

# DEPAUL UNIVERSITY

SCHOOL FOR NEW LEARNING

*Distance Education*



## THE CREATIVE BRAIN COURSE STUDY GUIDE

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School for New Learning, DePaul University Chicago  
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## Welcome to SNL Online

### Getting Started

Once you have registered for this course, you should have received an email from the Center for Distance Education confirming your registration and providing further information. If you have not received an email from CDE, please call CDE at 1-866-SNL-FORU or email [support@snlonline.net](mailto:support@snlonline.net)

The online component of this course is located at <https://www.snlonline.net/login/default.asp>

In order to log into the online component of the course, you will need a username and password. During the first week of the course, you will receive instructions via email from CDE staff on how to create a username and password.

**New Users:** If you have not taken an SNL Online course in the past, you will need to create a username and password to access the online learning environment. Visit <https://www.snlonline.net/info/registerstudent.asp> to create your login credentials. PLEASE NOTE: Usernames and passwords cannot begin with numbers. Usernames and passwords should be 5 to 8 characters long without any spaces in between. Please use only alphanumeric characters (the letters A-Z and the numbers 0-9) to create your username and password. Special characters in file names may NOT be used (e.g., # % & +? " < \ /).

**Returning Users:** If you have taken an SNL Online course before, you can continue to use the same username and password for all of your courses. If you have forgotten your password, you must create a new username and password for yourself by visiting <https://www.snlonline.net/info/registerstudent.asp>

The Center for Distance Education uses the address listed in the "HOME email address" field on Campus Connection <https://campusconnect.depaul.edu> as our primary method of contacting you. You are responsible to make sure you keep your email address updated on Campus Connection. If you do not have your username and password for Campus Connection, you can request your credentials by filling out the form at <http://www.snlonline.net/pdfs/IDServicesRequest.pdf> printing it and faxing it to 312-362-5053. If you update your email address on Campus Connection, please also make sure to inform the Center for Distance Education office. You can contact the Center for Distance Education office via:

Phone: 1-866-SNL-FORU  
Email: [support@snlonline.net](mailto:support@snlonline.net)  
Fax: 312-362-5053

### Credits

This course was designed and produced by Jennifer K. Holtz, Ph.D. and staff at the Center for Distance Education of the School for New Learning of DePaul University.  
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## Technology Requirements

**Consistent access to a computer with an Internet connection is a requirement for this course.**

**You must back up and save all your work on external media (onto floppy disks, CD ROM or some other file storage location) and keep your Anti-Virus application software up-to-date.**

**“Loss of data” from virus infestation or crashed drives in NOT an acceptable excuse for late or missed assignments.**

## Hardware and Software Requirements

### Computers

The minimum requirements for IBM or compatible computers are:

- Pentium III computer running Win ME, Windows 2000 Professional or XP Home Edition or XP Professional (DePaul no longer supports Windows 98)
- 256 MB RAM
- 20 gigabyte hard drive
- 56K baud dial-up modem, or high-speed connection (DSL or a cable modem).
- CD-ROM drive, sound card and speakers
- Monitor with 1024 x 728 pixel resolution or better (32 bit true color)
- Printer

Macintosh users must have System 9.2.2 (or higher) with comparable features.

### Browsers

All of the Center for Distance Education's courses are accessed using a web browser. The following browsers (including the Flash 6 plug-in) are required for our program:

- **Windows:** Internet Explorer 5.5 and higher; Netscape Navigator 4.75 and higher
- **MAC:** Internet Explorer 5.2; Netscape Navigator 7.02

**The following are NOT CURRENTLY SUPPORTED: AOL, Prodigy, CompuServe, and the browsers: Opera, Mozilla, and Safari.**

In the future, courses may require newer browser versions. Therefore, you should regularly update your browser(s) to take advantage of their new features. To check if your computer meets the browser requirements for the program, please visit <http://www.snlonline.net> and go to the Browser test page [http://www.snlonline.net/prospects/technical\\_requirements.asp](http://www.snlonline.net/prospects/technical_requirements.asp)

## E-mail Account Requirement

You must have an Internet e-mail account. You can use your depaul.edu email account for this course. Your Internet Service Provider (e.g. SBCglobal.net, Earthlink.net, Comcast.net, etc.) may provide an e-mail account that you can use specifically for your snlonline.net courses, or you can use one of the free services (e.g. Yahoo.com).

