



## BSc minor WUILW International Land and Water Management

This BSc minor is an introduction to the field of International Land and Water Management. Proper management of land and water is essential for achieving sufficient and sustainable food production and food security worldwide. A large part of the world's arable land is used for rain-fed agriculture and the other part is under irrigated cultivation for which more than 70% of the world's fresh water is used.

You get to understand crop water requirements, how to quantify them and translate these into water demands over a growing season, taking into account the available rainfall and various possible types of irrigation water provision.

Land, both rain-fed and irrigated, is prone to degradation. Loss of soil and soil fertility through erosion or unsustainable farming practices threatens food production and farm income. Food security obviously is not only a matter of production, it is also a matter of distribution and access and therefore determined by (geo-)politics including processing, trade regulations and pricing policies.

### BSc Minor coordinator

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### Learning outcomes

After successful completion of this minor students are expected to be able to:

- calculate crop water requirements, irrigation demands and the relation between irrigation technology and its social and institutional context;
- recognize and quantify some forms of soil erosion and master the principles of soil and water conservation;
- analyse situations of food insecurity in different contexts;
- understand the relationship between land and water management and food production, sustainability and global food security;
- apply elementary Geo Information Science skills or to analyse the prospects of adaptation to climate change.

Code and name of the courses	Period, MO/AF	CS or RO*
1. <a href="#">IWE-10306</a> Irrigation & Water Management	1 MO	CS
2. <a href="#">LDD-10306</a> Land Degradation and Soil & Water Conservation	1 AF	CS
3. <a href="#">YSD-50806</a> Global Food Security	2 MO	CS
4. <a href="#">GRS-10306</a> Introduction Geo-information Science	3 MO+AF	RO
5. <a href="#">LDD-51306</a> Adaptation to Climate Change in Developing Countries	3 MO+AF	RO

### RO information

Students should take GRS-10306, unless this is part of their programme. In that case they should take LDD-51306.

\* CS = Compulsory, RO= Restricted Optional



**Target group**

This minor is interesting for WU-students of the BSc programmes:

BBW Soil, Water, Atmosphere

BIN International Development Studies

BBN Forest and Nature Conservation

BGM Health and Society

BLP Landscape Architecture and Planning

BMW Environmental Sciences

BPW Plant Sciences.

**Overlapping courses or content with**

BIL International Land and Water Management

**Language**

English is possible, contact minor coordinator.

**More information about WU BSc minors?**

[www.wageningenur.nl/minors](http://www.wageningenur.nl/minors)

