

EMORY UNIVERSITY
NELL HODGSON WOODRUFF SCHOOL OF NURSING

COURSE NUMBER, TITLE: NRSG 389 The Science and Culture of Sleep

PRE REQUISITES: At least junior status

CO REQUISITES: None

CREDIT ALLOCATION: 3 credit hours
Lecture: 3 credits = 45 contact hours/semester

PLACEMENT: Spring

COURSE DELIVERY MODE: Face-to-face

FACULTY/INSTRUCTOR: Sander Gilman PhD
Distinguished Professor of Liberal Arts and Sciences, and the
Department of Psychiatry

Ann E. Rogers PhD, RN
Professor
School of Nursing and Department of Internal Medicine

COURSE DESCRIPTION:

An introduction to the physiology, psychology, and culture of sleep with attention to how all three are factors in therapeutic interventions in sleep disorders.

COURSE OBJECTIVES:

1. Students will describe the physiological mechanisms underlying sleep.
2. Students will discuss the association between sleep and health.
3. Students will explore the development of theories of dreaming.
4. Students will identify how culture influences when, where and with whom we sleep.

CURRICULAR THREADS:

This course will address the NHSWN curricular concept threads of: patient and family centered care and scholarship/evidenced based practice.

BSN/MSN ESSENTIALS MET:

BSN Essential:

- Essential I: Liberal education for Baccalaureate Generalist Nursing Practice

MSN Essential:

- Essential I: Background for Practice from Sciences and Humanities (MSN Essentials)

NHWSN POLICY:

Students should refer to the Student Handbook for: program information, school resources, policies, and guidelines. The handbook can be found at:

<http://www.nursing.emory.edu/audience-guides/students-audience-guide.html>

Emory University policies can be found here: <http://policies.emory.edu/>.

STATEMENT ON RELIGIOUS HOLIDAYS

Students should notify their course faculty in writing during the first week of the semester of their desire to observe any religious holidays. Students will remain responsible for all assigned work/clinical days. Refer the Student Handbook for the Religious Holiday Calendar. The handbook can be found at: <http://www.nursing.emory.edu/audience-guides/students-audience-guide.html>

ACCESSIBILITY SERVICES:

Students with disabilities who wish to request accommodations under the ADA must follow the University's procedures for verification of ADA eligibility by submitting supporting documentation to the Office of Accessibility Services (OAS).

<http://www.nursing.emory.edu/student-life/accessibility.html>

RESPECT STATEMENT

The Nell Hodgson Woodruff School of Nursing is a learning community enriched by diversity. We are committed to inclusiveness recognizing that open exchange is necessary as we learn from each other and respect different perspectives. We are committed to:

Promote Respect

We will respect the dignity and rights of all students, faculty and staff regardless of position, rank or authority.

Initiate Dialogue

We will initiate dialogue and express diversity of thoughts in a courteous manner, without fear of reprisal or insult.

Cultivate Reflection

We will listen respectfully while others share ideas, allow speakers to complete their thoughts and be open to considering new approaches.

Foster Equity

We will foster a safe and equitable academic environment that acknowledges the contributions and experiences of all persons from unique identities and backgrounds.

Maintain Accountability

We will hold ourselves accountable for our ethical conduct and reject intolerance, harassment, or violence towards others.

Course Requirements:

- 20% Attendance and active participation
- 20% One take home quiz at midterm
- 20% Case analysis of film
- 20% Sleep diary and a dream diary: each to cover one week
- 20% Critique of app

This course follows the rules outlined in the Honor Code, especially where **plagiarism** is concerned. If we suspect that any writing assignment is plagiarized, either in part or in its entirety, we are required to hand the matter over to the Honor Council. This also applies to “patching,” the practice of copying a sentence and exchanging a word or two. If you are not fully aware of what plagiarism is, ask us and/or refer to the Honor code. It is your duty to be fully aware what plagiarism is. If in doubt, ask!

Assignments must be turned in on the day and time indicated on this syllabus. **Late submissions** will be marked down by half a grade per day late. For example, if you have written a B paper, you will receive a B- if you have turned it in one day late, a C+ for two days late, etc. Papers with frequent grammatical and spelling errors are ineligible for any grade better than B.

