

# UO Physics & Human Physiology SAIL Camp

August 2-6, 2010. 10AM - 3PM Daily

Willamette Hall, Room 240, and other locations

Physics Department office phone: (541) 346 4751

## SCHEDULE

### MONDAY August 2:

10:00 – 10:20 am	<b>Introduction, welcome (both Physics and Human Physiology).</b> <i>Profs. Raghu Parthasarathy and Paul van Donkelaar</i>
10:20 – 11:45 am	<b>Self-assembly (part 1): Oil drops, soap bubbles, and cells – what do they have in common?</b> <i>Raghu Parthasarathy w/ lab (Matthew Jemielita, Andrew Loftus). In Willamette 240</i>
11:50 – 12:50 pm	<b>Lunch</b> (provided).
1:00 – 1:50 pm	<b>Microscopic materials (Hands-on activities exploring materials with microscopy – seeing and manipulating small things)</b>  <i>People: RP , w/ lab (Ian, Tristan, Maunta, Andrew, Yupeng). In Willamette 240 and Willamette 171</i>
2:00 – 3:00 pm	<b>Human Phys.: Shoulder Biomechanics</b> ( <i>Gerlinger 304</i> ) Andy Karduna.

### TUESDAY August 3:

10:00 – 12:00 pm	<b>Physics and Rock Climbing: Climbing the Rock Wall at the UO Gym</b> The Physics of Rock Climbing, plus a climbing activity. – GTFs <b>Mick Davis, Mike Taormina, Tom Baldwin</b>  <i>Meet at Willamette 240; Raghu will take students to the rec. center.</i>
12:00 – 1:00 pm	<b>Lunch</b> (provided).
1:00 – 1:20 pm	<b>Demo show: Energy and waves.</b> Some dramatic demonstrations, especially related to waves and sound ( <b>Ben Wright, Billy Scannell</b> ). <i>In Willamette 100</i>
1:25 – 2:00 pm	<b>Energy in the Modern World – a brief look.</b> <i>Raghu Parthasarathy.</i> What is energy? How do we harness it? How much do we use? <i>In Willamette 100</i>
2:00 – 3:00 pm	<b>Human Phys: Brain stimulation.</b> Electromagnetic brain stimulation. Videos of brain disorders; discussion of brain function. <i>Paul van Donkelaar. In Willamette 100</i>

**WEDNESDAY August 4:**

10:00 – 11:45 am	<b>Biomaterials – more self-assembly.</b> <i>Raghu Parthasarathy</i> What are we made of? How is it put together? (From cell membranes to embryogenesis.) <i>Willamette 240</i>
11:45 – 12:45 pm	<b>Lunch</b> (provided).
1:00 – 1:50 pm	<b>Student research at UO.</b> In which SAIL students explore research going on at UO with undergraduates and graduate students, and deliver short presentations. <i>In Willamette 240</i>
2:00 – 3:00 pm	<b>Human Phys: Gait analysis.</b> <i>Prof. Li-Shan Chou.</i> <i>In B-52 Gerlinger Annex</i>

**THURSDAY AUGUST 5:**

10:00 – 11:00 am	<b>Anatomy Labs / Cadavers</b> GTF: <i>Tynan Weed</i> <i>In 75-B Klamath, near the Science Library; meet in Willamette 240 first</i>
11:00 – 12:00 pm	<b>Human Phys.: Respiratory Lab</b> <i>Prof. Andy Lovering.</i> <i>Rm 200, Center for Medical Education and Research</i>
12:00 – 1:00 pm	<b>Lunch</b> (provided) and outdoor concert – <i>EMU Amphitheater</i>
1:00 – 1:50 pm	<b>Human Phys: Balance/posture control.</b> <i>Prof. Woollacott's Lab.</i> GTFs: <i>Sandy Saavedra, Sujitra Boonyong, Francine Porter.</i> <i>In Gerlinger 346</i>
2:00 – 3:00 pm	<b>Financial Aid for College</b> (A presentation – <b>Ben Fisher</b> , UO Office of Student Financial Aid & Scholarships). <i>In Willamette 240</i>

**FRIDAY AUGUST 6:**

10:00am– 12:00 pm	<b>Undergraduate Physiology Lab.</b> Hands-on experiments at the Human Physiology teaching labs. <i>In Student Rec Center 4 – Meet at Willamette 240.</i>
12:00 – 1:00 pm	<b>Lunch</b> (provided). Pegasus Pizza. <b>Also:</b> Wrap-up, T-shirts
1:00 – 3:00 pm	<b>Conclusion / Group activity: “Challenge course”</b> <i>Field between music and ed. buildings.</i>