

Model timetable: Cosmology – 120 cr

Start of studies in the autumn 2025, 2027 or 2029:

First year:

period 1, odd year (17,5 cr)

Obligatory: -

Advanced studies: TCM304 Mathematical Methods of Physics IIIa (5 cr)
PAP332 Introduction to Particle Physics I (5 cr)
PAP302 Open Problems in Modern Astrophysics (2,5 cr) 1/2

Other studies: FYS2081 Cosmology I (5 cr) (needed for Cosmology II)

period 2, odd year (17,5 cr)

Obligatory: PAP326 Cosmology II (5 cr)

Advanced studies: PAP302 Open Problems in Modern Astrophysics (2,5 cr) 2/2
TCM305 Mathematical Methods of Physics IIIb (5 cr)
PAP325 Introduction to Particle Physics II (5 cr)

Other studies: -

period 3, even year (12,5 cr)

Obligatory: -

Advanced studies: PAP348 General Relativity I (5cr)
PAP351 Stellar magnetic activity (5 cr) (even years)
MATR386 Physics of positrons in solids and defects (5 cr) (even years)

Other studies: BSCS2015 Data Analysis with Python (5 cr, MOOC)

period 4, even year (12,5 cr)

Obligatory: -

Advanced studies: PAP349 General Relativity II (5cr)
PAP351 Stellar magnetic activity (even years) continues
MATR386 Physics of positrons in solids and defects (even years) cont.

Other studies: BSCS2015 Data Analysis with Python (5 cr, MOOC) continues

Second year

period 1, even year (16,25 cr)

Obligatory:	PAP301 ParAs Seminar Course (5cr) PAP350 MSc thesis work (30 cr)
Advanced studies:	TCM327 Quantum Field Theory I (5 cr) PAP347 Theories beyond the standard model (5 cr) (even years) (<i>Quantum field theory as prerequisite</i>)

period 2, even year year (16,25 cr)

Obligatory:	PAP301 ParAs Seminar Course (continues) PAP350 MSc thesis work (continues)
Advanced studies:	TCM328 Quantum Field Theory II (5 cr) PAP347 Theories beyond the standard model (5 cr) (even years) (<i>Quantum field theory as prerequisite</i>) continues
Other studies:	-

period 3, odd year (13,75 cr)

Obligatory:	PAP301 ParAs Seminar Course (continues) PAP350 MSc thesis work (continues)
Advanced studies:	Advanced studies: TCM329 Quantum Field Theory III (5 cr) <i>or</i> PAP303 Statistical Inverse Methods (5 cr) <i>or</i> PAP317 Galactic dynamics (5 cr) (odd years) <i>or</i> PAP352 Galaxy Survey Cosmology (5cr) (odd years)
Other studies:	-

period 4, odd year (13,75 cr)

Obligatory:	PAP301 ParAs Seminar Course (continues) PAP350 MSc thesis work (continues)
Advanced studies:	PAP353 Gravitational Lensing (5cr) TCM332 Quantum Field Theory III (5 cr)

or
PAP303 Statistical Inverse Methods continues
or
PAP317 Galactic dynamics (odd years) continues
or
PAP352 Galaxy Survey Cosmology (odd years) continues

Other studies: -

Start of studies in the autumn 2026 or 2028:

First year:

period 1, even year (17,5 cr)

Obligatory: -
Advanced studies: TCM304 Mathematical Methods of Physics IIIa (5 cr)
PAP332 Introduction to Particle Physics I (5 cr)
PAP302 Open Problems in Modern Astrophysics (2,5 cr) 1/2

Other studies: FYS2081 Cosmology I (5 cr) (needed for Cosmology II)

period 2, even year (17,5 cr)

Obligatory: PAP326 Cosmology II (5 cr)

Advanced studies: PAP302 Open Problems in Modern Astrophysics (2,5 cr) 2/2
TCM305 Mathematical Methods of Physics IIIb (5 cr)
PAP325 Introduction to Particle Physics II (5 cr)

Other studies: -

period 3, odd year (12,5 cr)

Obligatory: -

Advanced studies: PAP348 General Relativity I (5cr)
PAP352 Galaxy Survey Cosmology (5cr)

Other studies: BSCS2015 Data Analysis with Python (5 cr, MOOC)

period 4, odd year (12,5 cr)

Obligatory: -

Advanced studies: PAP349 General Relativity II (5cr)
PAP353 Gravitational Lensing (5cr) (odd years)

Other studies: BSCS2015 Data Analysis with Python (5 cr, MOOC) continues

Second year

period 1, odd year (16,25 cr)

Obligatory: PAP301 ParAs Seminar Course (5cr)
PAP350 MSc thesis work (30 cr)

Advanced studies: TCM327 Quantum Field Theory I (5 cr)
PAP318 Galaxy formation and evolution (5 cr) (odd years)

Other studies: -

period 2, odd year (16,25 cr)

Obligatory: PAP301 ParAs Seminar Course (continues)
PAP350 MSc thesis work (continues)

Advanced studies: TCM328 Quantum Field Theory II (5 cr)
PAP318 Galaxy formation and evolution continues

period 3, even year (13,75 cr)

Obligatory: PAP301 ParAs Seminar Course (continues)
PAP350 MSc thesis work (continues)

Advanced studies: TCM329 Quantum Field Theory III (5 cr)
or
PAP303 Statistical Inverse Methods (5 cr)

Other studies: -

period 4, even year (13,75 cr)

Obligatory: PAP301 ParAs Seminar Course (continues)
PAP350 MSc thesis work (continues)

Advanced studies: PAP303 Statistical Inverse Methods (continues)
TCM332 Quantum Field Theory IV (5 cr)

Other studies: -