

# Prescriptions and Schedule of Papers for 2007

## Mode of Delivery

|   |                               |
|---|-------------------------------|
| *   | = Not available in 2007       |
| B1, B2, B3  | = Available as a block course |
| E, E1, E2   | = Available extramurally      |
| F1  | = Face to face teaching       |
| I, I1, I2, I3, I4, I5, I6, I7, I8, I9, I10, I11, I12, I13, I14, I15, I16, I17, I18, I19, I20, I21, I22, I23, I24, I25, I26, I27, I28, I29, I30, I31, I32, I33, I34, I35, I36, I37, I38, I39, I40, I41, I42, I43, I44, I45, I46, I47 | = Available internally        |

## Semesters

|     |                 |
|-----|-----------------|
| S1  | Semester One    |
| S2  | Semester Two    |
| S3  | Summer School   |
| S12 | Double Semester |

## Locations

|    |                                  |
|----|----------------------------------|
| AG | Auckland Geographic Area         |
| AL | Massey Albany                    |
| CG | Christchurch Geographic Area     |
| CH | Christchurch                     |
| EM | Employers and Manufacturers Assc |
| HK | Hokowhitu Campus                 |
| HW | Hawkes Bay                       |
| MA | Military Stds Inst. Auckland     |
| NT | Email/Internet                   |
| PG | Papua New Guinea Geographic Area |
| PN | Massey Palmerston North          |
| RU | Ruawhoro Campus                  |
| SP | Singapore Aviation Academy       |
| TH | Thailand Aviation Academy        |
| TN | Tonga Geographic Area            |
| WG | Wellington Geographic Area       |
| WL | Massey Wellington                |

| Paper No./Title  | Credits    | Sem | Mode | Loc |
|--|------------|-----|------|-----|
| <b>Plant Biology and Biotechnology</b>   |            |     |      |     |
| <b>120.101</b>   | 15 credits | S12 | E    | PN  |
| <b>Biology of Plants</b>   |            | S2  | I    | AL  |
| An integrated study of the structure, function and diversity of plants. Topics include: anatomy and morphology; maintenance of the organism (nutrition, photosynthesis, respiration and transport); growth and development; co-ordination and regulation of growth; effects of environment on growth and development; reproduction; floral biology; plant systematics and plant diversity; plant breeding, biotechnology, and genetic engineering. |            |     |      |     |
| <b>120.217</b>   | 15 credits | S2  | I    | PN  |
| <b>Plant, Cell and Environment</b>   |            |     |      |     |
| A study of the growth, development and functioning of plants and their interaction with the physical environment with reference to the soil-plant-atmosphere continuum and mineral nutrition. Plant responses to environmental extremes such as waterlogging, salinity, mineral toxicities, elevated CO <sub>2</sub> and UV radiation will be covered.   |            |     |      |     |
| <b>120.218</b>   | 15 credits | S2  | I    | PN  |
| <b>The Flora of New Zealand</b>  |            |     |      |     |
| The place of the New Zealand flora in a world context. This paper considers the origins and relationships of the New Zealand flora, plant distributions, adaptive features, morphology, anatomy and reproduction, along with a consideration of plant communities.   |            |     |      |     |
| <b>120.301</b>   | 15 credits | S2  | I    | PN  |
| <b>Physiological and Molecular Plant Biology</b>   |            |     |      |     |
| Modern developments in plant biology are covered, including topics such as plant-pathogen interactions, the regulation of plant growth and development by plant hormones, photo-morphogenesis, symbiotic associations, and nitrogen fixation. The practical component of the paper includes visits to local research laboratories and emphasises modern experimental methods and instrumentation.  |            |     |      |     |
| <b>120.302</b>   | 15 credits | S1  | I    | PN  |
| <b>Plant Development</b>   |            |     |      |     |
| Diverse patterns of plant development that were initially described from cytological and morphological perspectives are beginning to be understood at a mechanistic level through the use of molecular and genetic techniques. This paper provides an introduction to classic literature pertaining to different aspects of plant development and integrates it with more recent molecular genetic studies.  |            |     |      |     |

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|--|-------------|-----|------|-----|
| <b>120.303</b>   | 15 credits  | S2  | I    | PN  |
| <b>Advanced New Zealand Botany</b>   |             |     |      |     |
| Questions on the evolution of the New Zealand flora are considered using classical and molecular approaches. Topics include evolution, hybridisation and speciation, biogeography, physiological and morphological adaptations, offshore island flora and vegetation, rare and endangered species and ethnobotany.   |             |     |      |     |
| <b>120.706</b>   | 30 credits  | S12 | I    | PN  |
| <b>Plant Developmental Biology</b>   |             |     |      |     |
| This paper considers the nature of developmental and physiological processes in plants. The paper offers a wide-ranging survey of the current literature ranging from the morphological to the molecular and includes the use of genetic approaches to understand plant development and function, including the interactions of plants with the environment. |             |     |      |     |
| <b>120.713</b>   | 30 credits  | S12 | I    | PN  |
| <b>Advanced Topics in Plant Biology</b>  |             |     |      |     |
| The paper will involve use of the current literature to critically examine the experimental systems used to advance knowledge in Plant Biology.  |             |     |      |     |
| <b>120.714</b>   | 15 credits  | S12 | I    | AL  |
| <b>Botanical Evolution</b>   |             | S12 | I    | PN  |
| This paper discusses at an advanced level, current topics and issues important for understanding plant evolution, species radiation and biodiversity.  |             |     |      |     |
| <b>120.791</b>   | 30 credits  | S12 | I    | PN  |
| <b>Special Topic</b>   |             |     |      |     |
| <b>120.793</b>   | 15 credits  | S12 | I    | PN  |
| <b>Special Topic</b>   |             |     |      |     |
| <b>120.798</b>   | 30 credits  | S12 | I    | PN  |
| <b>Research Report</b>   |             |     |      |     |
| <b>120.799</b>   | 30 credits  | S12 | I    | PN  |
| <b>Research Project</b>  |             |     |      |     |
| <b>120.800</b>   | 120 credits | S12 | I    | PN  |
| <b>MPhil – Plant Biology</b>   |             |     |      |     |
| <b>120.897</b>   | 60 credits  | S1  | I    | PN  |
| <b>Thesis (Year 1)</b>   |             | S12 | I    | PN  |
|  |             | S2  | I    | PN  |

| Paper No./Title             | Credits     | Sem | Mode | Loc |
|-----------------------------|-------------|-----|------|-----|
| <b>120.898</b>              | 60 credits  | S1  | I    | PN  |
| <b>Thesis (Year 2)</b>      |             | S12 | I    | PN  |
|                             |             | S2  | I    | PN  |
| <b>120.899</b>              | 120 credits | S12 | I    | PN  |
| <b>Thesis</b>               |             |     |      |     |
| <b>120.900</b>              | 120 credits | S12 | I    | PN  |
| <b>PhD in Plant Biology</b> |             |     |      |     |

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|-----------------|---------|-----|------|-----|
|-----------------|---------|-----|------|-----|