

STOCKHOLMS UNIVERSITET

Psykologiska institutionen

Course Description

Organizational Psychology and Workplace Safety

(7.5 hp)

Master's Program

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Organizational Psychology and Workplace Safety

Course Content

The course presents an overview of preventative and practical perspectives on the management and administration, of safety-related activities in organizations that are grounded in individual, social, organizational, and cognitive psychology. The behavioral science perspective is of increasing importance as technical/organizational systems expand, interact, and become more complex. New systems are being introduced in existing organizational structures as institutionalized types of organization are giving way to temporary and less fixed constellations. This carries with it a new operational framework with risks for error at the individual as well as the organizational level especially in connection with organizational decision-making. Focusing on preventative safety is therefore all the more important. The course is grounded in the interplay of humans, technology, and organizations (HTO), together with an introduction and orientation of basic risk philosophy, causality theory, risk and incident analysis, and accident investigations.

Instruction

The course is comprised of a series of lectures and each lecture focuses on a key safety-related area in accordance with the readings and topics in the schedule. The readings are in the form of scientific articles. The course is at the master's level and students are expected to have prior knowledge of basic psychological theories. The course also contains obligatory seminars with exercises in which the students apply what they have read and learned. The seminars will also include discussions based on the lectures and assigned readings. Students are expected to have a good understanding of the assigned readings in order to contribute to the class discussion. The course concludes with an obligatory examination seminar in which individually written papers will be presented and discussed.

Expected Learning Outcomes

After completing the course, participants are expected:

- To be able to critically and systematically analyze, judge, and utilize complex phenomena and issues that are relevant to safety considerations in organizations.
- To be able to critically, independently, and creatively identify and formulate lines of inquiry as well as design and carry out advanced assignments using appropriate methods in relations to safety in organizations.
- To be able to orally and in writing clearly present and discuss scientific work in relation to psychological aspects on risk, safety and accident in working life.

Knowledge Assessment and Examination

A seven-point, grading system is used in this course (see below). Course assessment is based on (1) preparation, oral presentation and active participation in the discussion seminars and (2) an individually written essay.

1. Discussion seminars

The following requirements must be met to receive a final grade in the course:

- Active participation in the seminars (absence from seminar meetings must be compensated for by an extra assignment)

For this requirement the grades of “pass” and “fail” (with the possibility of supplementary examination) are used. Assessment is based on the following criteria:

- Ability to facilitate a topic-related discussion
- Inclusion of reflection and original reasoning

2. *Individually written essay*

The final examination in the course is in the form of an individually written essay that utilizes one or more of the main topics or concepts presented in the course. The essay (5-pages, single-spaced type, including references) is to be assessed and graded according to the seven-point ECTS scale (A, B, C, D, E, Fx, F). The assessment of the essay is based on the following criteria:

- Relevant connection to the issues in question
- Connection to the course literature and other literature relevant to the assignment
- Clarity and structure of the description
- Inclusion of reflection and original reasoning about the problem

The grading will be based on the quality of the individual essay (according to the above) and also take into account the oral presentation at the examination seminar.

Grading Criteria

The grading is based on the following criteria:

A. The expected study outcomes have been reached to an exceptionally high degree.

The student is able to combine concepts, theories, and models to explain actual examples and is also able to point out the explicatory limitations of the concepts/ theories/models through reference to the nature of the actual examples or to alternative theoretical views. The student engages in argumentation and discussion independent of the literature and in a manner that creates new syntheses and lines of reasoning that go beyond the course literature.

B. The expected study outcomes have been reached to a very high degree.

The student is able to combine and compare concepts, theories, and models to explain actual examples. The student engages in independent argumentation and discussion in a manner that goes beyond the course literature and that, to some degree, creates new syntheses.

C. The expected study outcomes have been reached to a high degree.

The student is able to apply the concepts, theories, and models from the literature to explain actual examples. The student is able, to some degree, to draw independent connections between the various theories and lines of reasoning presented in the literature.

D. The expected study outcomes have been satisfactorily reached.

The student is able to describe the concepts, theories, and models in his/her own words. The student is able to refer to the concepts, theories, and models when discussing actual examples.

E. The expected study outcomes have been reached despite some deficiencies.

The student is able to define the concepts and describe what the theories and models are meant to explain. The student is able to utilize such lines of reasoning to some extent to describe the processes occurring in actual examples.

Fx. Insufficient.

The learning outcomes have not been reached. In one or more areas the level of performance is judged to reflect “certain deficiencies that must be resolved,” but “unsatisfactory” was not judged to apply to any single area. Compensatory work is required.