We recommended that you establish and use a single email account that allows you to send and receive emails, with attachments. We recommend your using an email account that gives you the option to set security on incoming messages.

**Hotmail and AOL mail are NOT recommended for the Distance Education program** as their spam filters often refuse passage to emails from the course email lists.

## Software

You should have a recent version of Microsoft Office (Office 2000 or higher). Other required, but free programs, include QuickTime 6.0 or Windows Media Player, Acrobat Reader 6.0.1 or higher and WinZip evaluation version 8.1 or higher. These programs can be downloaded from [http://www.snlonline.net/prospects/technical\\_requirements.asp](http://www.snlonline.net/prospects/technical_requirements.asp)

## Using the WebBoard/Discussion Conferences

All the discussion that would ordinarily take place in a classroom takes place in the WebBoard Discussion Conferences in your online course. Just as you are expected to attend a course scheduled to take place in a classroom, so you must attend to your online course, **at least four times a week**. This is done by going to the Discussion Conference area to read what is written there and to contribute to the ongoing discussion.

When you login to your course, click on "Discussion Conference." You will use your same course username and password to login to the Discussion Conferences as you do to login to your course.

If you are taking an SNL Online course for the first time, *you must update your profile* on the WebBoard Discussion Conference. You do this by clicking on the "MORE" option on the discussion conference. Please complete all the requested information. If you do not do so, you will appear as a "**deleted user**" when you post a message.

Please do not change your username and password in the "Discussion Conference" section of the course or you will be locked out of the Discussion Conferences. For more information on using the "Discussion Conference", visit <https://www.snlonline.net/pdfs/webboard-basics.pdf>

## Time Management

SNL's online courses are **not** self-paced and require a regular time commitment EACH week throughout the quarter.

Online courses are no less time consuming than "face to face" courses. You will have to dedicate some time every day or at least every second day to your studies. A typical four credit hour "face to face" course at SNL involves three hours of classroom meeting per week, plus at least three to six hours of study and homework per week.

This course will require at least the same time commitment, but your learning activities will be spread out through the week. If you have any problems with your technology, or if you need to improve your reading or writing skills, it may take even longer.

If you find yourself getting behind, please contact your course facilitator immediately.

## Academic Integrity

Please become familiar with <http://studentaffairs.depaul.edu/handbook/code16.html>

**Plagiarism:** Plagiarism is a major form of academic dishonesty involving the presentation of the work of another as one's own. Plagiarism includes but is not limited to the following:

- The direct copying of any source, such as written and verbal material, computer files, audio disks, video programs or musical scores, whether published or unpublished, in whole or part, without proper acknowledgement that it is someone else's.
- Copying of any source in whole or part with only minor changes in wording or syntax, even with acknowledgement.
- Submitting as one's own work a report, examination paper, computer file, lab report or other assignment that has been prepared by someone else. This includes research papers purchased from any other person or agency.
- The paraphrasing of another's work or ideas without proper acknowledgement.

Plagiarism, like other forms of academic dishonesty, is always a serious matter. If a facilitator finds that a student has plagiarized, the appropriate penalty is at the facilitator's discretion. Actions taken by the facilitator do not preclude the college or the university from taking further punitive action including dismissal from the university.

## Your Facilitator's Role

Your facilitator's role in this course is that of a discussion facilitator and learning advisor. As facilitator, s/he will read all postings to the general discussion forums on a daily basis but may not choose to respond to each posting. You will receive feedback to assignments posted to your personal conferences in your personal conferences, or delivered to your facilitator via email.

The facilitator may choose to designate "office hours" when s/he will be online and available and will immediately respond to questions. Depending on the facilitator, this

response may be by e-mail, instant messenger or telephone. Otherwise, you will *usually* receive a response within 24 hours during the week and within 48 hours over the weekend. *At all times, you are to respect the instructor's schedule.*

## Your Role as a Student

As an online student, you will be taking a proactive approach to your learning. As the course facilitator's role is that of a learning guide, your role is that of the leader in your own learning.

You will be managing your time so that you can complete the readings, activities and assignments for the course, and you will also be expected to take a more active role in peer learning.

You will learn with and from your classmates in the online discussions and group assignments, sharing information and resources and posting your ideas and critiquing and expanding on the ideas of others in a collegial fashion. You are encouraged to bring your questions to the online discussions and respond to each other—do not always wait for the facilitator to answer questions.

