



ME1040 Industrial Management for Biotechnology (4.0 credits)

The course covers 4 credits at basic level and students take the course together with ME1003 Industrial Management, basic course (6.0 credits). ME1003 is provided by the department for Industrial Economics and Management (INDEK) four times a year; in Swedish in periods 2, 3 and in English in period 1 and 4. You can choose whether you wish to use Swedish or English course literature and the examination is provided in both languages.

ME1040 Industrial Management for Biotechnology covers **two of the three modules in ME1003**: module 2 Product costing, and module 3 Financial accounting and corporate finance. Therefore, the course starts on Tuesday 12/9 (08:15-10:00, Room “F1”) when the second module of the course ME1003 begins. However, it is highly recommended that all students join the first lecture (the course introduction) in ME1003 on Tuesday 29/8 (8:15-10:00) in classroom “F1”. During the first lecture, the content of the course, the course syllabus, the examination etc. are described.

Intended learning outcomes

The course focuses on basic concepts and models to understand and handle economic, organizational and management issues in technology-based and industrial activities, as an engineer. More specifically, this means that, after completing the course, you will be able to:

1. select, interpret and use economic calculations as a basis for decision-making in different business situations.
2. use the basic concepts and the principles of bookkeeping and accounting, and describe and explain how the activities of an industrial enterprise can be financed,
3. compile and analyse financial reports for an industrial enterprise
4. describe the activities and strategic position of an existing industrial enterprise by means of concepts from the subject industrial management and carry out a basic economic analysis of the company's operations, financial position and how it is financed.

Main content

The course focuses on basic concepts and models to understand and handle economic, organizational and management issues in technology-based and industrial activities, as an engineer.

Module 2: Product costing

- Cost and revenue analysis
- CVP (Cost-Volume-Profit) analysis
- Product costing
- Investment appraisal

Module 3: Financial accounting and corporate finance

- Book-keeping and accounting
- Annual report and financial analysis
- Corporate finance

Requirements for previous knowledge and future advanced courses

No prerequisites are required except general admission eligibility.

Instruction

The course consists of two modules: (2) Product costing, and (3) Financial accounting and corporate finance. The teaching in both modules offers a combination of lectures and tutorials. The course is examined through two partial exams (each 1.5 credits) and a written assignment (1.0 credits). During the course, an optional business simulation (0 credits) is offered, which can raise **a passing course grade** by one grade level.

Educational support

Students who are entitled to compensatory support during the course or the exam are asked to contact the FUNKA unit as soon as possible. See the link below:

<https://www.kth.se/en/student/stodkontakt/stod/funktionsnedsattning/funka-1.953214>

Teachers and examiners

Course examiner: Bo Karlson

Teacher responsible for the course: Mohammad Akhbari

Teachers: Mohammad Akhbari and Bo Karlson

The teachers are best contacted at lectures.

All other communication with the teachers is handled via the e-mail address: me1003@indek.kth.se, because the course is given together with ME1003. **Please do not use Canvas to communicate with us!**

Course registration

In order to gain access to the course homepage on Canvas and to be examined, you must have registered for the course. All questions regarding *signing up for the course and course registration* are to be addressed to: gru@itm.kth.se.

Course website

All course information is available on the course homepage on Canvas and because the course is given together with ME1003, the course webpage you have access to is “**ME1003/ME1040 HT23-1 Industrial Management, Basic Course**”, where the project assignment (INLA) is also submitted. A course evaluation is carried out here at the end of the course. Send a message to me1003@indek.kth.se if you do not have access to the course homepage on Canvas despite having registered.

Examination, tests and grade criteria

A combination of results of the partial exams (KON5-6) and the project assignment (INLA) determines the final grade for the course. After completing the course, the student is awarded a grade based on the course's intended learning outcomes. A, B, C, D and E are pass grades. An Fx grade can be increased to an E grade by doing a supplementary assignment.

The course's grading criteria are based on how well the student shows that the student has achieved all the learning objectives of the course. The course is examined with a written project assignment and two partial exams, one for each module in the course, with a maximum of 30 points/module as follows:

- Partial exam 2 (KON5, 1.5 credits) examines Module 2 (ILO: 1) that consists of questions regarding product costing and investment appraisal. Grading scale: A-F
Note! You must sign up for KON5 via Ladok at latest 15/Sep.
- Partial exam 3 (KON6, 1.5 credits) examines Module 3 (ILO: 2 and 3) that consists of questions regarding financial accounting and corporate finance. Grading scale: A-F
Note! You must sign up for KON6 via Ladok at latest 29/Sep.
- Written project assignment (INLA, 1.0 credits) examines ILO 4. Grading scale: P, F
- Business simulation (SIMA, 0.0 credits) is a **voluntary** grade-raising activity in the course and will not affect the final grade of the course for those students who choose not to do it. However, the activity will be graded with P or F for the students who choose to do the business simulation in order to keep track of which students have completed this activity. This means that students who for some reason need to retake some part of the course examinations at a later time, do not have to complete the business simulation again.

