

## COURSE ON

# INVENTORY AND MODELLING IN COMPLEX FORESTS

### Program and Schedule

#### Monday, June 6<sup>th</sup>, 2016

09.30 – 09.45 Participant arrival & registration  
09.45 – 10.00 Course Opening  
10.00 – 11.30 Introduction, Bitterlich sampling, Horizontal sampling, "Sausage" sampling, Distance sampling (Mark J. Ducey)  
11.30 – 12.00 Coffee Break  
12.00 – 13.30 Uses of forest growth models and the difference general approaches: Size Class Models, Tree level models. Tree static equations (biomass, volume, crown width, and total height) (Aaron R. Weiskittel)  
13:30:15:00 - Break (Lunch)  
15:00: 16:30: Functional-structural tree models (Sven Mutke)  
16:30: 18:00: Beyond timber: empirical modelling of ecophysiological and forest dynamic processes (Rafael Calama)

#### Tuesday, June 7<sup>th</sup>, 2016

09:30- 11.00 Modelling tree increment, Mortality Models (stand and tree level), Natural Regeneration Models. (Aaron R. Weiskittel)  
11.00 – 11.30 Coffee Break  
11:30 – 13.30 Sampling fallen dead wood: Line intersect sampling (Mark J. Ducey)  
13:30:15:00 - Break (Lunch)  
15:00: 16:30: Modeling Forest Management (thinning, fertilization, and vegetation control) (Aaron R. Weiskittel)  
16:30: 17:30: Stand Density Management Diagrams in Mixed Forests (Felipe Bravo)

#### Wednesday, June 8<sup>th</sup>, 2016

09:30 – 11.00 Model construction (necessary data, current statistical methods, and approaches to use) (Aaron R. Weiskittel)  
11.00 – 11.30 Coffee Break  
11:30 – 12.30 Density index: Basal Area, Relative Spacing, and Reineke's Stand Density Index. (Mark J. Ducey)  
12:30 - 13:30 Structural diversity and productivity of mixed forests (Andrés Bravo)

13:30:15:00 - Break (Lunch)

15:00: 16:30: Complex mixtures and functional traits. (Mark J. Ducey)

16:30: 18:00: Model Evaluation (quantitative and qualitative methods for testing model performance) (Aaron R. Weiskittel)

18:00 Wrap-up

**Instructors:**

Prof. Aaron R. Weiskittel (University of Maine, USA)

Prof. Mark Ducey (University of New Hampshire, USA)

Dr. Rafael Calama (iFOR & INIA-CIFOR, Spain)

Dr. Sven Mutke (iFOR & INIA-CIFOR, Spain)

Prof. Felipe Bravo (iFOR & University of Valladolid, Spain), Coordinator

Dr. Andrés Bravo-Oviedo (iFOR & INIA-CIFOR, Spain), Coordinator

**Organized by** Programa de Doctorado en Conservación y Uso Sostenible de Sistemas Forestales

**Collaborate:**

Programa de Doctorado en Matemáticas



**Place, day and schedule**

ETS Ingenierías Agrarias Campus de Palencia (Universidad de Valladolid)

(<https://goo.gl/maps/MRCthah21UM2>, Aulario building, Class room TBA) 2016

Monday June 6<sup>th</sup> to Wednesday 8<sup>th</sup>

**Lodging and other information**

Please see this map:

<https://www.google.com/maps/d/edit?mid=zgHfWUSkLqEc.kR9swG8qsufA&usp=sharing>

Bus service routes (within Palencia):

[http://www.aytopalencia.es/sites/default/files/plano\\_palencia\\_urbano\\_e\\_interurbano.pdf](http://www.aytopalencia.es/sites/default/files/plano_palencia_urbano_e_interurbano.pdf)