Instructor: Dr. Jameela Banu
Office: EHABW 2.102C (UTRGV, Edinburg Campus)
Telephone: 956-665-3222
E-mail: Jameela.banu@utrgv.edu
Office hours: Tuesday and Thursday 10:00 AM - 11:00 AM or by appointment ONLY
Term: Fall 2018

Method of Delivery: Online

Textbook and/or Resource Material

Course Description and Prerequisites –
This course will introduce students to evidence based herbalism and energy derived from plants. Different phytochemicals and their impact on health will also be discussed. It will also include information on using plants as therapeutics for maintaining, preventing and treating medical conditions in humans.

Prerequisites: BIOL General Biology I & II
Prerequisites:
Course or Test: BIOL 1406, Minimum Grade of C, May not be taken concurrently. OR
Course or Test: BIOL 1407, Minimum Grade of C, May not be taken concurrently. OR

Learning Outcomes
Upon successful completion of this course, students will:
1. Familiar with the different phytochemicals.
2. Explain phytochemical pharmacokinetics
3. Describe the different sources of phytochemicals.
4. Explain the use of different phytochemicals in health and disease.

Learning Objectives for Core Curriculum Requirements:
Students taking this course will learn about the different phytochemicals, their pharmacokinetics and the use of phytochemicals in health and disease.

Objectives: Critical Thinking, Communication, Empirical & Quantitative Skills, Teamwork
Critical thinking: is a way of examining and exploring issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.
Communication:
Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.
Empirical and Quantitative Skills: Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with
numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Teamwork: is the ability of individuals to work together to accomplish a task or produce a product in a way that is respectful and values the strengths of the members of the team.

**Grading Policies**

Your course grade will be determined as follows:

- Participation (after every chapter) 10 pts
- Quiz (3) 10 pts
- Exams (3) 60 pts
- Assignment/discussion (1) 20 pts
- Total 100 pts

Participation will be assessed based on a quiz at the end of each week. This quiz will have questions from the materials provided for the respective week.

For any questions regarding the Bb and online problems you can get help from COLTT – COLTT Help Desk Information:

**COLTT Office Hours** Monday - Friday, 7:30 a.m. - 6:00 p.m.

**Location**

Brownsville Campus
Rusteberg 108
(956) 882-6792

Edinburg Campus
Education Complex 2.202
(956) 665-5327

Submit a Ticket
[utrgv.edu/colthelp](http://utrgv.edu/colthelp)

Website
[www.utrgv.edu/online](http://www.utrgv.edu/online)

Exams and quizzes will have multiple choice, true or false, fill in the blanks, and match the following questions.

The point range for each letter grade is given below:

<table>
<thead>
<tr>
<th>Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100</td>
<td>A</td>
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<tr>
<td>80-89</td>
<td>B</td>
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<tr>
<td>70-79</td>
<td>C</td>
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<tr>
<td>60-69</td>
<td>F</td>
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Quizzes and exams will be online. Quizzes and exams will be open on the day of the quiz a/exam as specified in the syllabus. You have to download [Respondus lockdown browser](http://respondus.com) in your computer to take the tests online.

e. Grades are based on the performance ONLY. This is measured simply and numerically.

Other Course Information:
a). Contacting the Professor:
You can contact me during the office hours. You can email or come in person to my office. If you want to come in person please email me before coming so I will be better prepared to answer your questions and our time is efficiently utilized. PLEASE GIVE ME 24-48 HRS TO RESPOND TO YOU.

b) Policy for make up exams/quiz:
- If you know you will be absent for a test, you must contact me at least one week in advance to make arrangements to take the test at another time.
- If you can provide written documentation of a medical or other emergency, on the day of the test, I will consider a make-up test.
- A grade of zero will be entered for missed tests.

c) Please look out for any announcements that are posted in Blackboard

Suggestions for success:
Read through the assigned chapters, powerpoint and use the text for explanations.
Watch the posted videos.
Read through the chapter thoroughly.
Attend all discussions, quizzes and exams and participate in the participation quiz.

