**Course TIK4001, Fall semester 2016**

**Preliminary outline. This draft: 11th June 2016**

**General considerations on the course TIK4001 for the fall 2016**

The course intends to:

* Renew and upgrade the structure and content of some of the modules of the course
* Increase consistency between the various topics (within each module, and among modules); avoid excessive fragmentation of lectures and lecturers
* Make active use of interactive teaching in addition to standard lectures: group work, oral presentations and debates, videos, study visits.
* Provide an earlier presentation of TIK’s research themes
* Provide an early introduction to empirical methods and approaches (see module 4)

**Course structure**

1. General introduction.

2. Introduction to STS.

3. Introduction to innovation studies.

4. Introduction to empirical data and methods.

**Number of lectures per week:** 4 lectures per week: 3 standard lectures, plus one lecture of a more interactive type (e.g. study visit, group-work tasks, videos, debates).

**Main lecturer in each module:** To increase consistency and avoid fragmentation, the coordinator of each module will also be the main lecturer of that part of the course. The coordinator of each module will have a few invited lectures from others at TIK.

**Module 1: General introduction.**

**Coordinator:** Taran Thune.

**Module duration:** 3 weeks.

**Period:** weeks 33-35.

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| **Dato** | **Hvem** | **Tema** | **Pensum (forslag)** |
|  |  | ***Uke 33:*** ***BLI KJENT MED FAGET*** |  |
| 15. aug10.15-12 | Fulvio Castellacci, Taran Thune, Hilde Reinertsen, Håkon Normann & andre  | *Velkommen til nye TIK studenter.*Kort innføring i fagets målsetninger, undervisningsprofil, eksamen, studentgruppen og faglige ansatte | - |
| 16. aug10.15-12 | Taran Thune | *Hva er vitenskap og teknologi?* En kort innføring i sentrale begreper og perspektiver som brukes i faget. | Sismondo (kap. 1) |
| 18. aug10.15-12 | Taran Thune | *Hva er innovasjon?*En kort innføring i sentrale begreper og perspektiver som brukes i faget. | Tidd & Bessant (kap. 1) |
| 18. aug13.15-15 | Vegard Tveito | Arbeidsmetoder i faget | - |
|  |  | ***Uke 34 & 35:*** ***INTELEKTUELLE TRADISJONER*** |  |
| 22. aug12.15-14 | Taran Thune | Filosofiske, historiske og sosiologiske studier av vitenskap | Sismondo (kap. 2-5);Eksempeltekster:Merton 1973 (et kap.); Kuhn 1967 – utdrag |
| 23. aug10.15-12 | Taran Thune | Konstruktivisme som vitenskapsteoretisk perspektiv | Sismondo (kap. 6,9);Eksempeltekster:Pinch & Bijker;Latour & Woolgar (kap 2) |
| 25. aug10.15-12 | Taran Thune & Magnus Gulbrandsen | Hva innebærer det å studere forskning og forskere? | Eksempler på deres tekster? |
| 29. aug10.15-12 | Taran Thune | Studier av teknologi og teknologisk endring | Sismondo (kap 8);Eksempeltekster:Mokyr (kap. 5);Hughes 1987 |
| 30. aug10.15-12 | Taran Thune | Fra teknologistudier til innovasjon | Fagerberg 2003;Eksempeltekster:Nelson & Winter 1987, (kap 2);Tidd & Bessant (kap. 2- 3) |
| 1. sep10.15-12 | Jens Hansson & Håkon Normann  | Hva innebærer det å studere teknologi og teknologisk utvikling i et samfunnsvitenskapelig perspektiv? | Eksempel (layers teksten til Olav)Morlacchi & Nelson 2011 |
| 1. sep12.15-13 | Taran Thune | Oppsummering:Hva vi har lært så langt og veien videre i kurset | - |

