9:00-9:40. Welcome, Introduction, and Project Update  
Eric Steig, University of Washington (UW) – Welcome  
Paul Cutler, NSF – Update from the National Science Foundation  
Mark Twickler & Joe Souney, University of New Hampshire – Project Planning and Logistics  
Jay Johnson, University of Wisconsin – Drilling technology

9:40-10:45. Session 1: Characteristics of Hercules Dome  
T.J. Fudge (UW) & Nick Holschuh (Amherst College) – Site selection and ice-sheet modeling  
Weisen Shen, Stony Brook U. – Seismic & thermal structure beneath Hercules Dome and why we want to know more  
Tobias Staal, U. of Tasmania – Geothermal heat flow in Hercules Dome region - results & uncertainties  
10:15 Breakout rooms (10 min.) followed by Panel Discussion (20 min.)

10:45-12:15. Session 2: Motivations and context for drilling at Hercules Dome  
Marina Dütsch, University of Vienna – Response of water isotopes in precipitation to a collapse of the WAIS in high-resolution simulations with the Weather Research and Forecasting Model  
Mackenzie Grieuman, University of Cambridge – SkyTrain Ice Rise  
Ed Brook, Oregon State University – CO₂ changes during glacial terminations and inceptions  
Murat Aydin, University of California, Irvine – SPICEcore trace gas measurements and implications for the Hercules Dome project.  
11:45 Breakout rooms (10 min), followed by Panel Discussion (20 min.)

12:15 Lunch/Afternoon Break (45 min.)

1:00-2:20. Session 3a: Short-version talks (<5 min.)  
John Patterson, University of California, Irvine – H₂ in Ice Cores  
Julia Marks-Peterson, Oregon State University – Developing high precision CO₂ measurements  
Jenn Campos Ayala, University of California – Acetylene from ice cores throughout the Holocene  
Vasilii Petrenko, University of Rochester – ¹⁴CO₂ to improve the radiocarbon calibration curve  
Erich Osterberg, Dartmouth – Circulation changes recorded in microparticle flux, size & chemistry  
1:20 Discussion (10 minutes)  
Julia Andreasen, University of Minnesota – Snow accumulation time series of coastal WAIS  
Thomas Chen, Academy for Mathematics, Science, and Engineering – Machine learning for climate change insights from ice core data  
Erin Pettit, Oregon State University – Deformation, climate, & physical properties from borehole observations  
Julien Bodart, University of Edinburgh / BAS – Age-depth stratigraphy of Pine Island Glacier  
1:55 Breakout rooms (10 min), followed by Panel Discussion (15 min.)

2:20 Break (10 min.)

2:30-3:30. Session 4: Larger Context  
Natalya Gomez, University of Montréal – Links between Antarctic ice dynamics, glacial isostatic adjustment and global sea level  
Ted Scambos, University of Colorado – The International Thwaites Glacier Collaboration  
3:05 Panel Discussion

3:30 End for the day
9:00-10:00. **Session 5. More on Hercules Dome characteristics**

*Murat Aydin*, University of California, Irvine – Welcome
*TJ Young*, University of Cambridge – Polarimetry methods
*Ben Hills*, University of Washington – Polarimetry Results at Hercules Dome
*Annika Horlings*, University of Washington – Surface mass balance at Hercules Dome

9:45 Discussion

10:00-11:00 **Session 6. Engagement with Antarctic Research**

*Guillaume Mauger*, UW – Washington Coastal Resilience Project and connecting sea level rise science to decision-makers
*Peter Neff*, U. of Minnesota – Role of social media in science engagement & broadening participation
*Helen Glazer*, Independent Artist – Art as a tool for communicating science
*Gifford Wong*, IDA Science and Technology Policy Institute – Science-policy interface and career pathways for science outside of academia

10:40 Discussion moderated by Heidi Roop

11:00 Break (10 min)

11:10-12:15 **Session 7: More motivations and context for Hercules Dome**

*Sarah Shackleton*, Princeton – Mean ocean temperature in Marine Isotope Stage 5: insight into early interglacial climate, and future work
*Dave Reusch*, UW – Observing and understanding precipitation, accumulation and meteorology in the Hercules Dome region
*Greg Balco*, Berkeley Geochronology Center – Subglacial bedrock recovery drilling and exposure dating
*Marissa Tremblay*, Purdue University – Noble gases in rock

12:00 Discussion (15 min.)

12:15 Lunch/Afternoon Break (45 min.)

1:00-2:20. **Session 8: Short-version talks** (<5 min., *= 10 min.)

*Juliana D'Andrilli*, Louisiana Universities Marine Consortium – Polar ice core organic matter signatures reveal past atmospheric carbon composition and spatial trends
*Paolo Gabrielli*, The Ohio State University – Elemental characterization of single mineral particles by mass spectrometry: a novel tool to infer past environmental and climate variability from ice cores
*Shuting Zhai*, UW – Anthropogenic Impacts on Tropospheric Reactive Chlorine since the Preindustrial
*Dominic Winski*, University of Maine – Holocene sea ice variability from South Pole ice core chemistry

1:30 Discussion (10 min.)

*Aaron Chesler*, University of Maine – The SPICEcore microparticle record.
*Jihong Cole-Dai*, South Dakota State University – Ice core chemical measurements - tools to date cores and to investigate ice sheet variations and ocean biogenic emissions
*Andreas Pauling*, UW – Non-linear modeled climate response to Antarctic topography change
*Jessica Badgeley*, UW – Inferring paleoaltimetry of the Antarctic Ice Sheet from ice cores

2:00 Panel Discussion (20 min.)

2:20 Break (10 min.)

2:30-3:30. **Session 9: Advances in Ice Core Research**

*Christo Buizert*, Oregon State University – Δage as a temperature proxy at Hercules Dome
*Laurence Yeung*, Rice University – Using the ice-core record to investigate the ancient free troposphere

3:05 Panel Discussion

3:30 **Hercules Dome Leadership Team** – Wrap up/next steps.