Grading Scale:

A	100-94	A-	93-90	B+	89-87	B	86-83
B-	80-82	C+	79-76	C	75-73	C-	72-70
D+	69-67	D	66-64	F	64 or lower		

Course Schedule

January 18 Normal sleep including changes across the lifespan, adverse effects of insufficient sleep
Ann E. Rogers PhD, RN

Readings:
Carskadon, M & Dement, W.C. (2017). Normal Human Sleep and Overview. *Principles and Practice of Sleep Medicine*. M. Kryger, T. Roth, and W.C. Dement (Eds). pp 15-24

Assignment:
Keep a sleep diary, complete Epworth Sleepiness Scale

January 25 Circadian rhythms and sleep
To Be Announced

Readings:

Czeisler, C.A. & Buxton, O.M. (2017) Human Circadian Timing System and Sleep-Wake Regulation, In *Principles and Practice of Sleep Medicine* M. Kryger, T. Roth, and W.C. Dement (Eds). pp 363-376

Assignment:

Sleep diary due

Complete Horne-Ostberg Questionnaire (AKA Owl/Lark Scale)

February 1 From the Ancient world to the Victorians
Sander Gilman PhD

Readings:

Jacob's dreams (Gen. 28:11-19) and Joseph's Dreams (Gen. 37-41).

Cicero, *De re publica* pp. 257-283: *Somnium Scipionis* (Loeb Library on-line Emory)

Lewis Carroll, *Alice's Adventures in Wonderland* (Project Gutenberg, Chapters I-VI and Chapter XII)

Assignment: Dream Diary due at the end of week 6 (February 22)

February 8 The First Science of Dreaming and the Science of Dreams after Freud
Sander Gilman PhD

Readings:

Sigmund Freud, *The Interpretation of Dreams* (PEP Emory on-line, pp. 95-121 (specimen dream of Irma's Injection); 121-162 (structure)

Aserinsky, E. & Kleitman, N. (1953) Regularly occurring periods of eye mobility and concomitant phenomena during sleep. *Science*, 18, 273-274

Dement, W. (1967) Studies on the effects of REM deprivation in humans and in animals. In Kety, S. S., Ewatts, E. V. & Williams, H. L. (Ed's), *Sleep and Altered States of Consciousness*, Proceedings of the Association for Research in Nervous and Mental Disease, 45, 456-468

Hobson, J. Allan (2009). "REM sleep and dreaming: towards a theory of protoconsciousness". *Nature Reviews* **10** (11): 803–813.

February 15 Neurophysiology of Sleep
Ann E. Rogers PhD, RN

Readings:

Schwartz, M.D. & Kilduff, T.S. (2015). The neurobiology of sleep and wakefulness. *Psychiatric Clinics of North America*, 38, 615-644.

February 22 Sleep Disorders and Treatment
Ann E. Rogers PhD, RN

Readings:

Viewing of Peter Brook's 1967 film version Peter Weiss's *Marat/Sade* (1963)

Assignment:

Complete the Pittsburg Sleep Quality Questionnaire and write a short paper identifying the sleep disorder portrayed in *Marat Sade*. Using examples from the original play or the film, justify why you made that diagnosis.

March 1 Idiopathic Hypersomnia
Lynn Marie Trotti MD, Department of Neurology

Readings:

Billiard, M., & Sonka, K. (2016). Idiopathic hypersomnia. *Sleep Medicine Reviews*. 29, 23-33.

Trotti, L.M., Saini, P., Bliwise, D.L. , Freeman, A.A., Jenkins, A., Rye, D.B. (2015). Clarithromycin in γ -aminobutyric acid-related hypersomnolence: A randomized, cross-over trial. *Annals of Neurology*, 78, 454-465.

Trotti, L.M., Saini, P., Koola, C., LaBarbera, V., Bliwise, D., & Rye, D.B. (2016) Flumazenil for the treatment of refractory hypersomnolence: Clinical experience with 153 patients. *Journal of Clinical Sleep Medicine*, 12, 1389-1394.

Watson, N.F. (2016). What's Old is New Again: Fresh Hope for Treatment Refractory Hypersomnolence Patients. *Journal of Clinical Sleep Medicine*. 12, 1322 (Please read this before Trotti, 2016)

Assignment:

Take Home Quiz due Monday, March 4

March 8 Sleep Apnea and Obesity
Sander Gilman PhD

Readings:

Charles Dickens, *Pickwick Papers* (Project Gutenberg on line: Chapters 4/IV, 5/V, 6/VI, 8/VIII, 28/XXVIII, 54/LIV)

Sander L. Gilman, *Obesity: The Biography* (Oxford: Oxford University Press, 2010), pp. 1-20.

Assignment: Choose and download an app designed to promote sleep. Use it for two weeks and then write an essay critically evaluating the app. Discuss the science behind the app, the qualifications of the app developer, and whether or not you think the app is useful and provides accurate information. Be prepared to share your findings on March 30

March 15 Spring Break

March 23 Impact of Work and School Schedules on Sleep
Ann E. Rogers PhD, RN

Readings:

Bonnefond A; Tassi P; Roge J; Muzet A. (2004). A critical review of techniques aiming at enhancing and sustaining worker's alertness during the night shift. *Industrial Health, 351*, 1838-1848.

