

**MODULE MAP**, Degree Programme in Information and Communication Technology, Bioeconomy  
Academic year 2020-2021

**Core modules** 15 cr, 165 cr in total

**Profiling modules** 15 cr, 75 cr in total

**1st module**  
24.8.-23.10.2020

**2nd module**  
26.10.-18.12.2020

**3rd module**  
11.1.-12.3.2021

**4th module**  
15.3.-7.5.2021

**Summer period**  
10.5.-31.8.2021

**BEBEP20A2**

**Working in Bioeconomy**  
BB00C007  
Ira Bhattarai / Ari Hietala

**Circular Bioeconomy**  
BB00C016  
Johanna Salmia

**Smart Bioeconomy**  
BB00C020  
Johanna Salmia

**Data Analytics**  
BB00C030  
Anne-Mari Järvenpää

**Work Placement**  
Johanna Salmia

**BEBEP20X2**

**Startup Business School**  
School of Entrepreneurship  
and Business  
**or your module choice**

**Work Placement**  
Johanna Salmia  
**or your module choice**

**Academic  
year  
2021-2022**

**CSchool of Business  
Design**  
School of Entrepreneurship  
and Business

**IOT Platforms**  
Ari Hietala

**Smart Sensors**  
Ari Hietala

**Cloud Services**  
Johanna Salmia

**Startup Business School**  
School of Entrepreneurship  
and Business

**Academic  
years  
2022-2023  
2023-2024**

**Mobile Applications**  
Marko Grönfors / Johanna  
Salmia

**GIS and Smart Logistics**  
Anne-Mari Järvenpää

**3D Modelling and printing**  
Ari Hietala

**Development project**  
Anne-Mari Järvenpää

**Professional Skills**

**Work placement, Johanna Salmia**

**Thesis, Anne-Mari Järvenpää**

**Other studies,**  
e.g. Campusonline