

Course schedule: Modeling Process Dynamics

January 11, 2021

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1	This page lists the days of class and associated topics that we will cover on those days. If there is no topic on a day it might happen that the exam preparation is listed. I might update this only a few days in advance.	3
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2.2	<2021-01-14 Thu 09:30> Python/Jupyter ./lectures/01-jupyter.org	3
2.3	<2021-01-19 Tue 09:30> Mathematical modelling ./lectures/01-modelling.org	3
2.4	<2021-01-21 Thu 09:30> First principle modelling ./lectures/02-modelling.org	3
2.5	<2021-01-26 Tue 09:30> Integration of models given by first order ordinary differential equations and numerical integration ./lectures/03-fode-1.org	3
2.6	<2021-01-28 Thu 09:30> Systems of first-order differential equations ./lectures/04-fode-2.org	3
2.7	<2021-02-02 Tue 09:30> Linear systems ./lectures/05-Lin-1.org	3
2.8	<2021-02-04 Thu 09:30> Basic Models in Chemical Engineering ./lectures/06-Lin-2.org	3
2.9	<2021-02-09 Tue 09:30> Preparation Exam	3
2.10	<2021-02-11 Thu 09:30> Exam I	3
2.11	<2021-02-16 Tue 09:30> Reading Week	3
2.12	<2021-02-18 Thu 09:30> Reading Week	3
2.13	<2021-02-23 Tue 09:30> Continuous and discrete models and representation ./lectures/07-Cont-Discr-1.org	3
2.14	<2021-02-25 Thu 09:30> Time delay systems ./lectures/07-Cont-Discr-2.org	3
2.15	<2021-03-02 Tue 09:30> Transfer function models ./lectures/08-Transfer-function-01.org	3

2.16	<2021-03-04 Thu 09:30> Transfer function link to State Space ./lectures/08-Transfer_function-02.org	3
2.17	<2021-03-09 Tue 09:30> Mathematical model propertiese, con- trollability and observability ./lectures/09-Linear-System-properties. org	3
2.18	<2021-03-11 Thu 09:30> Discrete based models ./lectures/ 10-discrete-Linear-System-setting.org	3
2.19	<2021-03-16 Tue 09:30> Discrete model response and properties ./lectures/11-discrete-system-setting-response.org	3
2.20	<2021-03-18 Thu 09:30> Preparation II	3
2.21	<2021-03-23 Tue 09:30> Exam II	3
2.22	<2021-03-25 Thu 09:30> Linear regression I ./lectures/12-linear-regression. org	3
2.23	<2021-03-30 Tue 09:30> Least square estimation ./lectures/ 13-least-square-estimation.org	3
2.24	<2021-04-01 Thu 09:30> System identification ./lectures/ 14-system-identification.org	3
2.25	<2021-04-06 Tue 09:30> Principal Component Analysis ./lectures/ 15-PCA.org	3
2.26	<2021-04-08 Thu 09:30> Final Exam Preparation	3
2.27	<2021-04-13 Tue 09:30> Final material summary and missing lectures	3
2.28	<2021-04-15 Thu 09:30> Final material summary and missing lectures	3