You sign up by choosing a SIMA-group on Canvas (3 students/group) no later than 2/October

Each module is graded separately, and the total grade is calculated as follows:

M2 (KON5)	M3 (KON6)	Grade (if P on INLA)	Maximum 30p/Module		
F	F	F	Grade F	0p - 13p/module	
E/C/A	F	F	Grade FX	14p/module	
F	E/C/A	F	Grade E	15p - 20p/module	
E	E	E	Grade C	21p - 26p/module	
E	C	D	Grade A	27p - 30p/module	
C	E	D			
E	A	C	Project assignment (INLA, 1.0 credits)	Mandatory examination	P/F
A	E	C	Voluntary Business Simulation (SIMA)	Increase of grade one step	P/F
C	C	C			
A	C	B			
C	A	B	Partial exam 2 (KON5, 1.5 credits)	2023-09-29, 16:00-18:00	
A	A	A	Partial exam 3 (KON6, 1.5 credits)	2023-10-13, 16:00-18:00	

In order to get grade E or higher, you must answer all questions with satisfactory results from the point of view of content. You must also demonstrate in a satisfactory manner that your answers are relevant to the course material. Reasoning and discussion shall be clear, well-structured and easy to follow. Basic concepts and models from the area shall be used in the answer. In order to achieve full credits for the questions, calculations need to be correct and models and methods included in the course material shall be used. Credits are deducted for incomplete or otherwise incorrect steps in the solution.

Grade E

- The student clearly describes the meaning of terms, concepts, theories and working methods in the area of industrial management.
- The student analyzes and explains the results to some extent.
- The student describes and answers questions with some confidence.
- The student analyzes and answers simple questions in familiar situations with satisfactory results.
- The student uses an industrial management language with some confidence and adapts his or her communication to the purpose and context of the problem/question to some extent.

Grade C

- The student must have fulfilled/passed the grading criteria for E.
- The student describes in detail the meaning of concepts, models, theories and working methods in the area of industrial management.
- The student analyzes and explains the results of the analyses in a manner that shows a good understanding of the course content.
- The student describes and answers questions and provides examples (if asked for in the question) with some confidence.
- The student analyzes and answers advanced questions in familiar situations with satisfactory results.
- The student uses an industrial management language with some confidence and adapts his or her communication to the purpose and context of the problem/question to a large extent.

Grade A

- The student must have fulfilled/passed the grading criteria for C.
- The student describes in detail and with variation the meaning of concepts, models, theories and working methods in the area of industrial management.
- The student analyzes and explains the results of the analyses in a manner that shows a very good understanding of the course content.

- The student describes and answers questions, provides examples (if asked for in the question) and generalizes (if asked for in the question) with confidence.
 - The student analyzes and answers advanced and complex questions in familiar situations with good results.
 - The student uses an industrial management language with confidence and adapts his or her communication to the purpose and context of the problem/question to a very large extent.
- **The results of each partial exam are reported within 19 working days of the examination date.**
- **The results of the INLA-assignment are reported within 15 working days after the deadline for submission of the assignment.**

Grade Fx

Students who have received grade Fx on any of the two partial exams (see above) can, by doing a supplementary assignment for each partial exam, receive grade E.

Course literature

- **Modern industrial management** Engwall, et al (**Second edition, 2020**), published by Studentlitteratur, **ISBN 9789144141527**. Sold at **KTH's Student Union Bookshop** and on the Internet.
- **Exercises for Modern Industrial Management** Engwall, et al (**Second edition, 2020**), published by Studentlitteratur, **ISBN 9789144141534**. Sold at **KTH's Student Union Bookshop** and on the Internet.

In addition to the course books, there are five *instruction videos* (PPT presentations with audio) available for self-study on Canvas (Kullvén 2014). The videos deal with Cost-Volume-Profit (CVP) analysis, costing, investment appraisal, accounting and finance. Further course material may be made available on the course homepage.

