


# Virtual Exchange Global Alliance



TU Delft		Solar Energy (UD9002)		
<b>Course description</b>	This course introduces the technology that converts solar energy into electricity, heat and solar fuels with a main focus on electricity generation.			
<b>Domain</b>	engineering			
<b>Prerequisites</b>	Basic knowledge of physics and mathematical skills, such as integration and differentiation, are preferred.			
<b>Level</b>	3 <sup>rd</sup> year bachelor			
<b>Language</b>	English			
<b>Number of credits and workload</b>	2 credits	8 hrs per week	64 hrs in total	
<b>Semester period and Start date course</b>	TBA			
<b>Application deadline</b>	TBA			
<b>Full course description</b>	<p>In the third edition of Solar Energy, you will learn to design a complete photovoltaic system. This course introduces the technology that converts solar energy into electricity, heat and solar fuels with a main focus on electricity generation. Photovoltaic (PV) devices are presented as advanced semiconductor devices that deliver electricity directly from sunlight. The emphasis is on understanding the working principle of a solar cell, fabrication of solar cells, PV module construction and the design of a PV system. You will gain a greater understanding of the principles of the photovoltaic conversion– the conversion of light into electricity. This course explores the advantages, limitations and challenges of different solar cell technologies, such as crystalline silicon solar cell technology, thin film solar cell technologies and the latest novel solar cell concepts as studied on lab-scale. We will discuss the specifications of solar modules and demonstrate how to design a complete solar system for any particular application.</p>			

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Platform and link to course description	EdX	<a href="https://www.edx.org/course/solar-energy-delftx-et3034x-0">https://www.edx.org/course/solar-energy-delftx-et3034x-0</a>
Course description in study guide	<a href="http://www.studiegids.tudelft.nl/a101_displayCourse.do?course_id=44260">http://www.studiegids.tudelft.nl/a101_displayCourse.do?course_id=44260</a>	
Lecturer(s)	Arno Smets	
Picture of course		
Final examination date and time /period	To be announced	
Examination registration deadline or drop-out deadline	Examination registration before: TBA Drop- out deadline: TBA	
Type of examination	Written exam, proctored. Combination open questions and multiple choice questions	
Midterm examination?	<input type="checkbox"/> yes <input type="checkbox"/> no	
Previous exam papers available	<input type="checkbox"/> yes <input type="checkbox"/> no	
Specific rules for examinations		
Resit? and date	<input type="checkbox"/> yes <input type="checkbox"/> no	
Grade release and transcript release	TBA	