## Incomplete Grades

If you need to take a grade of “incomplete” in this course, you must first discuss this with your course facilitator before the ninth week at the latest. Incomplete grades are given at the discretion of the facilitator.

You must request an incomplete grade in writing two weeks before the end of the quarter. Incomplete grades will be considered only after you have *satisfactorily* completed at least 75 percent of the coursework. Do not assume that you will qualify for an incomplete. Students who are failing the course at the point where they request an incomplete will not receive one.

If you do receive permission from the facilitator to take an incomplete in the course, you will be required to complete a contract with the facilitator, specifying how you will finish the missing work within the next two quarters. Incompletes not finished by the end of the second quarter will automatically become an F grade on your transcript.

## How to Do Well In This Class

This section provides a few hints on how to do well in this class:

1. Participate in class discussions. The class discussions and homework exercises are worth a large percentage of your grade. Most modules ask you to post an opinion and include a follow-up. Don't miss the follow-up posting.
2. Don't fall behind - In general once a discussion is graded its over. Don't think you can post discussion items several weeks after they are graded and expect credit. The class has moved on and it is difficult for course administrators to find your postings after it has been graded.

3. Read the assignments carefully. If the assignment says answer three questions, then answer three. If it says use APA research paper style, then find out what that style is and use it.
4. Email questions. When you have any questions, email your facilitator. If your facilitator posts a question to you (via your private discussion conference) then answer it (it often means your facilitator cannot find an assignment of yours).
5. Post all assignments by the specified Due Date

## **Final Note**

Participating in SNL courses can be an enriching, rewarding experience and a chance to share ideas in a safe environment.

Some difficulties at the beginning of an online course are quite normal; solving them is part of every distance learning experience.

Enjoy your journey into lifelong learning!



# The Creative Brain

## Introduction

### Course Description

While brain structure and function can seem daunting, exploring this organ from the perspective of creativity will give you a nonthreatening frame of reference to which you can relate. You will review your own experiences with creative expression and personal perspectives of creativity, including how creativity is demonstrated in your career field. You will examine basic brain anatomy and physiology. You will explore traditional and contemporary theories of creativity and of “mind” versus brain, as well as how creativity is perceived in society. As a final project, you will work in groups to explore one of several brain disorders historically considered related to creative expression

### Course Competences

In this course, you will develop up to two of the following competences:

Competence	Competence Statement
A-3-G	Can assess the assumptions and implications of significant ideas about human experience.
A-5	Can define and analyze a creative process.
H-3-X	Can explain the effect of one’s personal culture on creative expression.
S-2-A	Can describe, differentiate, and explain form, function, and variation within biological systems.

### Relationship of this course to the competence statements

All of you will explore basic brain anatomy and physiology, as well as how the brain facilitates and affects creative expression. You will be exposed to basic tenets of the psychology of creativity. This content defines the course. You will all develop a “Creative Me” autobiography to examine your experiences with and assumptions about creative expression. You will work in groups to complete a final project that explores one of several brain disorders historically considered related to creative expression. **In addition:**

A-3-G: Can assess the assumptions and implications of significant ideas about human creativity.

1. Identifies significant traditions’ ideas about the meaning of human creativity.
2. Identifies appropriate criteria to compare these ideas
3. Applies these criteria to the assumptions and implications of creativity theories.

If you opt to address this competence, you will compare and contrast historical, traditional and contemporary theories of creativity. You will post your findings

to the WebBoard and lead class discussion about your results. You will re-examine your “Creative Me” autobiography in light of what you learn and submit an addendum paragraph.

A-5: Can define and analyze a creative process.

1. Can define the concept of creativity.
2. Can identify, analyze, and describe the components of a creative process in a field of human endeavor.
3. Can explain how engaging in a creative process affects one’s perception of the world.

If you opt to address this competence, you will select a creative output of interest, whether it be a book, painting, style of architecture, software innovation or other artifact. You will examine your objects in light of historical, traditional, or contemporary theories of creativity, and how the writer, artist, architect, developer or other creator fit within the theory or tradition. You will post your findings to the WebBoard and lead class discussion about your results. You will re-examine your “Creative Me” autobiography in light of what you learn and submit an addendum paragraph.

H-3-X: Can explain the effect of one’s personal culture on creative expression.

1. Identifies one or more ethnic or career cultures to which the student belongs and describes the cultural characteristics of each.
2. Describes how each group interprets, encourages and discourages creative expression.
3. Explains how the cultural characteristics affect the learner’s perception and expression of creativeness.

