Sophomore Seminar Syllabus

Neuroethics: Neurotechnology, Free Will and the Privacy of Human Thought Stanford University

Instructor: Judy Illes, Ph.D., Senior Research Scholar, Stanford Center for Biomedical Ethics and

Department of Radiology

Schedule: 3 hours per week, Winter quarter

Week 1: 21st Century Neuroethics

(Roskies, A. [2002]. Neuroethics for the new millennium. Neuron, 35, 21-23; Decade of the

brain gives rise to new neuroethics. Medical Ethics Advisor, June 2002.)

Week 2: Emerging ethical, legal, and social issues in functional neuroimaging (Illes et al., Nature

Neuroscience, 2003; Illes, AJOB, under review)

Week 3: Lie detection and false memory

(Lee, T.M. et al. [2002]. Lie detection by functional magnetic resonance imaging. Human Brain Mapping, 15, 157-164; papers by Schacter; brain "fingerprinting", Illes "A Fish Story,

2004)

Week 4: Cognitive enhancement (President's Bioethics Council Report,

www.nyas.org/neuroethical.challenges, Farah, Illes et al., Nat. Rev. Neuroscience, in press)

Week 5: Cognitive responsibility and criminal behavior (papers by Winslade, Buchsbaum)

Week 6: Psychiatric treatment and free will; addiction and addictive behaviors

Week 7: Neuroethical challenges in pediatric imaging: Predicting developmental outcome

Week 8: Parenting: Rights and responsibilities of couples in a new age of fertility (Relevant segment

from film by Noel Schwerin: "Bloodlines: Technology Hits Home")

Week 9: Aging in health and disease: moral agency, choice, public health (papers by Jaworska

[possibly also guest speaker])

Week 10: Summing up: New frontiers

Class Presentations: In Weeks 3-9, students will prepare a 20-30 minute presentation for the group that

lays the groundwork for discussion and debate.

Student Evaluation: Class participation 40%

Class presentation 40% Short paper on neuroethics topic of interest 20%