PROGRAM FOR BOTANY MAJORS

DEPARTMENT OF BOTANY & PLANT PATHOLOGY

OREGON STATE UNIVERSITY

**NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Checklist of Required Courses**

**BACCALAUREATE CORE COURSES**

Courses that meet each requirement are listed in the Registration Information Handbook and the online General Catalog. If only one course meets a requirement, it is listed below.

Skills Courses (18 credits)

⁪□ Fitness (3) [HHS 231 + Option]

⁪□ Mathematics (3) [MTH 105 or higher]

⁪□ Writing I (3) [WR 121]

⁪□ Writing II (3)

⁪□ Speech (3)

⁪□ Writing Intensive Course (3-4) [Choose

one of the following: BB/BI 317, BI 371,

BOT 323, CSS 325, HSTS 415, HSTS 419,

HSTS 425, MB 311]

The following first-year Skills Courses are to be taken and completed satisfactorily within the first 45 hours of OSU-generated credits: WR I [WR 121, minimum passing grade C-]; Mathematics; Speech.

To prepare for the WIC in the major WR II is to be taken and completed satisfactorily within the first 90 hours of OSU-generated credits.

Transfer students with a sophomore standing or above, WR II and Speech must be completed within the first 45 hours of OSU-generated credits. These requirements apply to all students, whether full time or part time.

Perspective Courses (24 credits)

⁪□ Biological Science with lab (4)

⁪□ Physical Science with lab (4)

⁪□ Second Biological or Physical Science with

lab (4)

 The biology and chemistry requirements for the botany major can be used to fulfill the above requirements.

⁪□ Cultural Diversity (3)

⁪□ Literature & the Arts (3)

⁪□ Social Processes & Institutions (3)

⁪□ Western Culture (3)

Difference, Power & Discrimination Courses (3 credits)

⁪□ Difference, Power & Discrimination Course (3)

Synthesis Courses (6 credits)

The two courses used to fulfill the Synthesis requirement may not be in the same department.

⁪□ Contemporary Global Issues (3)

⁪□ Science, Technology & Society (3)

**DEPARTMENTAL REQUIREMENTS**

FOUNDATIONAL SCIENCES (66-71 credits)

Biology (20 credits)

⁪□ BI 211(4) □ BI 212 (4) □ BI 213 (4)

⁪□ BI 314 (4)

⁪□ BI 311 (4) *or* ⁪

□ PBG 430 (3) & □ PBG 431 (1)

Chemistry (27-30 credits)

⁪□ CH 231+261 (5) □ CH 232+262 (5) □ CH 233+263 (5)

 *or*  ⁪ □ CH 121 (5) □ CH 122 (5) □ CH 123 (5)

⁪□ CH 331 (4) □ CH 332 (4)

⁪□ BB 350 (4) *or* □ BB 450 (4) & □ BB 451 (3)

Quantitative Skills and Analysis (19-21 credits)

⁪□ ST 351 (4)

Mathematics – a minimum of 8 credits with a final math competency of at least MTH 112 chosen from the following courses:

⁪

□ MTH 111 (4) □ MTH 112 (4)⁪ □ MTH 231 (4)⁪

□ MTH 241 (4) □ MTH 245 (4) □ MTH 251 (4)

□ MTH 252 *or* □ MTH/FW 268

Two additional courses in MTH, ST, CS, or PH chosen from the list above or from the following list [pre-requisites shown in brackets]:

⁪

□ PH 201 (5) [MTH 112] □ PH 265 (3) [MTH 251]

□ CS 161 (4) [JAVA, MTH 112] □ CS 162 (4) [JAVA, MTH 231]⁪

□ ST 352 (4) [ST 351] □ ST 411 (4) [ST 351]

Other courses may be used if approved by advisor.

Mathematics and subsequent analysis courses are to be determined based on math placement tests and consultation with your academic advisor. MTH 251 & 252 or 268 are strongly recommended for students intending to do graduate work.

PLANT BIOLOGY CORE COURSES (27 credits)

□ BOT 220 (4)

□ BOT 313 (4)

□ BOT 321 (4)

□ BOT 331 (4)

□ BOT 332 (3)

□ BOT 341 (4) – or equivalent upper division ecology course with advisor approval

One course on non-vascular plants chose from the following: ⁪

□ BOT 461 (4)⁪ □ BOT 465 (4) □ BOT 466 (4)

Botany majors are to pursue a particular area(s) of plant biology. There are three areas of concentration: Ecology, Evolution and Conservation (EEC); Molecular, Cellular and Genomic (MCG); and Plant Pathology (PP). For each of these there are four specific required courses totaling 11-12 credits. A student must choose at least one of these areas of concentration. These are NOT transcript visible concentrations.

EEC (12 credits) MCG (11 credits) PP (13 credits)

□ BOT 442 (3) ⁪ □ BB 451 (3) ⁪ □ BOT 350 (4)

□ BOT 488 (3) ⁪ □ BOT 480 (3) or BB 494 (3) ⁪ □ ENT 311 (4)

□ FW 320 (3) ⁪ □ BI 445 (3) ⁪ □ MB 302 (3)

□ BI 445 (3) ⁪ □ BOT 475 (4) ⁪ □ MB 303 (2)

**Credit Distribution:**

 Bacc. Core Curriculum 39

 Foundational Sciences 66-71

 Plant Biology Core 27

 Area of Concentration 11-12

 143-149

 General Electives 31-37

 Total Credits 180

Other courses that can be used for major elective credit are: BOT 323, BOT 350, BOT 414, BOT 415, BOT 416, BOT 425, BOT 322 (Ecampus), BOT 440, BOT 442, BOT 475, BOT 480, BOT 488, BOT 401 – Research, BOT 407 – Seminar, BOT 410 – Internship, BOT 358, BI 358, BI 371, BI 460, BI 445, CSS 205, CSS 311, CSS 366, CSS 440, FE 430, FW 320, GEO 365, HORT 316, HORT 463, HORT 441, MB 302, MB 303, ST 435, Z 440, Z 547.

It is highly recommended that students take BOT 407 – Seminar – (1 credit) at least once (it can be taken for credit as often as necessary); BOT 401 – Research – the number of credits is variable – is also very useful. BOT 410 – Internship – the number of credits is variable – can be taken if credits are wanted for off campus job experience involving plant biology. For students going to graduate school it is recommended that MTH 251 and 252 and BB 450 & 451 be taken.

**GRADUATION REQUIREMENTS CHECKLIST**

The student has:

□ a total of at least 180 credit hours.

□ at least 60 hours of upper division credits (300 level or higher).

□ at least 24 hours of upper division credits in the major (includes BI 311, BI 314 and

 PBG 430 & 431).

□ a minimum 2.0 GPA in each of the following:

 All course work taken at OSU.

 All required science courses (transfer and OSU) for the Botany Major.

□ not taken any required science courses for an S/U grade.

□ taken the last 45 credits at OSU (or 45 of the last 60 credits, if authorized by the

 by the College of Agricultural Sciences).

□ formally applied to graduate at least two terms before the term in which the degree

 requirements will be completed.