If you opt to address this competence, you will investigate how either an ethnic culture or a career culture of specific interest to you interprets, encourages and/or discourages creative expression. You will post your findings to the WebBoard and lead class discussion about your results. You will re-examine your “Creative Me” autobiography in light of what you learn and submit an addendum paragraph.

S-2-A: Can describe, differentiate, and explain form, function, and variation within biological systems.

1. Describes the nervous system in terms of brain structure and function.
2. Describes the healthy functioning of the brain.
3. Describes the unhealthy brain as it pertains to mind v. brain aspects of creativity.

If you opt to address this competence, you will compare and contrast historical, traditional and contemporary theories of mind versus brain, including a discussion of our evolving understanding of brain structure, function and

malfunction. You will post your findings to the WebBoard and lead class discussion about your results. You will re-examine your “Creative Me” autobiography in light of what you learn and submit an addendum paragraph.

## Course Learning Goals

After completing this course, you will be able to:

- identify basic brain structures and their positions.
- explain in general terms what each structure does.
- explain which structures do not have a known function.
- explain how creativity is defined.
- describe how at least one brain disorder affects creative expression.
- describe how what they learned applies to their own experience with creative expression.

If you opt to address competence A-3-G you will be able to:

- *compare* historical, traditional and contemporary theories of creativity.
- *contrast* historical, traditional and contemporary theories of creativity.

If you opt to address competence A-5 you will be able to:

- define the concept of creativity.
- describe a product of creative expression in light of a historical, traditional or contemporary theories of creativity

If you opt to address competence H-3-X you will be able to:

- identify one or more ethnic or career cultures to which you belong and describe the cultural characteristics of each.
- describe how the selected culture interprets, encourages and discourages creative expression.

If you opt to address competence S-2-A you will be able to:

- *compare* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction.
- *contrast* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction.

## Course Structure

This course consists of nine modules, with learning activities and assignments for each one. The first four modules address brain structure and function, the fifth module wraps up the brain and introduces creativity, and the remaining four modules focus on creativity. The following table outlines the course:

## Course Map

Module	Week	Module Theme	Learning Activities	Assignment # & Due Dates
1	1	Introducing the brain	<ul style="list-style-type: none"> <li>Greenfield, Ch. 1</li> <li>Pinel, Ch. 2</li> <li>View imaging files 1-10</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 1, Week 1</li> <li>Assignment 2, Week 1</li> </ul>
2	2	Cells and electricity	<ul style="list-style-type: none"> <li>Greenfield, Ch. 3</li> <li>Pinel, Ch. 3</li> <li>View imaging files 12-14</li> <li>Begin reading mental illness material</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 3, Week 2</li> <li>Assignment 4, Week 2</li> </ul>
3	3	Child to adult	<ul style="list-style-type: none"> <li>Greenfield, Ch. 4</li> <li>Pinel, Ch. 1 &amp; 4</li> <li>Finish reading mental illness material</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 5, Week 3</li> <li>Assignment 6, Week 3</li> <li>Assignment 7, Week 3</li> </ul>
4	4	Sense & movement	<ul style="list-style-type: none"> <li>Greenfield, Ch. 2</li> <li>Pinel, Ch. 5</li> <li>Pinel, Ch. 7.2</li> <li>Pinel, Ch. 8.1 &amp; 8.3</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 8, Week 4</li> </ul>
5	5/6	The transition to mind	<ul style="list-style-type: none"> <li>Greenfield, Ch. 5</li> <li>Pinel, Chs. 10, 11, 12</li> <li>Amabile, Ch. 1</li> <li>Churchland, pp 278-286</li> <li>Brain Zone: Creativity</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 9, Week 6</li> <li>Assignment 10, Week 6</li> </ul>
6	7	What is creativity?	<ul style="list-style-type: none"> <li>Amabile, Ch. 2</li> <li>Boden</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 11, Week 6</li> </ul>
7	8	Constraints and influences	<ul style="list-style-type: none"> <li>Amabile, Ch. 5 &amp; 6</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 12-1 for S-2-A, Week 8</li> <li>Assignment 13-1 for S-2-A, Week 8</li> <li>Email draft of final project, Week 8</li> </ul>
8	9	Society and creativity	<ul style="list-style-type: none"> <li>Amabile, Ch. 7 &amp; 8</li> <li>Schwab</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 12-2 &amp; 13-2 for H-3-X, Week 9</li> <li>Assignment 12-3 &amp; 13-3 for A-3-G, mid-Week 9</li> <li>Assignment 12-4 &amp; 13-4 for A-5, mid-Week 9</li> </ul>
9	10	Enhancing Creativity	<ul style="list-style-type: none"> <li>Amabile, Ch. 9</li> </ul>	<ul style="list-style-type: none"> <li>Assignment 15, Week 10</li> <li>Assignment 16, Week 10</li> </ul>