**Module 2: Introduction to STS.**

**Coordinator:** Hilde Reinertsen.

**Module duration:** 4 weeks + 1 week essay.

**Period:** weeks 36-39.

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| **Dato** | **Hvem** | **Tema** | **Pensum (forslag)** |
|  |  | ***UKE 1: Hvilken rolle spiller vitenskap*** ***og teknologi i samfunnet og i våre liv?*** |  |
| 5. sep.10:15–12:00 | Hilde Reinertsen | Introduksjon til modulen og STS som fagfelt | Asdal, Moser, Brenna 2007(+ Sismondo og Sjølsvold) |
| 6. sep.10:15–12:00 | Hilde Reinertsen | Det tekniske og det politiske | Berg 1999, Collins&Pinch 1998, Winner 1980 |
| 7. sep. | Hilde Reinertsen(IKKE BEKREFTET) | Ekskursjon 1: Teknisk Museum | - |
| 8. sep.10:15–12:00 | Hilde Reinertsen | Workshop: Det tekniske og det menneskelige | Oudshoorn&Pinch 2003, Soneryd 2007, Turkle 2012, Wyatt 2003 |
| 9. sep | Hilde Reinertsen(IKKE BEKREFTET) | Filmvisning: *Drone* | - |
|  |  | ***UKE 2:*** ***Hva gjør teknologiene? Styrer vi dem eller de oss?*** |  |
| 12. sep.10:15–12:00 | Hilde Reinertsen | Har vi noe valg? Sosial konstruksjon vs. teknologi-determinisme | Akrich 1992, de Laet & Mol 2000, Pinch&Bijker 1984, Wyatt 2007 |
| 13. sep.10:15–12:00 |  | Teknologi og omsorg | Moser & Thygesen 2013, 2014; Pols, 2010 |
| 14. sep. | Hilde Reinertsen(IKKE BEKREFTET) | Ekskursjon 2: Teknologirådet | Bruun Jensen 2005, Callon et.al 2009 |
| 15. sep.10:15–12:00 | Hilde Reinertsen | Ekspertise, kritikk og kontrovers | Asdal 2011 (kap 1, 4), Callon et.al 2009, Wynne 1992, Hilgartner 2000 |
|  |  | ***Uke 3: Hvordan blir vitenskap til?*** ***Inn i laboratoriet og ut igjen*** |  |
| 19. sep.10:15–12:00 | Hilde Reinertsen | Inn i laboratoriet: Å produsere ny kunnskap | Kuhn 1962, Latour & Woolgar 1986, Asdal 2011 (introduksjon) |
| 20. sep.10:15–12:00 | Tone Druglitrø | Etikk og verdier i laboratoriet | Druglitrø 2012,  Rader 2004 (+ Haraway) |
| 21. sep | Hilde Reinertsen(IKKE BEKREFTET) | Ekskursjon 3: NDEVOR, UiO (Hjerneforskningslaboratorium) | - |
| 22. sep.10:15–12:00 | Tone Druglitrø | Ut av laboratoriet: Hva skjer da? | Asdal 2011 (kap 1), Callon 1984, Felt & Fochler 2012, Latour 1987 |
|  |  | ***Uke 4: Hvor ligger makten?*** ***Vitenskap, teknologi og politikk*** |  |
| 26. sep.10:15–12:00 | Erlend Hermansen | Fra klimaforskning til klimapolitikk | Asdal 2011 (kap 6), Edwards 2010, Sundqvist et.al 2015, Wynne 2010, Callon et. al 2009 (+ Jasanoff) |
| 27. sep.10:15–12:00 | Hilde Reinertsen | Politikkens teknologier | Asdal 2011 (kap 2,3,4,7), Foucault 2002, Law 2008, Singleton 2012 |
| 29. sep.10:15–12:00 | Hilde Reinertsen | Oppsummering: STS som verktøy for å studere vitenskap, teknologi og politikk | - |
| 30.sep–7.okt |  | ***Uke 5:*** ***STS-essay*** |  |
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**Module 3: Introduction to innovation studies.**

