

Course syllabus for

P05: Trend spotting – How to identify the future gaps?

Syllabus adopted 2021-06-17 by Professor Bengt-Göran Rosén, Produktion2030 Head of Education



Credits	7,5 hec (student hours: 200 hours; 9 meetings of 4 hours in class (online or physical, if physical 3*12 hours sessions) + 5 meetings of 2 hours online in project groups + 152 hours of own work)
Grading scale	Satisfactory/not satisfactory
Education cycle	Third-cycle
Examiner	Kerstin Johansen, Jönköping University
Eligibility	Fulfilled 120 hec in a 3 rd cycle program (2yrs of research) or equivalent.
Aim	The course aims to give an introduction into the area of Trend spotting including training in trend spotting related to ongoing research.

Intended learning outcomes After completion of the course the course participant should:

Knowledge and understanding

- have the knowledge about how to perform a trend spotting using Hoshin Kanri
- demonstrate knowledge in technology road-mapping
- have knowledge about and be able to discuss trends from a multidisciplinary perspective as well as in line with new emerging fields relevant for integrating product and production development needs

Skills and abilities

- demonstrate an ability to perform trend spotting relevant for its own field of research as well as related to industrial needs
- demonstrate an ability to develop a technology road map relevant for its own field of research

Judgement and approach

- demonstrate an ability to relate that trendspotting skills and results to a research gap
- demonstrate insights into the industrial challenges in the era of emerging technologies, digitalization and circular economy

Course content	The course is centred around the ability to identify knowledge gaps through trend spotting as well as developing technology road maps which contributes to identify future research topics.
Course organisation	200 hours student work; 9 meetings * 4 hours in class (online or physical, if physical 3*12 hours sessions) + 5 meetings of 2 hours online in project groups + 152 hours of own work) <i>To be further described in the table below.</i>
Examination	Active participation at 75% of the meetings including oral presentations at compulsory seminars. Presenting an own technology road map Hand in answers to all Quizzes Providing questions, interviews and a trend spotting report in a project group work.
Literature	Book and relevant academic papers, such as – to be further developed:

Melander, A., Andersson, D., Elgh, F., Fjellstedt, F., Löfving, M., Thulin, M., Hoshin Kanri, Studentlitteratur – English version planned for autumn 2021

<https://www.studentlitteratur.se/kurslitteratur/organisation-och-ledarskap/organisation/hoshin-kanri#show>

Phaal, R., Farrukh, C.J.P., Probert, D.R. (2004) Technology roadmapping – A planning framework for evolution and revolution, *Technological Forecasting & Social Change*, Vol.71, pp.5-26

Bereznoy, A., (2019) Corporate foresight in the strategy of multinationals, *Working Paper National Research University Higher School of Economics*, WP BRP 97/STI/2019, pp.1-30

Course dates and activities – To be developed:

Session / Date	To prepare / read before the session	Activities – To be further detailed, and adopted before course start
#1 2021-12-06 13:00 – 17:00 (virtual)	Prepare a one-pager about your research – Context for the research, Purpose, Keywords, Expected outcome	Course introduction Societal visions for the future industry incl circular economy
Jan 2022 – second half	Start to read the book	Introduction to Hoshin Kanri and technology mapping
Feb 2022 – mid	The book should be read	Hoshin Kanri seminar
Mar 2022 - mid	TBD	Guest lecture about emerging technologies and/or study visit at company
Mar 2022 - mid	TBD	Literature seminar about emerging technologies
Apr 2022 First half	TBD	Guest lecture about digitalization related to industrial challenges and/or study visit at a company
Apr 2022 First half	TBD	Literature seminar about digitalization and related industrial trends
May 2022 Mid	TBD	Technology mapping seminar – individual project presentation
May 2022 Mid	TBD	Final seminar – Group project presentation