**Note:** For exact dates of modules and assignment due dates, consult the course Web Board discussion forum. The 11<sup>th</sup> week is used for revisions and resubmission of assignments in lieu of final examinations.

## Course Resources

### Textbooks

Amabile, Teresa M. (1996). *Creativity in context*. Boulder, Colorado: Westview Press.

Amabile is a pre-eminent researcher in social aspects of creativity, but she also has extensive backgrounds in biology and education, which help boost the “readability” quotient of her books. For those of you accustomed to reading research reports, and presumably those who have already completed Research Seminar, you will appreciate the clarity with which she explains the studies to which she refers. This is an update to her classic, *Social Psychology of Creativity* (1983).

Greenfield, Susan A. (1997). *The human brain: a guided tour*. New York: Basic Books.

Susan Greenfield has earned widespread acclaim for her ability to make complex scientific information accessible to lay readers. She is an accomplished researcher and educator who has written several books about the human brain, any one of which could have served as a suitable text for this course.

Pinel, John P.J. (1998). *A colorful introduction to the anatomy of the human brain*. Boston: Allyn & Bacon.

Pinel’s “coloring books” are used extensively by professional, graduate and undergraduate students who need either a review or an introduction to the human body. From an instructional perspective, coloring is optional, although highly recommended; anything that reinforces information anchors that information more firmly in memory. Please read the preface for advice on how to best use the book and its numerous learning aides.

### Required Readings (posted on WebBoard)

Boden, Margaret A. (1991). *Précis of “The creative mind: myths and mechanisms”*. Retrieved on February 1, 2004 from <http://bbsonline.cup.cam.ac.uk/Preprints/OldArchive/bbs.boden.html>.

Brain Zone: Creativity. n.d. Retrieved February 1, 2004 from <http://www.knowl.demon.co.uk/page46.html>.

Churchland, Paul M. (1995). *The engine of reason, the seat of the soul*. Cambridge, MA: The MIT Press.

Cromie, William J. n.d. *Creativity tied to mental illness*. Retrieved on January 28, 2004 from <http://www.news.harvard.edu/gazette/2003/10.23/01-creativity.html>.

Davis, Laurie. n.d. *Mental illness meets creativity in new journal of literary arts*. Retrieved on January 28, 2004 from <http://chronicle.uchicago.edu/020307/awakenings.htm>.

Gosselink, Laura. n.d. *Creativity and mental illness*. Retrieved on January 28, 2004 from <http://serendip.brynmawr.edu/bb/neuro/neuro99/web2/Gosselink.html>.

Mojica Rey, Camille. n.d. Researchers find link between creative genius and mental illness. Retrieved on January 28, 2004 from [http://news-service.stanford.edu/news/2002/june12/crazy\\_genius.html](http://news-service.stanford.edu/news/2002/june12/crazy_genius.html).

Schwab, Helmut. (1994). *Creative thought*. Retrieved on February 1, 2004 from <http://www.schwab-writings.com/bm/cth/index.html>.

