International MS Education and Dual Degrees in Forestry: The Atlantis Program

Bronson P. Bullock, Ph.D.
Associate Professor of Forest Biometrics & Timber Management
Department of Forestry and Environmental Resources
College of Natural Resources
North Carolina State University

Patti H. Clayton, Ph.D.
Consultant, PHC Ventures & Senior Scholar, IUPUI
Cary, NC

Email: Bronson_Bullock@ncsu.edu
Email: patti.clayton@curricularengagement.com
Why International Graduate Education?

- **Student perspectives:**
  - Professional development re: global context of the work
- **Faculty perspectives:**
  - Enhanced collaboration among colleagues with different areas of expertise
- **Institution perspectives:**
  - Global partnerships; international presence
- **Field perspectives:**
  - Enhanced global / inter-cultural capacities among practitioners
What is the Atlantis Program?

- Transatlantic Master's Degree in Forest Resources

- Exchange of American and European Master's students, leading to dual (double) Master's degrees, i.e. the successful students will obtain two MS diplomas, one from a US and one from an EU university.

- Funded by the U.S. Department of Education, Fund for the Improvement of Postsecondary Education (FIPSE) and by the EU - European Commission, Education, Audiovisual and Culture Executive Agency (EACEA).
Academic Partners

- North Carolina State University (NCSU)
- Swedish University of Agricultural Sciences (SLU)
- Michigan Technological University (MTU)
- University of Helsinki (UH)
EU and US Students

- 2 years of studies (4 semesters)
- One semester at the Swedish University of Agricultural Sciences (SLU)
- One semester at the University of Helsinki (UH)
- Two semesters (one study year) at either North Carolina State University (NCSU) or Michigan Technological University (MTU).
Eligibility

- Eligible students must be citizens of the EU or third-country nationals who have been legal residents in the EU for at least three years before the start of the outgoing mobility. US students must be US citizens.

- Eligible applicants must be students currently majoring in forestry (or applying for an MS) at one of the partner universities.

- Students must be proficient in English
Student Funding - €€€ or $$$

- Fellowship stipend
  - €12,000/academic year for European students
  - $12,000/academic year for US students

- Fellowship is for one year of studies on the other side of Atlantic; EU students will not be charged tuition or fees at the US institution.
Thesis

• For a dual degree, students must comply with thesis requirements at both awarding universities.

• To enable a dual degree (double diploma), Consortium partners will ensure joint supervision of the thesis work from the two awarding universities, one each in the US and EU.

• The thesis will be presented publicly at one of the universities; videoconferencing software will be used to have a simultaneous presentation at the partner university.
Thesis Research Topics

- Whenever possible, students will be strongly encouraged to adopt a comparative EU-US perspective in their Master theses.

- Can be on any forest resource topic, as long as it is approved by the advisors in the US and EU.

- We help the students find an appropriate academic advisor at the US and EU universities.
Faculty Mobility Grants

- Faculty members at all partner institutions will be encouraged to take part in the exchange for up to the maximum of 8 weeks each.

- We hope for approximately 2-8 participants per university receiving mobility grants each year.

- EU or US faculty members will get 1000 € or $ /week plus 1000 € or $ travel grant for exchanges across the Atlantic.
Faculty Mobility Grants

- Collaboration can come in many forms:
  - Co-teaching a class
  - Guest lectures
  - Research seminars
  - Collaborative Research
  - Working with faculty on the other side of the Atlantic and either EU or US students on the student thesis project
  - Field tours of research sites and operational sites
Benefits of Dual MS Degrees

- Graduates will be capable of coming up with innovative solutions for North American, European, and global forestry issues.

- Graduates will possess professional knowledge, language and intercultural communication skills invaluable for successful careers in international environments.

- Training at several different highly ranked forestry schools

- Mentoring from faculty in different countries
Challenges of Dual MS Degrees

- Initial establishment of dual degree
  - MOU’s
  - Student Exchange Agreements
  - Dual Degree Agreements
- Administration
- Application review and admission
- Logistical details
- Theses advisors
- Time to completion (2 years)
Evaluation of Atlantis Project

- Focusing on student outcomes (vs. faculty, institutional)
- Assessing student outcomes
  - Retention, grades, etc.
  - Change in 4 areas
    - Critical thinking, leadership, collaboration, inter-cultural
    - Self report scale + problem-based narrative
  - 3 times over the course of their graduate program
    - Pre
    - Mid
    - Post
- Control and “treatment” group (IRB Forms)
Part I: In approximately 250 words (one double spaced page, in total), please

• Explain in your own words what you believe to be the most important global issue facing the forestry profession today.

• Discuss how you think this issue should be resolved: What needs to be learned, who should be involved in working on it, what should be done to resolve it, what challenges will need to be overcome, etc.
Evaluation Cont.

**Critical Thinking Items** (strongly disagree (1) – strongly agree (6)

- When I look back over the past six months at times I have thought about a complex forestry question, I usually examined it from multiple perspectives before reaching my own judgment.

- When I look back over the past six months at times I have discussed complex forestry issues with others, my ability to express my ideas clearly to others helped us have a successful exchange of ideas.

- When I look back over the past six months at times I have taken a stance on issues related to forestry, I often found it difficult to provide evidence in support of my position.
Please continue your discussion of the most important global issue facing the forestry profession today you identified earlier (approximately 100 words – the box will expand onto the next page as needed): In what specific ways does your own thinking need to change in order for you to contribute effectively to resolving this issue?
Evaluation Cont.

Leadership Items (strongly disagree (1) – strongly agree (6)

- When I look back over the past six months at times I have collaborated with others on issues related to forestry, I rarely drew on my strengths as a leader.

- When I look back over the past six months, I frequently felt that having a significant impact on forestry-related issues was within my reach.

- When I look back over the past six months at times I have collaborated with others on issues related to forestry, I generally held myself accountable when the collaboration didn’t go well.
Please continue your discussion of the most important global issue facing the forestry profession today you identified earlier (approximately 100 words – the box will expand onto the next page as needed): In what specific ways does your own thinking need to change in order for you to contribute effectively to resolving this issue?
Part III: In approximately 250 words (one double spaced page, in total), please project 10 years into the future:

- What do you believe the status of the most important global issue facing the forestry profession today you identified earlier will be in ten years? Why? And, what (other) issue do you believe will be one of the most important global issues facing the forestry profession in ten years? Why?

- If in the coming years you successfully grow as a forestry professional in the ways you discussed previously (in your thinking, in your leadership abilities, in your teamwork abilities, and in your abilities to work across cultural differences), how, specifically, will these improved abilities help you contribute effectively to resolving what you believe will be the most important global issue facing the forestry profession ten years from now?
Evaluation Cont.

- Data analysis
- Recommendations for change
- Improvement of program impact
- Annual evaluation reports to funding agencies
- Final evaluation report to funding agencies
Questions??

- More Info online: http://cnr.ncsu.edu/fer/atlantis/index.html
- Bronson_Bullock@ncsu.edu
- patti.clayton@curriculumengagement.com