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## PHARMACOGNOSY LAB

### INTRODUCTION

Plant materials are used throughout developed and developing countries as home remedies, over the counter drug products and raw materials for the pharmaceutical industry. It is therefore essential to ensure the quality of medicinal plant products by using several techniques and applying suitable standards. One of the most important techniques to authenticate a crude plant drug is the microscopical examination of the crude plant or the plant powder. The plant material is prepared for microscopical examination and the anatomical features of the powdered drugs are recorded in order to compare the structures present with those drawn and described in the relevant monographs. At the end of the lab course, students are able to interpret the morphological and anatomical descriptions of the crude plant in order to clearly identify it.

### EXPERIMENTS

- The morphological and microscopical identification of the herbal leaves such as senna leaves; peppermint leaves; thyme leaves and flowering tops
- The morphological and microscopical identification of the herbal seeds such as black mustard seeds and fenugreek seeds
- The morphological and microscopical identification of herbal fruits such as anise fruits, caraway fruits, coriander fruits, cardamom fruits, fennel fruits, black pepper fruits and capsicum fruits
- The morphological and anatomical identification of herbal underground parts: rhubarb rhizome, ginger rhizome, liquorice root
- The morphological and anatomical identification of herbal flowers like clove flower
- The morphological and anatomical identification of herbal stem and root barks such as cinnamon bark

### TESTS AND SERVICES

This course gives the pharmacists the skills to identify herbal medicines and detect any adulteration in the herbal products in the market through microscopic examinations.