

## Special Topics: “Marine Chemical Ecology”

A Graduate Class for Winter Quarter 2015 (4 units)

William Fenical

<p><b>Lect 1</b> Introduction to Chemical Ecology, History and Terminology, Metabolite Classification and Basic Biosynthesis</p> <p><b>Lect 2</b> Chemistry and Adaptations of Marine Bacteria and Fungi</p> <p><b>Lect 3</b> Chemical Ecology of Phytoplankton, Red Tides, Toxin production, Herbivore deterrence</p> <p><b>Lect 4</b> Chemical Ecology of Marine Microfauna</p> <p><b>Lect 5</b> Marine Plant-Herbivore Interactions: Green and Blue-Green Algae</p> <p><b>Lect 6</b> Marine Plant-Herbivore Interactions: Red Algae</p> <p><b>Lect 7</b> Marine Plant-Herbivore Interactions: Brown Algae <i>Have Term Paper approved</i></p> <p><b>Lect 8</b> The Impacts of Herbivory on Coral Reef Ecology, Overfishing</p> <p><b>Lect 9</b> Chemical Ecology of Sea Hares</p> <p><b>Lect 10</b> Chemical Ecology of Marine Invertebrates - Echinoderms</p>	<p><b>Lect 11</b> Chemical Ecology of Sessile Marine Invertebrates - Octocorals</p> <p><b>Lect 12</b> <i>Midterm Exam</i></p> <p><b>Lect 13</b> Chemical Ecology of Sessile Marine Invertebrates - Bryozoans</p> <p><b>Lect 14</b> Chemical Ecology of Sessile Marine Invertebrates - Ascidians</p> <p><b>Lect 15</b> Chemical Ecology of Sessile Marine Invertebrates - Sponges</p> <p><b>Lect 16</b> Sponge Metabolites and their Natural Functions</p> <p><b>Lect 17</b> Bacterial Symbiosis in Sessile Marine Invertebrates</p> <p><b>Lect 18</b> Chem. Ecology of Nudibranchs and Related Opisthobranchs</p> <p><b>Lect 19</b> Fish Toxins and Chemical Defenses</p> <p><b>Lect 20</b> The Relationship between Marine Pharmacology and Chemical Ecology <i>Term Papers Due</i></p> <p><b>Lect 21</b> <i>Final Exam</i></p>
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