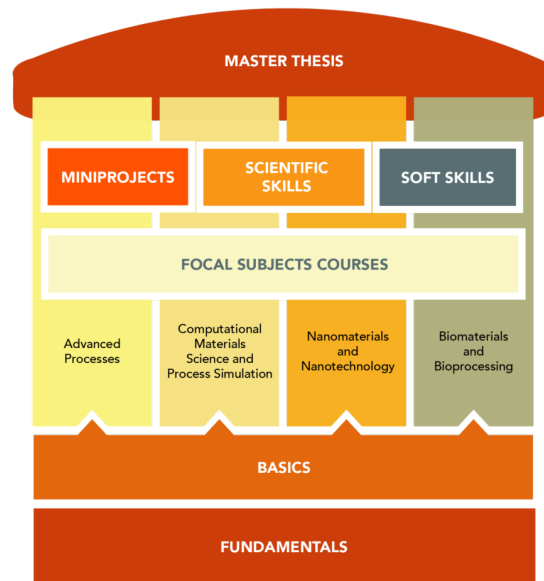


Figure 1: MAP program structure³

You can easily create images and graphs with tikz. For example if you have the experimental data points don't hurry to create excel diagrams. Check out how the package pgfplots can be used to retrieve the data from csv files.

5 Conclusion and Outlook

Apart from summarizing what you have done, please put your contribution in the wider context (of your supervisor's work) and give a few hints about what would be the next steps.

Acknowledgments

Write a brief acknowledgment of your supervisor(s) and any other people or major resources (not your lab neighbour for lending you a pipette!) which contributed to your project.

References

- [1] Schaffner, M.; England, G.; Kolle, M.; Aizenberg, J.; Vogel, N. *Small* **2015**, *11*, 4334–4340.
- [2] Boccaccini, A. R.; Cho, J.; Roether, J. A.; Thomas, B. J.; Minay, E. J.; Shaffer, M. S. *Carbon* **2006**, *44*, 3149–3160.
- [3] UNI-Erlangen, MAP Program structure. 2018; <https://www.map.tf.fau.de/about-map/structure/>.