

## EMORY UNIVERSITY

**COURSE NUMBER, TITLE:** Health 385-01 The Science and Culture of Sleep

**PRE REQUISITES:** At least sophomore status

**CO REQUISITES:** None

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

**PLACEMENT:** Spring

**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:**

Although we spend approximately one-third of lives asleep, its exact purpose is unknown. According to recent studies sleep is linked to health and that insufficient sleep is associated with obesity, cancer and many other health problems. Indeed, sleep deprivation is one of the forms of torture banned by international law. Although sleep is a universal phenomena, when and how we imagine sleep is determined by culture and within a given culture ideas of sleep change over time. Recently, there has been the development of critical sleep studies in history as well as literary studies. Sleep is a trope in all literary traditions but always with different implications. Lysander is sleeping when Puck administers a magic potion in Shakespeare *Midsummer's Night Dream*. Other tales such as that of Rip van Winkle involve characters sleeping for several decades and awakening to find everything quite different. While still other works describe individuals with sleep disorders e.g., the Fat Boy in Charles Dickens *The Pickwick Papers*. Although music has been thought to induce sleep since Biblical times, scientific studies have shown that music may actually disrupt sleep. The lullaby as well as other sleep-oriented forms of music however have a strong cultural presence in the West. All reflect on the experiences, science, and representations of sleep in the West.

### **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.

### **Course Policies**

This course adheres to the Emory College's Honor Code, found at:  
[http://www.college.emory.edu/current/standards/honor\\_code.html](http://www.college.emory.edu/current/standards/honor_code.html).

### **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., Ewerts, 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-CONFIRMED

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  $\gamma$ -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 22      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.

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

Readings:  
To be announced

**Addendum by the Office of Undergraduate Education  
Office for Undergraduate Education – Information for Syllabus – Spring 2018**

- The Office for Undergraduate Education (OUE) central office is located in White Hall 300
- Please visit or call 404.727.6069 with questions about academic affairs, concerns or policies.
  
- All Emory College of Arts and Sciences policies may be found in the College Catalog:  
<http://college.emory.edu/home/academic/catalog/index.html>
  
- For a full list of Religious Holidays can be found here:  
[http://www.religiouslife.emory.edu/traditions/calendar\\_2015.cfm](http://www.religiouslife.emory.edu/traditions/calendar_2015.cfm)

**Academic Advising and Class Deans**

If you have any academic concerns or questions about Emory College of Arts and Sciences policies, you should first meet with an OUE academic adviser. If an academic adviser is unavailable to meet with you, you may meet with an OUE dean during open hours.

- OUE Academic Adviser appointments: Visit White Hall 300 or call 404.727.6069
  
- Deans' Open Hours:  
<http://college.emory.edu/home/administration/office/undergraduate/hours.html>

### **Academic Support**

There are a range of resources available to Emory undergraduates designed to enrich each student's educational experience.

- Visit <http://college.emory.edu/advising> for a list of support programs and appointment directions

### **Access and Disability Resources**

Students with medical/health conditions that might impact academic success should visit Access, Disability Services and Resources (ADSR formerly the Office of Disability Services, ODS) to determine eligibility for appropriate accommodations. Students who receive accommodations must present the Accommodation Letter from ADSR to your professor at the beginning of the semester, or when the letter is received.

### **Honor Code**

Upon every individual who is a part of Emory University falls the responsibility for maintaining in the life of Emory a standard of unimpeachable honor in all academic work. The Honor Code of Emory College is based on the fundamental assumption that every loyal person of the University not only will conduct his or her own life according to the dictates of the highest honor, but will also refuse to tolerate in others action which would sully the good name of the institution. Academic misconduct is an offense generally defined as any action or inaction which is offensive to the integrity and honesty of the members of the academic community.

- The Honor Code, a list of offenses and the Honor Council process may be found; [http://college.emory.edu/home/academic/policy/honor\\_code.html](http://college.emory.edu/home/academic/policy/honor_code.html)