Reading instructions for the course book "Modern Industrial Management"

Only **chapter 8 to 12** of the course book "Modern Industrial Management" are included in this course (**ME1040**).

Project assignment, INLA, 1.0 credits (2 students/group)

The project assignment (INLA) means that you, together with another classmate, do a financial analysis and reflect on specific questions and relate these to an industrial company you have selected. The submitted assignments are graded P/F.

Grading criteria for INLA-assignment

The written report should:

- answer all questions in all three parts of the assignment,
- provide clear and well-argued answers to the questions,
- demonstrate that understanding has been achieved by clearly showing how the group has argued and what assumptions and simplifications have been made,
- demonstrate the group's ability to use, apply and present appropriate and relevant concepts and models from the course literature,
- be well written, clearly structured and contain a clear recommendation or other conclusion.

Each part is graded P/F. Grade "P" on the assignment requires grade "P" on each of the three parts. The report is graded "FX" if one of the three parts is graded "F". Grade "FX" means that the part that was graded "F" can be rewritten to obtain grade "P". A detailed description of the assignment, including instructions, is available on Canvas.

Submission after the deadline will not be assessed.

The strict word limit of the report must be respected. A report that exceeds or is shorter than the word limit will not be assessed.

Plagiarism is not permitted. Information on plagiarism can be found at [CHEATING AND PLAGIARISM](#). ***IMPORTANT! Self-plagiarism is also plagiarism.*** See also the document “**Handbook – Guiding students a way from plagiarism**” that can be found on Canvas.

Voluntary business simulation, SIMA, 0 credits (3 students/group)

The voluntary Business simulation (SIMA) consists of a web-based business simulation (Hubro Business Simulation) where you compete against each other in small teams. Each team represents a fictitious company and the game involves increasing the company’s equity as much as possible over a period of time. The simulation is done over the Internet but in a classroom at KTH. Each team needs at least one laptop computer or a tablet/Ipad. You can find more information about the stimulation at: www.hubro.education.

In order to achieve grade “**Pass**” on the assignment, active participation is required during the entire simulation and that the company’s equity has at least doubled during the simulation.

*The student teams that do not succeed in doubling their equity in the company will need to submit an extra assignment in order to receive the grade **Pass (P)** on the business simulation (SIMA).*

*Those students teams that have negative equity in the company at the end of the simulation will receive grade **Fail (F)** on the business simulation (SIMA).*

Registration for exams, re-exams and “grade improvement” (“plussning”)

The partial exams are given during periods 1, 2, 3 and 4. All partial exams are provided in both Swedish and English. No re-exams are given during the August period or in any of the other re-examination periods. Extra re-examination dates for individual students are not offered.

Sign up for each one of the partial exams and for the business simulation is compulsory. Without having signed up, you may take a partial exam if there are spaces available and if you can present a printed certificate of having registered for the course. You need to print out the certificate yourself.

- For KTH students, sign up for partial exams and business simulation opens as follows:
 - KON5 on **Tuesday 29/8** and closes on **Friday 15/9** at 23:59.
 - KON6 on **Tuesday 29/8** and closes on **Friday 29/9** at 23:59.
- Sign up for a re-examination (i.e. for the partial exams respectively in one of the other three study periods) is done in the same way.

“Grade improvement (Plussning)” is not permitted.

INDEK student office

The INDEK student office is located in Sing Sing, Lindstedtsvägen 30. The office is usually open every working day from 8.30 am to 3.00 pm.

Schedule

The current schedule can be found in a separate document.

“Please note that all reports will be checked for plagiarism”

“Self-plagiarism is also plagiarism”

The course content and modules

Module 2 Product costing

<u>ILO:</u>	(Intended Learning Outcome 1)
<u>Content:</u>	Cost-Volume-Profit (CVP) analysis, product costing, investment appraisals.
<u>Lecture:</u>	Lectures 8-10
<u>Literature:</u>	Chapters 8-9
<u>Tutorials:</u>	Tutorials 1-2
<u>Examination:</u>	Partial exam 2 (KON5, 1.5 credits)

Module 3 Financial accounting and corporate finance

<u>ILO:</u>	(Intended Learning Outcomes 2, 3)
<u>Content:</u>	Bookkeeping, financial accounting, financial analysis, the business's capital requirements and financing
<u>Lecture:</u>	Lectures 11-13
<u>Literature:</u>	Chapters 10-12
<u>Tutorials:</u>	Tutorials 3-5
<u>Examination:</u>	Partial exam 3 (KON6, 1.5 credits)