University calendar: Fall 2018 Term (August 27 – December 13)
Registration Begins Aug. 22 (Wed.)
Payment Due Aug. 24 (Fri.) Waitlist Ends Last day to withdraw (drop all classes) and receive a 100% refund Aug. 27 (Mon.) Fall classes begin
Aug. 30 (Thurs.) Last day to add or register for Fall classes Aug. 31 (Fri.) Last day to withdraw (drop all classes) and receive an 80% refund
Sept. 3 (Mon.) Labor Day Holiday. No classes.
Sept. 10 (Mon.) Last day to withdraw (drop all classes) and receive a 70% refund Sept. 12 (Wed.) Census Day (last day to drop without it appearing on the transcript)
Sept. 17 (Mon.) Last day to withdraw (drop all classes) and receive a 50% refund
Sept. 24 (Mon.) Last day to withdraw (drop all classes) and receive a 25% refund
Nov. 14 (Wed.) Last day to drop (DR grade) a class or withdraw (grade of W)
Nov. 22 – Nov. 24 (Thurs. – Sat.) Thanksgiving Holiday. No classes
Dec. 6 (Thurs.) Study Day. No classes.
Dec. 7 – Dec. 13 (Fri. – Thurs.)
Final Exams Dec. 14 – Dec. 15 (Fri. – Sat.)
Commencement Exercises Dec. 17 (Mon.)
Grades Due at 3 P.M.
<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapter</th>
<th>Topic</th>
<th>Quiz/Exam</th>
<th>Chapters for quiz/exam</th>
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<tbody>
<tr>
<td>Aug 27th – Sep 2nd</td>
<td>1</td>
<td>Introduction to the course, Evidence based herbalism</td>
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<tr>
<td>Sep 3rd – Sep 9th</td>
<td>2</td>
<td>Phytochemical Diversity and Biological activity in Echinacea, Phytomedicines: Challenges to quality Control and germ plasm improvement</td>
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<td>Sep 10th – Sep 16th</td>
<td>3</td>
<td>Phytochemicals in the Vaccinium family: Quiz 1</td>
<td>1 &amp; 2</td>
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<td>Sep 17th – Sep 23rd</td>
<td>4</td>
<td>Wine polyphenols and protection From artherosclerosis and ischemic heart Disease: Drink to your health?</td>
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<td>Sep 24th – Sep 30th</td>
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<td>Exam 1</td>
<td>1-4</td>
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<td>Oct 1st – Oct 7th</td>
<td>5</td>
<td>Beyond α-tocopherol: the role of the other tocopherols and tocotrienols</td>
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<td>Oct 8th – Oct 14th</td>
<td>6</td>
<td>Phytochemical pharmacokinetics</td>
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<td>Oct 15th – Oct 21st</td>
<td>7</td>
<td>Dietary isothiocyanates: roles of cancer prevention and metabolism in rodents and humans</td>
<td>Quiz 2</td>
<td>5 &amp; 6</td>
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<td>Oct 22nd – Oct 28th</td>
<td>8</td>
<td>Rationale for the use of soy phytoestrogens for neuroprotection</td>
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<td>Oct 29th – Nov 4th</td>
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<td>EXAM 2</td>
<td>6 - 8</td>
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<td>Nov 5th – Nov 11th</td>
<td>9</td>
<td>Bioengineering and breeding approaches For improving nutrient and phytochemical</td>
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<td>Date Range</td>
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<td>Nov 12\textsuperscript{th} – Nov 18\textsuperscript{th}</td>
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<td><strong>Phytochemicals in oil seeds</strong></td>
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<td>Nov 19\textsuperscript{th} – Nov 25\textsuperscript{th}</td>
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<td><strong>Lycopene and human health</strong></td>
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<td>Nov 26\textsuperscript{th} – Dec 2\textsuperscript{nd}</td>
<td>12</td>
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<td><strong>Astaxanthin, β cryptoxanthin, lutein and zeaxanthin</strong></td>
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<td>Dec 3\textsuperscript{rd} – Dec 5\textsuperscript{th}</td>
<td>Assignment 1</td>
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**Dec 9\textsuperscript{th}**  **Final Examination**  **ONLINE**  **Comprehensive (all chapters)**