

# UNDERGRADUATE PROGRAM CURRICULUM FORESTRY – USP/ESALQ 2017

| Courses are sorted by recommended completion sequence |   | Credits   |          |           | Hours      |          |
|---|---|-----------|----------|-----------|------------|----------|
| Mandatory Courses                                     |   | In class  | Workload | Total     | Total      | Semester |
| <b>First Semester - Total</b>                         |   | <b>30</b> | <b>0</b> | <b>30</b> | <b>450</b> |          |
| LCB0103   | Plant Morphology  | 4         | 0        | 4         | 60         | 1        |
| LCE0108   | Inorganic and Analytical Chemistry  | 6         | 0        | 6         | 90         | 1        |
| LCE0120   | Calculus I  | 4         | 0        | 4         | 60         | 1        |
| LCF0106   | Introduction to Forestry Engineering  | 3         | 1        | 4         | 75         | 1        |
| LCF0130   | Solutions to Forest Problems  | 2         | 1        | 3         | 60         | 1        |
| LFN0212   | General Zoology and Parasitology  | 2         | 0        | 2         | 30         | 1        |
| LGN0114   | Cell Biology  | 3         | 1        | 4         | 75         | 1        |
| <b>First Semester - Total</b>                         |   | <b>24</b> | <b>3</b> | <b>27</b> | <b>450</b> |          |
| LCB0206   | Forest Systematic Botany<br><i>LCB0103 - Plant Morphology</i>   | 4         | 1        | 5         | 90         | 2        |
| LCB0208   | Biochemistry  | 4         | 0        | 4         | 60         | 2        |
| LCE0220   | Calculus II<br><i>LCE0120 - Calculus I</i>  | 4         | 0        | 4         | 60         | 2        |
| LCF0156   | Forest Production Chains  | 2         | 1        | 3         | 60         | 2        |
| LCF0491   | Forest Ecology<br><i>LCF0106 - Introduction to Forestry Engineering</i>   | 4         | 1        | 5         | 90         | 2        |
| LES0130   | Issues of Science History and Methodology   | 2         | 0        | 2         | 30         | 2        |
| LGN0215   | Genetics<br><i>LGN0114 - Cell Biology</i>   | 3         | 1        | 4         | 75         | 2        |
| LGN0232   | Molecular Genetics<br><i>LGN0114 - Cell Biology</i>   | 2         | 0        | 2         | 30         | 2        |
| LSO0210   | Geology Applied to Soils<br><i>LCE0108 - Inorganic and Analytical Chemistry</i>   | 2         | 0        | 2         | 30         | 2        |
| <b>Second Semester - Total</b>                        |   | <b>27</b> | <b>4</b> | <b>31</b> | <b>525</b> |          |
| LCE0216   | Introduction to Forest Biostatistics<br><i>LCE0220 - Calculus II</i>  | 4         | 0        | 4         | 60         | 3        |
