Full master SEC (second year)
(Educational track)

Aangeboden door: Eindhoven School of Education (ESoE)
Taal: English / Nederlands
Doelgroep: Students must be registered for the master Science Education and Communication (full program)
Voorkennis: Sufficient content knowledge concerning the (school) subject chosen
Contact: mw. Dr. Marloes de Bruin ESoE.coordinator@tue.nl

NB: This package is part of the teacher training trajectory for a Dutch degree ‘1st graads leraar’. It is open for master students and PhD’s seeking to deepen their knowledge and competence in Science, Technology, Engineering and Mathematics (STEM) education by doing practical research: www.esoe.nl

Content
This package comprises a series of subjects and activities that together with the educational packages 1 through 4 makes you two year Science Education and Communication program complete. In short:

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<th>Code</th>
<th>Subject</th>
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<td>EME42</td>
<td>Subject content courses</td>
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<td>EME36</td>
<td>International Research Project</td>
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<td>School practical (teaching) P5</td>
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Subjects
A large part of this package comprises subject courses. If you are studying to complete a Dutch degree for secondary school teachers for a particular subject, these courses must be in this field. The subjects must under any circumstances be approved by the ESoE examination board.

The international research project is usually combined with ‘Practical Educational Research – project’ (EME41) to create one integrated project. The project should focus on STEM-education (STEM = Science, Technology, Engineering and Mathematics). It is typically used to create a ‘stay abroad’ for instance at one of the ESoE partner institutions. School practical P5
offers the opportunity to relate the research project closely to in school-practice. In case of an international stay, this component can also be international. For this approval of the ESoE examination committee is needed, in particular for candidates that want to acquire a Dutch teaching degree.

Educational research is a vivid branch in the STEM domain in particular that rapidly internationalizes. Results of this research help teachers to better understand the thinking of their students, and to be more effective in making them learn. Key issues in this field of research are: teaching experimental skills, conceptual understanding, mastering subject thinking methods, what to teach and why?, involving students in STEM subjects and making them enthusiastic. Guidance is provided on the full/associated/assistant professor level.