



Aalborg
Universitet

Eksamensbevis

Mads Pagh Nielsen

Civilingeniør
Energiteknisk linie
Candidatus polytechnices (cand.polyt.)
Master of Science in Engineering

Sven Caspersen
Rektor

Det teknisk-naturvidenskabelige
Fakultetskontor



Name **Mads Pagh Nielsen**
Cpr.nr. **240474**
Education **M.Sc. in Engineering, Energy Technology
Specialization in Thermomechanical Engineering**
Graduated **25. June 1999**

		Modules	Grade	
Final dissertation				
M.Sc. with specialization in Thermomechanical Engineering _____		30	10	*
Title :	DESIGN OF COGENERATION POWER STATIONS			
Projects				
1st semester	Project work in the fields of Technology and the Social Sciences _____	21	Passed	
2nd semester	Project work in the field of Technology _____	21	10	*
3rd semester	Basic Energy Technology _____	24	Passed	
4th semester	Thermomechanical & Hydraulic Energy Machines _____	22	10	
5th semester	Thermomechanical Process Design _____	24	11	*
6th semester	Thermomechanical Energy Installations _____	26	11	
7th semester	Methods of thermomechanical analysis _____	25	9	
8th semester	Energy conversion designs _____	25	10	*
9th semester	Process and system development _____	27	11	
Courses				
1st semester	Mathematics 1 _____	4		
	Computer Science _____	3		

* Indicates participation of external examiner(s), appointed by the Ministry of Education



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	Modules	Grade
Product development _____	1	Passed

The average figure is measured by the number of modules : 10,1

Optional courses

Business Economics 3 _____	1	Passed
Finite Element Methods II _____	1	Passed
Workshop Practice in Turning _____	1	Passed
Workshop Practice in Milling _____	1	Passed
Workshop Practice in Computer Numerical Control (CNC) Programming and Measuring _____	1	Passed

The Faculty of Engineering and Science
Aalborg University
June 28. 1999



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		Modules	Grade
2nd semester	Mathematics 2 _____	4	
	Physics _____	3	
	Total grade for the Study Programme Courses in the 1st and 2nd semester		8
3rd semester	Mathematics I _____	3	8
4th semester	Mathematics II _____	2	Passed
	Mechanics _____	3	Passed
5th semester	Mathematics III _____	2	Passed
	Compressible Flow _____	2	Passed
	Control Technology _____	2	Passed
6th semester	Mathematics IV _____	2	Passed
	Combustion Emission Environment _____	2	Passed
7th semester	Fluid Dynamics I _____	2	Passed
	Energy Methods for Stress Analysis _____	2	Passed
	Mathematics 5, (numerical methods 2) _____	1	Passed
8th semester	Health and Safety at Work _____	1	Passed
	Fluid Dynamics II _____	1	Passed
	Strengths and Properties of Materials 2 _____	2	Passed
	Mathematics 6, (Random Processes) _____	1	Passed
9th semester	Materials Science _____	2	Passed



MARKING SCALE

- 13: Is given for the exceptionally independent and excellent performance
- 11: Is given for the independent and excellent performance
- 10: Is given for the exceptionally but not particularly independent performance
- 9: Is given for the good performance, a little above average
- 8: Is given for the average performance
- 7: Is given for the mediocre performance, slightly below average
- 6: Is given for the just acceptable performance
- 5: Is given for the hesitant and not satisfactory performance
- 03: Is given for the very hesitant, very insufficient and unsatisfactory performance
- 00: Is given for the completely unacceptable performance

The Programme Structure for a Master of Science in Engineering at Aalborg University.

Programme Structure

The programme of study for the M.Sc. (Engineering) degree is of 5 years' duration. Each academic year consists of 2 semesters, each of approximately 900 hours. The measurement of study activity in each semester is expressed in **MODULES (M)**, each module consisting of **20 hours coursework and 10 hours preparation = 30 hours**.

Each study programme consists of **Project Theme Courses, Study Programme Courses and Optional Study Activities**.

The primary element of each semester's programme is the **Project Theme Course**, which is the Project Work, related coursework (Project Theme (PE) Course lectures, seminars, laboratory exercises, etc.) and examination preparation. This element occupies 75% of the programme as an average.

The Project Work consists of the work carried out, by a Project Group or an individual student, with a defined problem concept within the Project Theme, the topic of which is defined by the University in the Syllabus of Studies for the specific programme. The Project Work is completed by the preparation of a Project Report. The theme and content of the Project Theme Courses are determined by the University in the study regulation.

The Final Dissertation is independent Project Work of one semester's duration (30 M). The topic for the Dissertation is chosen by the student(s) and is approved by the University. The approval has included an assessment of the opportunity which the topic provides to work at an appropriate academic level and of the relevance of the topic for the specific field of specialization.

Study Programme (SE) Courses are lectures, seminars, laboratory exercises, etc., which, independently of the Project Theme Course, have the purpose of satisfying parts of the Study Programme.

Optional Study Activities are activities which can be freely chosen from any other study programmes in the University. Optional Study Activities must not exceed 10% of the total study extent.

Examination of the students who are participating in the M.Sc. (Engineering) study programme at Aalborg University is partly by internally supervised examination and partly by externally supervised examination.

Externally supervised examinations are conducted with the participation of one or two external examiners, who are appointed by the Ministry of Education. At least one third of all examinations are external.

Internally supervised examinations are conducted with the participation of a censor from the academic staff at AAU who has not been involved as a teacher or adviser for the students being examined by her or him.

Normally, one Project Theme Course in the Basic Studie Programme, one Project Theme Course in the 3rd – 5th semester and one Project Theme Course in the 6th – 9th semester including the Final Dissertation in the 10th semester, are examined with the participation of an external examiner.

At least two thirds of the study programme must be examined and graded according to the scale: 00, 03, 5, 6, 7, 8, 9, 10, 11, 13. The minimum pass grade is 6. Normally, all the Study Programme Courses in the Basic Studies Programme, and all the Project Theme Courses in the 1st – 10th semester are graded in this scale. The remaining study activities, normally, are examined and given the result "Pass" or "Fail".

The study programme has been successfully completed according to the requirements defined in:

- Ministerial Order No. 495 of 15th August 1988 on the Joint Provisions for Education at Aalborg University.
- Ministerial Order No. 681 of 15th July 1996 on Bachelor and Master of Science in Engineering Programmes at Aalborg University
- Ministerial Order No. 319 of 2nd June 1998 on the amendment of Ministerial Order in Engineering Programmes.