**WCE–RAN Schedule — 1st Year**

**Autumn 2019**
**Periods 1-2**

- **Numerical Matrix Analysis** (5 cr, 1 p)
- **Statistical Signal Processing I** (5 cr, 1 p)
- **Wireless Commun. I** (5 cr, 1 p)
- **Introduction to Optimization** (5 cr, 2 p)
- **Communications Networks I** (5 cr, 2 p)
- **Radio Channels** (5 cr, 2 p)
- **Simulations & Tools for Telecom.** (5 cr, 2 p)

**Spring 2020**
**Periods 3-4**

- **Communications Networks II** (7 cr, 3-4 p)
- **Statistical Signal Processing II** (5 cr, 3 p)
- **Antennas** (5 cr, 4 p)
- **Wireless Body Area networks** (5 cr, 3-4 p)
- **Advanced Practical Training** (3 cr)

**Finnish Language studies** (2-10 cr), and/or optional studies depending on personal study plan (PSP)

**Basic Studies** (all 40 cr obligatory)

**Advanced Studies** (choose ≥ 33 cr)

**Optional Studies** (choose ≥ 17 cr)

*) = will be lectured on even years (2020, 2022)  
**) = will be lectured on odd years (2021, 2023)
<table>
<thead>
<tr>
<th>WCE–RAN Schedule — 2nd Year</th>
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<tbody>
<tr>
<td>Autumn 2020 Periods 1-2</td>
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<tr>
<td>Telecommunication Engineering Project (5 cr) or Electronics Design and Construction Exercise (6 cr, 1-2 p) (one of these is obligatory)</td>
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<tr>
<td>Convex Optimization (7 cr, 1-2 p) (*)</td>
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<td>Statistical Commun. Theory (7 cr, 1-2 p) (*)</td>
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<td>Information Theory (5 cr, 1 p) (*)</td>
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<td>Multiantenna Commun. (5 cr, 1 p) **)</td>
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<td>(not available for student group 2019-2021)</td>
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<tr>
<td>Radio Engineering I (5 cr, 2 p)</td>
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<tr>
<td>Signal Processing Systems (5 cr, 2 p)</td>
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<tr>
<td>Channel Coding &amp; Modul. (5 cr, 1p) **)</td>
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<tr>
<td>(not available for student group 2019-2021)</td>
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<td>Spring 2021 Periods 3-4</td>
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<tr>
<td>Master’s Thesis Work, Maturity Test, Seminar (30 cr, 3-4 p)</td>
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<tr>
<td>Commun. Signal Proc. (5 cr, 4 p) **)</td>
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WCE–RF Schedule — 1st Year

Autumn 2019
Periods 1-2

- Statistical Signal Processing I (5 cr, 1 p)
- Radio Engineering I (5 cr, 2 p)
- Electronics Design II (6 cr, 1 p)
- Wireless Commun. I (5 cr, 1 p)

Spring 2020
Periods 3-4

- Statistical Signal Processing II (5 cr, 3 p)
- Electronics Design III (6 cr, 2 p)
- Radio Engineering II (6 cr, 3 p)
- Radio Channels (5 cr, 2 p)
- Antennas (5 cr, 4 p)
- Microel. & Packaging Technologies (5 cr, 3 p)

- Advanced Practical Training (3 cr)
  (recommended in summer 2020, training report will be done on autumn 2020 term)

Finnish Language studies (2-10 cr), and/or optional studies depending on personal study plan (PSP)

Basic Studies (all 36 cr obligatory)
Advanced Studies (choose ≥ 36/37 cr)
Optional Studies (choose ≥ 12/13 cr)

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WCE–RF Schedule — 2nd Year

Autumn 2020
Periods 1-2

- Telecommunication Engineering Project (5 cr)
- or Electronics Design and Construction Exercise (6 cr, 1-2 p) (one of these is obligatory)
- Electronic System Design (5 cr, 1 p)
- Telecommunications Circuit Design (6 cr, 1 p)
- Finnish Language studies (2-10 cr), and/or optional studies depending on personal study plan (PSP)

Spring 2021
Periods 3-4

- Master’s Thesis Work, Maturity Test, Seminar (30 cr, 3-4 p)
- Basic Studies (all 36 cr obligatory)
- Advanced Studies (choose ≥ 36/37 cr)
- Optional Studies (choose ≥ 12/13 cr)

*) = will be lectured on even years (2020, 2022)  ***) = will be lectured on odd years (2021, 2023)