F. Completely insufficient.

The learning outcomes have not been reached and reaching them is not judged to be possible. The level of performance in one or more areas is judged to be “unsatisfactory.”

Plagiarism, cheating and unauthorized cooperation

It is included in your responsibility as a student to be aware of the examination rules at Stockholm University. Detailed information is available both at the web pages of the Department of Psychology and Stockholm University (www.su.se/regelboken).

Teachers are obliged to report suspicion about cheating and plagiarism to the principal and the disciplinary board. Plagiarism and cheating are always disciplinary matters and can lead to shutting off from studies. One example of plagiarism is to verbatim (word-by-word), or almost, copy a text (this also concerns occasional sentences) without quoting the source of the text. This also concerns texts that you have yourself authored previously (self-plagiarism). To be involved in study groups (i.e., the smaller units within seminar groups) is developing and time efficient, but when it comes to examination tasks you will need to make sure that you are working on your own (if nothing else is instructed) in order not to risk that any collaboration will be considered unauthorized.

Course Literature

Academic articles: (download via SU account)

1. Awad, e., Dsouza, S., Kim, R., Schulz, J., Henrich, J., Shariff, A., Bonnefon, J-F, & Rahwan, I. (2018). The moral machine experiment. *Nature*, 563, 59-64.
<https://doi.org/10.1038/s41586-018-0637-6>.
2. Allinson, R. A. (2007). Risk management: Demythologising its belief foundations. *International Journal Risk Assessment and Management*, 7, 299-311.
<http://dx.doi.org/10.1504/IJRAM.2007.011984>
3. Aven, T. (2016). Risk assessment and risk management: Review of recent advances on their foundation. *European Journal of Operational Research*, 253, 1-13.
<https://doi.org/10.1016/j.ejor.2015.12.023>
4. Baysari, M. T., McIntosh, A. S., & Wilson, J. R. (2008). Understanding the human factors contribution to railway accidents and incidents in Australia. *Accident Analysis and Prevention*, 40, 1750-1757. <https://doi.org/10.1016/j.aap.2008.06.013>.
5. Besnard, D., & Hollnagel, E. (2014). I want to believe: Some myths about the management of industrial safety. *Cogn Tech Work*, 16, 13-23.
<https://doi.org/10.1007/s10111-012-0237-4>.
6. Beus, J. M., Taylor, W. D. (2018). Working safely at some times and unsafely at others: A typology and within-person process model of safety-related work behaviors. *Journal of Occupational Health Psychology*, 23, 402-416.
<http://dx.doi.org/10.1037/ocp0000092>.
7. Casey, T., Griffin, M., A., Harrison, H., F., & Neal, A. (2017). Safety climate and culture: Integrating psychological and system perspectives. *Journal of Occupational Health Psychology*, 22, 341-353. <http://dx.doi.org/10.1037/ocp0000072>.
8. DeJoy, D. M., (2005). Behavior change versus culture change: Divergent approaches to managing workplace safety. *Safety Science*, 43, 105-129.
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9. Etienne, J. (2008) Knowledge transfer in organisational reliability analysis: From post-accident studies to normal operations studies. *Safety Science*, 46, 1420-1434.
<https://doi.org/10.1016/j.ssci.2007.10.002>
10. Honn, K. A., Van Dongen, H. P. A., & Dawson, D. (2019). Working time society consensus statements: Prescriptive rule sets and risk management-based approaches for the management of fatigue-related risk in working time arrangements. *Industrial Health*, 57, 264-280. <https://dx.doi.org/10.2486%2FindhealthSW-8>.
11. Larouzee, J., Le Coze, J-C. (2020). Good and bad reasons: The Swiss cheese model and its critics. *Safety Science*, 126, 1-11. <https://doi.org/10.1016/j.ssci.2020.104660>.

12. Lyubykh, Z., Turner, N., Hershcovis, M. S., & Deng, C. (2022). A meta-analysis of leadership and workplace safety: Examining relative importance, contextual contingencies, and methodological moderators. *Journal of Applied Psychology*, 12, 2149-2175. <https://doi.org/10.1037/apl0000557>
13. Navestad, T. (2008) Safety cultural preconditions for organizational learning in high-risk organizations. *Journal of Contingencies and Crisis Management*, 16(3), 154-163. <https://doi.org/10.1111/j.1468-5973.2008.00544.x>.
14. Pidgeon, N. & O'Leary, M. (2000) Man-made disasters: Why technology and organizations (sometimes) fail. *Safety Science*, 34, 15-30. [https://doi.org/10.1016/S0925-7535\(00\)00004-7](https://doi.org/10.1016/S0925-7535(00)00004-7).
15. Yeow, P. H. P., & Goomas, D. T. (2014). Outcome-and – behavior-based safety program to reduce accidents: A case study of a fluid manufacturing plant. *Safety Science*, 70, 429-437. <https://doi.org/10.1016/j.ssci.2014.07.016>.