| LCF0225   | Dendrology and Wood Biology<br><i>LCB0206 - Forest Systematic Botany</i>  | 3         | 1        | 4         | 75         | 3        |
| LCF0324   | Tree Physiology<br><i>LCB0206 - Forest Systematic Botany</i><br><i>LCB0208 - Biochemistry</i>                                   | 3         | 1        | 4         | 75         | 3        |
| LEB0200   | Agro-environmental Physics<br><i>LCE0106 – Differential and Integral Calculus</i><br><i>LCE0220 - Calculus II</i>               | 4         | 0        | 4         | 60         | 3        |
| LEB0340   | Land Surveying and Geoprocessing I  | 6         | 0        | 6         | 90         | 3        |
| LFN0321   | Microbiology<br><i>LGN0114 - Cell Biology</i>   | 4         | 0        | 4         | 60         | 3        |
| LSO0300   | Soil Chemistry and Fertility<br><i>LSO0210 - Geology Applied to Soils</i>   | 4         | 0        | 4         | 60         | 3        |
| LSO0310   | Soil Physics<br><i>LSO0210 - Geology Applied to Soils</i>   | 2         | 0        | 2         | 30         | 3        |
| <b>Third Semester - Total</b>                         |   | <b>30</b> | <b>2</b> | <b>32</b> | <b>510</b> |          |
| LCF0522   | Principles and Applications of Wood Physics<br><i>LCF0225 - Dendrology and Wood Biology</i>                                     | 3         | 1        | 4         | 75         | 4        |
| LCF0681   | Forest Seed Biology and Production<br><i>LCF0324 - Tree Physiology</i><br><i>LCF0491 - Forest Ecology</i>                       | 3         | 1        | 4         | 75         | 4        |
| LEA0221   | Forest Entomology<br><i>LCF0106 - Introduction to Forestry Engineering</i><br><i>LFN0212 - General Zoology and Parasitology</i> | 5         | 0        | 5         | 75         | 4        |
| LEB0408   | Forest Meteorology<br><i>LEB0200 - Agro-environmental Physics</i>   | 4         | 0        | 4         | 60         | 4        |
| LEB0450   | Land Surveying and Geoprocessing II<br><i>LEB0340 - Land Surveying and Geoprocessing I</i>                                      | 5         | 0        | 5         | 75         | 4        |
| LFN0425   | Forest Pathology<br><i>LFN0321 - Microbiology</i>   | 4         | 0        | 4         | 60         | 4        |
| LSO0400   | Soil Biology<br><i>LFN0321 - Microbiology</i><br><i>LSO0300 - Soil Chemistry and Fertility</i>                                  | 2         | 0        | 2         | 30         | 4        |
| LSO0410   | Soil Genesis, Morphology and Classification<br><i>LSO0300 – Soil Chemistry and Fertility</i><br><i>LSO0310 – Soil Physics</i>   | 4         | 0        | 4         | 60         | 4        |
| <b>Fourth Semester - Total</b>                        |   | <b>30</b> | <b>2</b> | <b>32</b> | <b>510</b> |          |

