

## Physics 471E -- Advanced Topics in Physics: Biophysics -- Spring 2021

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| <b>Instructor</b>        | Renate Wackerbauer,<br>Office Location: REIC106<br>phone: 474-6108<br>e-mail: rawackerbauer@alaska.edu                                                                                                                                                                                                                                                                                                                                                        |
| <b>Open office hours</b> | Due to Covid19 there are no walk-in office hours unless the situation improves; meeting via zoom works; email is effective for straight-forward questions. additional recitation classes can be scheduled on request. homework questions can be discussed during/before class.                                                                                                                                                                                |
| <b>Course info</b>       | Phys471E, 1 credit                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Prerequisites</b>     | Phys220 and Phys301, or instructor's permission                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Lectures</b>          | MWF 1 to 2pm, REIC 203<br>The lectures will explore in depth material presented in the text<br><b>Lectures will be recorded, uploaded to "google classroom", and shared with all students in class. Due to the fluid situation with covid, the course modality can change throughout the semester. In the case of online course delivery, lectures would be offered synchronously (tablet with whiteboard), recorded, and uploaded into google classroom.</b> |
| <b>Noyes Lab</b>         | Access to the Noyes Computer Lab (REIC 101) is provided to all students enrolled in a Physics course. Your polar express card lets you in.                                                                                                                                                                                                                                                                                                                    |
| <b>Text</b>              | <u>We use following text that is available through the library (some excerpts can be</u><br>_____                                                                                                                                                                                                                                                                                                                                                             |
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| <p><b>Homework</b><br/><a href="#">homework assignments</a></p> | <p>Homework will be assigned about weekly and will be due by 3pm on the due dates. <i>Late homework will not be accepted.</i><br/><b>Finished homework should be uploaded as a pdf-file to "google classroom"</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                          |                             |  |  |  |
| <p><b>Examination</b></p>                                       | <p>A one-hour in-term final examinations will be held during the semester. The exam will be closed books and closed notes.</p> <table border="1" data-bbox="394 432 1166 527"> <tr> <td>Final exam</td> <td>friday, feb 12, in class</td> <td>Class material and Lectures</td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Final exam                  | friday, feb 12, in class | Class material and Lectures |  |  |  |
| Final exam                                                      | friday, feb 12, in class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Class material and Lectures |                          |                             |  |  |  |
| <p><b>Grading</b></p>                                           | <p><b>Homework:</b> The maximum score for each homework will be 100 points. <i>Illegible work will not be graded.</i><br/><b>Project:</b> Explore the wide field of Biophysics in a project that will be presented to class in a 10 minute talk. Choose an application of a physical concept from fluid mechanics, mechanics, electricity and magnetism, or quantum mechanics in the <b>broad</b> field of biological physics. Browsing through articles in Physics Today or books on biological physics is a good starting point to find such a project.<br/><a href="#">Evaluation of the presentation</a></p> <table border="1" data-bbox="394 961 1032 1150"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> |                             |                          |                             |  |  |  |
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discrimination against any individual: <https://alaska.edu/nondiscrimination/>.

Your instructor follows the University of Alaska Fairbanks Incomplete Grade Policy: “The letter “I” (Incomplete) is a temporary grade used to indicate that the student has satisfactorily completed (C or better) the majority of work in a course but for personal reasons beyond the student’s control, such as sickness, has not been able to complete the course during the regular semester. Negligence or indifference are not acceptable reasons for an “I” grade.”

Effective communication: Students who have difficulties with oral presentations and/or writing are strongly encouraged to get help from the UAF Department of Communication's Speaking Center (907-474-5470, [speak@uaf.edu](mailto:speak@uaf.edu)) and the UAF English Department's Writing Center (907-474-5314, Gruening 8th floor), and/or CTC's Learning Center (604 Barnette Street, 907-455- 2860).