**Coordinator:** Fulvio Castellacci & Håkon Normann

**Module duration:** 4 weeks + 1 week essay.

**Period:** weeks 41-44.

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| **Dato** | **Hvem** | **Tema** | **Pensum (forslag)** |
|  |  | ***Uke 41:*** ***The field of innovation studies*** |  |
| 10. okt10:15–12:00 | Fulvio Castellacci | Introduction: overview and objectives of this module |  |
| 10. okt10:15–12:00 | Jan Fagerberg (To be confirmed) | Studies of creation and use of knowledge: Innovation as a multi-disciplinary field |  |
| 10. okt10:15–12:00 | Jan Fagerberg (To be confirmed) | Schumpeter and evolutionary economics |  |
| 14. okt10:15–12:00 | Magnus Gulbrandsen | Types of innovation and how we measure them |  |
|  |  | ***Uke 42:*** ***Innovation at the firm-level*** |  |
| 17. okt10:15–12:00 | Fulvio Castellacci | Innovation in firms: concepts and microfoundations |  |
| 18. okt10:15–12:00 | Fulvio Castellacci | Modelling innovation and research and development  |  |
| 20. okt10:15–12:00 | Magnus Gulbrandsen | Management of innovation and R&D |  |
| 21. okt | Vegard Tveito & Jarle Hildrum (To be confirmed) | Study visit: Telenor |  |
|  |  | ***Uke 43:*** ***Innovation in systems*** |  |
| 24. okt10:15–12:00 | Håkon Normann | The innovation system approach |  |
| 25. okt10:15–12:00 | Håkon Normann | Innovation in sectoral and technological systems |  |
| 27. okt10:15–12:00 | Håkon Normann | Innovation and sustainability transitions |  |
| 28. okt10:15–12:00 | Håkon Normann | Video / documentary & debate |  |
|  |  | ***Uke 44:*** ***R&D and innovation policy*** |  |
| 31. okt10:15–12:00 | Jan Fagerberg (To be confirmed) | Innovation policy: Evolutionary and neoclassical perspectives |  |
| 1. nov10:15–12:00 | Jan Fagerberg (To be confirmed) | R&D and innovation policy: the Norwegian case |  |
| 3. nov10:15–12:00 | Fulvio Castellacci & Håkon Normann | Conclusion: summary and group tasks |  |
| 4. nov | Håkon Normann(To be confirmed) | Study visit: Research Council of Norway |  |
| 4.nov-11. nov |  | ***Uke 45:*** ***Innovation-essay*** |  |

**Module 4: Introduction to empirical data and methods.**

**Coordinator:** Fulvio Castellacci

**Module duration:** 3 weeks.

**Period:** weeks 46-48.

**Content:** This is a new module that has the objective to provide a general and accessible introduction to some of the more popular empirical approaches that are currently used in science, technology and innovation studies. The module is not intended to be a full introduction to empirical methods (which the students will have in the spring semester), but rather an easy and comprehensive overview to show the students the different ways in which researchers in these fields gather empirical data and analyze them empirically. Specifically, the idea that each lecture will focus on one classical paper published in the literature, and explain what empirical approach and practical steps have been done to produce that research.

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| **Dato** | **Hvem** | **Tema** | **Pensum (forslag)** |
|  |  | ***Uke 46:*** ***Qualitative data and methods (I)*** |  |
| 14. nov9:15-10:00 | Fulvio Castellacci | Overview and objectives of this module |  |
| 14. nov10:15–12:00 | Taran Thune | Design of case studies |  |
| 15. nov10:15–12:00 | Jakoba Gonzalez | Interview-based research |  |
| 17. nov10:15–12:00 | Hilde Reinertsen | Document and archival analysis |  |
|  |  | ***Uke 47:*** ***Qualitative data and methods (II)*** |  |
| 21. nov10:15–12:00 | Tone Druglitrø | Actor-network theory and empirical applications |  |
| 22. nov10:15–12:00 | Susanne Bauer | Digital sources and big data |  |
| 24. nov | Tone Druglitrø(To be confirmed) | Group work or study visit |  |
| 25. nov9:15–12:00 | All TIK’s project leaders | Presentation of TIK research projects |  |
|  |  | ***Uke 48:*** ***Quantitative data and methods*** |  |
| 28. nov10:15–12:00 | Fulvio Castellacci (examples: Artur, Simen, Christine) | Main data sources in STI studies |  |
| 29. nov10:15–12:00 | Christine Mee Lie | Descriptive analysis of statistical data: an introduction |  |
| 1. des10:15–12:00 | Fulvio Castellacci | Regression analysis in STI studies: an introduction |  |
| 2. des10:15–12:00 | Fulvio Castellacci | Summary and group tasks |  |
| 2. des13:15–14:00 | Kristin Asdal and Magnus Gulbrandsen(To be confirmed) | Presentation of the spring specialization courses |  |
| 9.des-16.des |  | ***Uke 50:*** ***Final exam course TIK4001*** |  |

**Pensum / Reference list**

**To be added by the end of June**