| Courses are sorted by recommended completion sequence |   | In class   | Credits   |            | Total hours | Semester |
|---|---|------------|-----------|------------|-------------|----------|
| Mandatory Courses                                     |   |            | Workload  | Total      |             |          |
| LCF0335   | Principles and Applications of Forest Products Chemistry I<br><i>LCF0225 - Dendrology and Wood Biology</i>  | 3          | 1         | 4          | 75          | 5        |
| LCF0410   | Forest Mensuration<br><i>LCE0216 - Introduction to Forest Biostatistics</i>   | 4          | 1         | 5          | 90          | 5        |
| LCF0493   | Tropical Forestry<br><i>LCF0681 - Forest Seed Biology and Production</i>  | 3          | 1         | 4          | 75          | 5        |
| LCF0621   | Establishment and Regeneration of Forest Plantations<br><i>LSO0300 - Soil Chemistry and Fertility</i><br><i>LSO0310 - Soil Physics</i>  | 4          | 1         | 5          | 90          | 5        |
| LCF0720   | Forest Nursery<br><i>LCF0681 - Forest Seed Biology and Production</i>   | 3          | 1         | 4          | 75          | 5        |
| LEB0332   | Mechanics and Power Units in Agriculture<br><i>LEB0340 - Land Surveying and Geoprocessing I</i>   | 2          | 0         | 2          | 30          | 5        |
| LES0129   | Sociology and Extension<br><i>LCF0681 - Forest Seed Biology and Production</i>  | 4          | 0         | 4          | 60          | 5/6      |
| <b>Fifth Semester - Total</b>                         |   | <b>23</b>  | <b>5</b>  | <b>28</b>  | <b>495</b>  |          |
| LCF0510   | Forest Inventory<br><i>LCF0410 - Forest Mensuration</i>   | 4          | 1         | 5          | 90          | 6        |
| LCF0623   | Mechanical Properties and Wood Structures<br><i>LCF0522 - Principles and Applications of Wood Physics</i>   | 4          | 1         | 5          | 90          | 6        |
| LCF0650   | Forest Product Industrialization I<br><i>LCF0623 - Mechanical Properties and Wood Structures</i>  | 2          | 1         | 3          | 60          | 6        |
| LCF0676   | Forest Improvement I<br><i>LCF0491 - Forest Ecology</i><br><i>LGN0215 - Genetics</i>  | 4          | 0         | 4          | 60          | 6        |
| LCF0679   | Forest Administration, Public Policies and Legislation<br><i>LES0129 - Sociology and Extension</i>  | 3          | 1         | 4          | 75          | 6        |
| <b>Sixth Semester - Total</b>                         |   | <b>17</b>  | <b>4</b>  | <b>21</b>  | <b>375</b>  |          |
| LCF0445   | Principles and Applications of Forest Products Chemistry II<br><i>LCF0335 - Principles and Applications of Forest Products Chemistry I</i>  | 3          | 1         | 4          | 75          | 7        |
| LCF0670   | Forest Product Processing II<br><i>LCF0225 - Dendrology and Wood Biology</i><br><i>LCF0335 - Principles and Applications of Forest Products Chemistry I</i><br><i>LCF0522 - Principles and Applications of Wood Physics</i> | 4          | 1         | 5          | 90          | 7        |
| LCF0678   | Forest Watershed Management<br><i>LCF0621 - Establishment and Regeneration of Forest Plantations</i>  | 3          | 1         | 4          | 75          | 7        |
| LCF0685   | Economics of Forest Resources<br><i>LCE0106 - Differential and Integral Calculus</i><br><i>LCE0220 - Calculus II</i>  | 3          | 1         | 4          | 75          | 7        |
| LCF0691   | Conservation and Protected Areas Management<br><i>LCF0491 - Forest Ecology</i>  | 4          | 1         | 5          | 90          | 7        |
| LEB0418   | Rural Buildings and Technical Drawing<br><i>LEB0340 - Land Surveying and Geoprocessing I</i>  | 4          | 0         | 4          | 60          | 7/8      |
| <b>Seventh Semester - Total</b>                       |   | <b>21</b>  | <b>5</b>  | <b>26</b>  | <b>465</b>  |          |
| LCF0586   | Management of Forest Resources<br><i>LCF0685 - Economics of Forest Resources</i>  | 3          | 1         | 4          | 75          | 8        |
| LCF0637   | Tropical Forest Management<br><i>LCF0510 - Forest Inventory</i>   | 3          | 1         | 4          | 75          | 8        |
| LCF0683   | Harvesting and Transport of Wood<br><i>LCF0678 - Forest Watershed Management</i>  | 4          | 0         | 4          | 60          | 8        |
| LCF1680   | Regeneration and Forest Management<br><i>LCF0678 - Forest Watershed Management</i>  | 4          | 1         | 5          | 90          | 8        |
| <b>Eight Semester - Total</b>                         |   | <b>14</b>  | <b>3</b>  | <b>17</b>  | <b>300</b>  |          |
| 0112000   | Final Report in Forestry  | 2          | 8         | 10         | 270         | 9/10     |
| <b>Ninth Semester - Total</b>                         |   | <b>2</b>   | <b>8</b>  | <b>10</b>  | <b>270</b>  |          |
| <b>Grand Total</b>                                    |   | <b>188</b> | <b>36</b> | <b>224</b> | <b>3900</b> |          |

\* Courses in italics are prerequisites to courses displayed above them

Students admitted after 2007 must work 210 hours in internship courses of their own choice

**Ideal duration: 10 semesters**

**Minimum duration: 9 semesters**

**Maximum duration: 15 semesters**

**Total credits required for bachelor degree program completion: 250 (in class + workload)**

**Completion requirements for Licentiate degree in Agriculture: 250 credits (in class + workload) + # of credits required for licentiate degree.**

