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| **DAFFODIL INTERNATIONAL UNIVERSITY**  **DEPARTMENT OF PHARMACY**  **(Google Class Code-** **)** | | |
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| Course title and Code | Pharmacognosy-II; BPH-122 | |
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| Entry qualifications | Need to complete Pharmacognosy-I | |
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| Maximum number in class | 30 | |
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| Average class contact hours per week | 3 Hours | |
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| Examining body | Mashiur Rahman, Lecturer, Department of Pharmacy | |
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| Academic level | B. Pharm | |
| Duration of course | 6 Months | |
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| Teacher/Course Leader responsible for the course | Mashiur Rahman, Lecturer, Department of Pharmacy | |

**Course Description:**

The Pharmacognosy-II course is a course in which the student will get acquainted with the knowledge about the Pharmacognosy science and the medicinal uses of herbs and plants and the different types of plant tissues and cell contents. And the different drugs belongs to fruits, herbs, subterranean organs and unorganized drugs that is used medicinally and its active chemical constituents.

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| **Lecture No.** | **Chapter Name** | **Lecture Topics** | **Duration** |
| Lecture-1 | Introduction | Syllabus overview, Assessment process, Lecture schedule | 1.3 |
| Lecture-2 | **Glycosides and glycoside-containing drugs** | Introduction, classifications & biosynthesis of glycosides. | 1.3 |
| Lecture-3 | The details of the following classes of glycosides and glycoside-containing drugs | 1.3 |
| Lecture-4 | Cardiac: Digitalils, Strophanthus, Squill, Nerium | 1.3 |
| Lecture-5 | Anthraquinones: Cascara sagrada, Aloe, Senna, Rhubarb.  Saponins: Sarsaparilla, Glycyrrhiza, Dioscorea.  Cyanogenic: Wild Cherry. | 1.3 |
| Lecture 6 | Isothiocyanate: Mustard (Black mustard and White mustard).  Other glycosides like alcohol, phenol, aldehyde, flavonoid, lactone, etc. and neutral principles: Gentian, Quassia, Saffron. | 1.3 |
| Lecture-7 | **Assessment-1** | **Quiz -1, Marks-10 and Problem Solving** | 1.3 |
|  | **Assessment-2** | **Presentation (5) and Assignment (5)** | **2.5** |
| Lecture-8 | **Alkaloids** | Introduction to Alkaloids, Classifications, Characteristics | 1.3 |
| Lecture-9 | Tropane: Belladonna, Stramonium, Hyoscyamus, etc. | 1.3 |
| Lecture-10 | Quinoline: Cinchona, Cusparia. | 1.3 |
| Lecture-11 | Isoquinoline: Ipecac, Opium, Sanguinaria, Curare. | 1.3 |
| Lecture-12 | Indole: Rauwolfia, Nux vomica, Ergot, Catharanthus. | 1.3 |
| Lecture-13 | Imidazole: Pilocarpine.  Steroidal: Veretrum viride, Aconite | 1.3 |
| Lecture-14 | Lupinea: Lupinus spp.  Purine base:Coffee, Tea. | 1.3 |
| Lecture-15 | Biosynthesis of tropane, quinoline, isoquinoline and indole alkaloids | 1.3 |
| Lecture-16 | Problem solving class and Quiz 2 | 1.3 |
| **Assessment-3 Quiz 2, Marks-10** | | | |
| **Assessment -4 Midterm Examination (25 marks)** | | | |
| Lecture-17 | **Volatile oils and related terpenoids** | Methods of obtaining volatile oils, chemistry, their medicinal and commercial uses | 1.3 |
| Lecture-18 | Biosynthesis of some important volatile constituents used as drugs. | 1.3 |
| Lecture-19 | Terpenes or sesquiterpenes: Pinus, Juniper, Cade.  Alcohols: Coriander, Sandalwood | 1.3 |
| Lecture-20 | Ester: Peppermint, Lavender, Rosemarry..  Aldehydes: Cinnamon, Eucalyptus, Lemon, Lemon grass.  Ketons: Spearmint, Caraway, Dill, Camphor. | 1.3 |
| Lecture-21 | Phenols: Clove, Cinnamon, Ajowan.  Ethers: Fennel, Nutmeg, Eucalyptus, Anise, Cajuput.  Peroxides: Chenopodium.  Others: Mustard, Wintergreen, Bitter almond. | 1.3 |
| **Assessment-5 Quiz -3, Marks-10** | | | **1.3** |
| Lecture-24 | Phenolic compounds and tannins  Resin and resin combinations | Chemical nature and tests for tannins | 1.3 |
| Lecture-25 | Some tannin-containing drugs such as Nutgall and Catechu. | 1.3 |
| Lecture 26 | Genaral consideration, classification and study of resin, oleo resin, oleo-gum resin, tolu balsam and benzoin. | 1.3 |
| **Lecture-27** | Herb as health foods | Alfa alfa, Apricot, Pits, Arnica, Garlic, Onion, Ginseng, Spirulina, | 1.3 |
| **Lecture-28** | Fenugreek, Sassafras, Honey, Nigella etc. | **1.3** |
| **Quiz-4, Marks-10 (If Necessary)** | | | **1.3** |
| Lecture-29 | Poisonous plants and natural pesticides | Datura, Poison hemlock, Water hemlock, Foxglove (digitalis), Ipornoca, | 1.3 |
|  | Tobacco, Poppy, Pyrethrum flower, Derris & Lanchocarpus, Red squill, Strychnine, etc | 1.3 |
| Lecture-30 | Review | 1.3 |
| Lecture-31 | Overall Review | 1.3 |
| **Semester Final Examination (50 marks)** | | | |