

## Food As Medicine Program Syllabus

The Food As Medicine Online Learning program is arranged into sixteen lessons, as follows:

**Class One: Digestion and absorption:** a detailed review of the anatomy and physiology of the digestive system, including clinical insights on digestion and absorption, and a review of gastrointestinal microbiome. Sections covered in this lesson include:

- histology and structure
- mouth, salivary glands, tongue and teeth
- pharynx and esophagus
- stomach and gastric digestion
- pancreas
- liver and gall bladder
- small intestine and absorption
- colon

**Class Two: Chemistry and Metabolism:** a review of the key concepts that underlie modern nutrition, including basic chemistry, the macronutrients, and metabolic function. Sections covered in this lesson include:

- elements and nutrients
- energy transfer and ATP production
- carbohydrate metabolism
- protein metabolism
- lipid metabolism

**Class Three: Micronutrients (vitamins):** a review of the vitamins. Sections covered in this lesson include:

- A, B, C, D, E, K

**Class Four: Micronutrients (macrominerals):** a detailed review of the eight macrominerals. Sections covered in this lesson include:

- Ca, Cl, Mg, K, P, Si, Na, S

**Class Five: Micronutrients (trace minerals):** a detailed review of the trace minerals. Sections covered in this lesson include:

- B, Cr, Co, Cu, F, Ge, I, Fe, Li, Mn, Mo, Se, Sr, V, Zn

**Class Six: Phytochemistry and Food:** an introduction to organic chemistry, and the synthesis of primary and secondary metabolites from photosynthesis. Includes a review of key secondary metabolites that play an important role in both food and herbal medicine. Sections covered in this lesson include:

- organic chemistry
- photosynthesis
- primary metabolites
- secondary metabolites
  - organic acids, alcohols, and esters
  - polysaccharides
  - glycosides
  - phenols and polyphenols
  - glucosinolates
  - terpenes
  - resins
  - alkaloids
  - antinutrient factors

**Class Seven: Introduction To Ayurveda:** an introduction to Ayurveda, and the key concepts that underlie its usage, including the concept of quality, the three *doshas*, constitution (*prakriti*), disease (*vikriti*), the six flavors, season and climate, food quantity and timing, and food combinations. Sections covered in this lesson include:

- what is food?
- the concept of quality
- the three *doshas*
- constitution (*prakriti*)
- disease (*vikriti*)
- the six flavors
- season and climate
- food quantity and timing
- food combinations

**Class Eight: The Quality and Nature Of Food (I):** a review of the different components of the diet. Sections covered in this lesson include:

- water
- vegetables
- fruit
- meat

**Class Nine: The Quality and Nature Of Food (II):** a review of the different components of the diet. Sections covered in this lesson include:

- cereal grains
- legumes
- nuts and seeds
- dairy

**Class Ten: The Quality and Nature Of Food (III):** a review of the different components of the diet. Sections covered in this lesson include:

- fats and oils

- sweeteners
- tea, chocolate and coffee
- salt
- alcohol

**Class Eleven: The Practice Of Food (I):** is an anthropological and historical exploration of the human diet, as well as a review of traditional and modern diets. Sections covered in this lesson include:

- the evolution and history of diet
- the Paleolithic diet
- the Ayurveda diet (*vata, pitta, kapha*)
- the vegetarian diet
- the vegan diet
- raw foodism
- modern diets (e.g. Macrobiotics, Atkins, South Beach, Mediterranean, Zone, DASH, Mayo, Pritikin, Ornish, Specific Carbohydrate, GAPS, MCT, etc.)

**Class Twelve: The Practice Of Food (II):** is a review of the benefits and disadvantages of different types cookware. This class also provides a detailed review of the various methods of food preparation, and discusses their merits and potential problems. Sections covered in this lesson include:

- cookware
  - ceramics, soapstone, cast iron, copper etc.
- food preparation
  - raw
  - germination
  - steaming
  - boiling, stewing and braising
  - baking and roasting
  - frying
  - grilling
  - fermentation
  - curing

**Class Thirteen: Herbs And Spices (I):** part one of a review detailing the culinary and medicinal use of 50 different herbs and spices. Also discuss the use of masalas, rubs and marinades, and how to blend herbs and spices together.

**Class Fourteen: Herbs And Spices (II):** part two of a review detailing the culinary and medicinal use of 50 different herbs and spices. Also discuss the use of masalas, rubs and marinades, and how to blend herbs and spices together.\*

**Class Fifteen: Fasting and Detoxification:** is a review of the theory and practice of detoxification within traditional and alternative medicine, including various methods and strategies, and the use of medicinal herbs as adjuncts.\*

**Class Sixteen: Dietary therapeutics:** is a review of dietary therapy, providing a review of selected health issues and their treatment and prevention with diet. Sections covered in this lesson include:

- meal plans
- strategic eating
- food allergies
- elimination challenge diet
- review of health issues and dietary treatment

Video and audio versions of each class are available on demand by accessing the Food As Medicine Student page. In addition to these classes, registration with the Food As Medicine online learning program provides an additional 70-80 contact hours through a weekly Q&A webinar over a two year period.

### \*Herbs covered in Food As Medicine

- american ginseng root (xi yang shen)
- amla fruit (amalaki, indian gooseberry)
- asafoetida resin (hing)
- ashwagandha root
- asparagus (wild) root (shatavari, tian men dong)
- basil leaf
- black mustard seed (kalirai, sarson)
- black pepper fruit (gulki, hu jiao)
- calendula flower
- caraway seed
- cardamom seed (black)
- cardamom seed, black (badi elachi, xiang dou kou)
- cardamom seed, green (choti elachi)
- chickweed herb
- chili fruit (mirch, la jiao)
- chinese angelica root
- chinese angelica root (dang gui)
- chinese ginseng root (ren shen)
- chinese yam rhizome (shan yao)
- cinnamon bark (twak)
- cassia or chinese cinnamon (rou gui, dalchini)
- clove flower (lavang)
- coriander seed (dhaniya)
- cumin seed (jeera)
- curry leaf (karipatti)
- dandelion (dudal, pu gong ying)
- dill seed, herb (sowa, shi luo)
- epazote
- fennel seed
- fenugreek seed, herb (methi)
- garlic bulb (lashun, da suan)
- ginger rhizome (sonth, gan jiang)
- goji fruit
- gotu kola (brahmi, ji xue cao)
- hemp seed (bhang bij, huo ma ren)
- holy basil leaf (tulsi)
- juniper fruit
- lavender flower
- lemon balm leaf
- lily bulb (bai he)
- long pepper fruit (pippali, pipal)
- mint leaf
- nettle leaf
- nutmeg fruit (jaiphal)
- orange peel
- oregano leaf
- peony root (bai shao)
- pink salt
- polygonum root (he shou wu)
- poria fungus (fu ling)
- prickly ash berry (tejphal, hua jiao)
- rehmannia root, cured (shu di huang)
- rose blossom (gulab, mei gui ha)
- rosemary leaf
- sage leaf
- sage leaf
- sea salt
- seaweed
- slippery elm
- solomon's seal root (yu zhu)
- tamarind fruit
- tarragon leaf
- thyme leaf
- turmeric rhizome (haldi, jiang huang)
- wild celery seed (ajwain)