Landrigan CP, Rothschild JM, Cronin JW, Kaushal R, Burdick E, Katz JT, Lilly CM, Stone PH, Lockley SW, Bates DW, Czeisler CA. (2004) Effect of Reducing Interns' Work Hours on Serious Medical Errors in Intensive Care Units. *New Engl J Med.* 2004 351, 1838-48.

Rogers, A.E., Hwang, W-T, Scott, LD, Aiken, L.H. & Dinges, DF. (2004). The working hours of hospital staff nurses and patient safety. *Health Affairs, 23*, 202-212.

Yuan, X., Zhu, C., Wang, M., Mo, F., Du, W., & Ma, X. (2018). Night shift work increases the risks of multiple primary cancers in women: A systematic review and meta-analysis of 61 articles. *Cancer Epidemiology, Biomarkers & Prevention, 27*, 25-40.

Assignment:

Write a short essay describing your future career, and identify if it will have an impact on your sleep patterns. Consider whether you will be working non-standard hours, long hours or be faced with a long commute.

Let Dr. Rogers know via email which app you've been testing for the class on March 29

March 29 Sleep and Technology
Ann E. Rogers PhD, RN

Readings:

Fossum IN; Nordnes LT; Storemark SS; Bjorvatn B; Pallesen S. (2014) The association between use of electronic media in bed before going to sleep and insomnia symptoms, daytime sleepiness, morningness, and chronotype. *Behavioral Sleep Medicine*. 12(5):343-57,

Riley WT; Mihm P; Behar A; Morin CM. (2010) A computer device to deliver behavioral interventions for insomnia. *Behavioral Sleep Medicine*. 8:, 2-15.

Baron KG, Duffecy J, Reid K, Begale M, Caccamo L. (2018). Technology-Assisted Behavioral Intervention to Extend Sleep Duration: Development and Design of the Sleep Bunny Mobile App. *JMIR MENT HEALTH* 5(1): e3.

April 5

Sleep and Music

Ann E. Rogers PhD, RN

Readings:

Eggermont S; Van den Bulck J. (2006). Nodding off or switching off? The use of popular media as a sleep aid in secondary-school children. *Journal of Paediatrics & Child Health*. 42, 428-33,

Iwaki T; Tanaka H; Hori T. (2003) The effects of preferred familiar music on falling asleep. *Journal of Music Therapy*, 40, 15-26.

Loewy, J., Stewart, K., Dassler, A-M., Telsey, A., & Homel, P. (2013). The effects of music therapy on vital signs, feeding and sleep in premature infants. *Pediatrics*. 131, 902-918

April 12

Sleep and Culture

Ann E. Rogers PhD, RN

Readings:

Mindell, J.A., Sadeh, A., Kwon, R., & Goh, D.Y.T. (2013) Cross cultural differences in the sleep of preschool children. *Sleep Medicine*. 14, 1283-1289.

Mindell, J.A., Sadeh, A., Kwon, R., & Goh, D.Y.T. (2013). Cross-cultural comparison of maternal sleep. *Sleep*. 36, 1699-1706.

Worthman, C.M. & Brown, R.A. (2013). Sleep budgets in a globalizing world: Biocultural interactions influence sleep sufficiency in Egyptian families. *Social Science and Medicine*. 79, 31-39.

Worthman, C.M. & Brown, R.A. (2007). Companionable sleep: Social regulation of sleep and co-sleeping in Egyptian families. *Journal of Family Psychology*, 21, 124-135.

April 19 Historical Changes in Sleep
Ben Reiss PhD

Readings:

Reiss, Benjamin, *Wild Nights*, Introduction and Chapter 4

April 26 Research on Sleep at Emory
Dayna A. Johnson PhD
Victoria Pac PhD, RN
Ann E. Rogers PhD, RN

Readings:

Gill, S., & Panda, S. (2015). A smartphone app reveals erratic diurnal eating patterns in humans that can be modulated for health benefits. *Cell Metabolism*. 22, 789-798.

Johnson, D.A., Thomas, J.S., Abdalla, M., Guo, A., Yano, Y., Rueschman, M., Tanner, R.M., Mittleman, M.A., Calhoun, D.A., Wilson, J.G., Muntner, P., & Redline, S. (2018). Association between sleep apnea and blood pressure control among Blacks: Jackson Heart Sleep Study. *Circulation*, epub ahead of print

Pak, V.M., Grandner, M., & Pack, A. (2013). Circulating adhesion molecules in sleep apnea and cardiovascular disease. *Sleep Medicine Reviews*. 18, 25-34.