Some literature for inspiration and further reading

Academic articles: (can be downloaded via SU account)

1. Aven, T. (2015). Implications of black swans to the foundations and practice of risk assessment and management. *Reliability Engineering and System Safety*, 134, 83-91. <https://doi.org/10.1016/j.ress.2014.10.004>.
2. Awal, Z. I., & Hasegawa, K. (2017). A study on accident theories and application to maritime accidents. *Procedia Engineering*, 194, 298-306. <http://dx.doi.org/10.1016/j.hrmmr.2013.08.012>
3. Beus, J. M., Dhanani, L., Y., & McCord, A. (2015). A meta-analysis of personality and workplace safety: Addressing unanswered questions. *Journal of Applied Psychology*, 100, 481-498. <http://dx.doi.org/10.1037/a0037916>.
4. Kee, D., Jun, G. T., Waterson, P., & Haslam, R. (2017). A systemic analysis of South Korea Sewol ferry accident – Striking a balance between learning and accountability. *Applied Ergonomics* 59 504-516. <http://dx.doi.org/10.1016/j.apergo.2016.07.014>.
5. Kim, H., Haugen, S., & Bouwer, U. I. (2016). Assessment of accident theories for major accidents focusing on the MV SEWOL disaster: Similarities, differences, and discussion for a combined approach. *Safety Science*, 82, 410-420. <https://doi.org/10.1016/j.ssci.2015.10.009>.
6. Kim, T., Nazir, S., & Övergård, K. I. (2016). A STAMP-based causal analysis of the Korean Sewol ferry accident. *Safety Science*, 83, 93-101. <http://dx.doi.org/10.1016/j.ssci.2015.11.014>.

7. Lundberg, J., Rollenhagen, C., & Hollnagel, E. (2009). What-you-look-for-is-what-you-find – The consequences of underlying accident models in eight accident investigation manuals. *Safety Science*, 47, 1297-1311.
<https://doi.org/10.1016/j.ssci.2009.01.004>.
8. Liao, M. (2015). Safety Culture in commercial aviation: Differences in perspective between Chinese and Western pilots. *Safety Science*, 79, 193-205.
<https://doi.org/10.1016/j.ssci.2015.05.011>.
9. Maslen, S., & Hopkins, A. (2014). Do incentives work? A qualitative study of managers' motivations in hazardous industries. *Safety Science*, 70, 419-428.
<https://doi.org/10.1016/j.ssci.2014.07.008>.
10. Merriman, S. E., Plant, K. L., Revell, M. A., Stanton, N. A. (2021). What can we learn from automated vehicle collisions? A deductive thematic analysis of five automated vehicle collisions. *Safety Science*, 141, 1-18.
<https://doi.org/10.1016/j.ssci.2021.105320>.
11. Mattson, M., Hellgren, J., & Göransson, S. (2015). Leader communication approaches and patient safety: An integrated model. *Journal of Safety Research*, 53, 53-62. <http://dx.doi.org/10.1016/j.jsr.2015.03.008>
12. Mattson, M., Torbiörn, I., & Hellgren, J. (2013). Effects of staff bonus systems on safety behaviors. *Human Resource Management Review*, 24, 17-30.
<http://dx.doi.org/10.1016/j.hrmr.2013.08.012>
13. Mattson Molnar, M., Von Thiele Schwarz, U., Hellgren, J., Hasson, H., & Tafvelin, S. (2019). Leading for safety: A question of leadership focus. *Safety and Health at Work*, 10, 180-187. <https://doi.org/10.1016/j.shaw.2018.12.001>
14. Schröder-Hinrichs, J, Hollnagel, E., & Baldauf, M. (2012). From Titanic to Costa Concordia – a century of lessons not learned. *Journal of Maritime Affairs*, 11, 151-167. <https://doi.org/10.1007/s13437-012-0032-3>.
15. Tucker, S, Ogunfowora; B., & Her, D. (2016). Safety in the C-suite: How chief executive officers influence organizational safety climate and employee injuries. *Journal of Applied Psychology*, 10, 1228-1239.
<https://doi.org/10.1037/apl0000116>.
16. Zinn, J. O. (2019). The meaning of risk-taking – key concepts and dimensions. *Journal of Risk Research*, 22, 1-15.
<https://doi.org/10.1080/13669877.2017.1351465>.