### Radiographic and Microscopic Images (posted on WebBoard)

#	Image	Web site	Retrieval date
1	Brain angiogram with right side blockage	<a href="http://www.medscape.com/viewarticle/418277_print">http://www.medscape.com/viewarticle/418277_print</a>	1/31/04
2	Brain CT angiogram	<a href="http://www.pahcs.com/radiology/angiography.html">www.pahcs.com/radiology/angiography.html</a>	1/31/04
3	Cerebral angiogram with right aneurysm	<a href="http://www.medscape.com/viewarticle/450300_print">www.medscape.com/viewarticle/450300_print</a>	1/31/04
4	Labeled brain MRI	<a href="http://isc.temple.edu/neuroanatomy/lab/cormri22.jpg">http://isc.temple.edu/neuroanatomy/lab/cormri22.jpg</a>	1/30/04
5	Brain PET scan	<a href="http://www.er.doe.gov/Science_News/feature_articles_2002/June/Food_Addiction/Foodmotive-PET.jpg">http://www.er.doe.gov/Science_News/feature_articles_2002/June/Food_Addiction/Foodmotive-PET.jpg</a>	1/31/04
6	Noncontrast brain CT	<a href="http://www.medscape.com/content/2003/00/45/28/452834/452834_fig.html">http://www.medscape.com/content/2003/00/45/28/452834/452834_fig.html</a>	1/31/04
7	PET brain activity	<a href="http://livefromcern.web.cern.ch/livefromcern/antimatter/everyday/everydaypictures/brain-read.gif">http://livefromcern.web.cern.ch/livefromcern/antimatter/everyday/everydaypictures/brain-read.gif</a>	1/30/04
8	SPECT brain functions	<a href="http://www.er.doe.gov/Sub/Accomplishments/Decades_Discovery/images/94.jpg">http://www.er.doe.gov/Sub/Accomplishments/Decades_Discovery/images/94.jpg</a>	1/31/04
9	Brain plain x-ray	<a href="http://www.bladewalker.com/Performance/pix/Xray.jpg">http://www.bladewalker.com/Performance/pix/Xray.jpg</a>	1/31/04
10	Sagittal MRI of the corpus callosum	<a href="http://www.macalester.edu/~psych/whathap/UBNRP/Split_Brain/sagittal-mri.gif">http://www.macalester.edu/~psych/whathap/UBNRP/Split_Brain/sagittal-mri.gif</a>	1/30/04
11	Corpus callosum and creativity	<a href="http://www.its.caltech.edu/~jbogen/text/tocosotb.htm">http://www.its.caltech.edu/~jbogen/text/tocosotb.htm</a>	1/30/04
12	Electron micrograph of neural synapses	<a href="http://www.mc.vanderbilt.edu/research-em/EM%20Images/synapse.jpg">http://www.mc.vanderbilt.edu/research-em/EM%20Images/synapse.jpg</a>	1/31/04
13	Neuron electron micrograph	<a href="http://synapses.mcg.edu/atlas/1_3_8.stm">http://synapses.mcg.edu/atlas/1_3_8.stm</a>	1/31/04
14	Neuronal electron micrograph	<a href="http://synapses.mcg.edu/learn/visualize/sem.stm">http://synapses.mcg.edu/learn/visualize/sem.stm</a>	1/31/04

## Assessment of Learning

### Assessment Criteria for each Competence

You will participate consistently and constructively by completing the activities listed below by their due dates:

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You will:

- identify basic brain structures and their positions, as evidenced by posted Pinel exercise answers.
- explain in general terms what each structure does, as evidenced by posted Pinel exercise answers and appropriate references in assignments.
- explain which structures do not have a known function, as evidenced by posted Pinel exercise answers and appropriate references in assignments.
- describe how creativity is defined, as evidenced through posted discussion and by appropriate references in assignments.
- describe how at least one brain disorder affects creative expression, as evidenced by completion of the final project according to guidelines provided.
- describe your personal experiences with and perspectives of creative expression, and how those perspectives are affected by what is learned through the course, as evidenced by completion of the creativity autobiography and its addendum, according to guidelines provided.

If you opt to address competence A-3-G you will also:

- *compare* historical, traditional and contemporary theories of creativity, and
- *contrast* historical, traditional and contemporary theories of creativity, according to guidelines provided, as evidenced by posting of your assessment to the WebBoard and leading class discussion of your assessment on the WebBoard.
- discuss the application of other competences to the general course content, as evidenced by posting to competence-based, learner-led discussions.

If you opt to address competence A-5 you will also:

- define the concept of creativity, and
- describe a product of creative expression in light of historical, traditional or contemporary theories of creativity, according to guidelines provided, as evidenced by posting of your assessment to the WebBoard and leading class discussion about your assessment on the WebBoard.
- discuss the application of other competences to the general course content, as evidenced by posting to competence-based, learner-led discussions.

If you opt to address competence H-3-X you will also:

- identify one or more ethnic or career cultures to which you belong and describes the cultural characteristics of each, and
- describe how the selected culture interprets, encourages and discourages creative expression, according to guidelines provided, as evidenced by posting your assessment to the WebBoard and leading class discussion about your assessment on the WebBoard..
- discuss the application of other competences to the general course content, as evidenced by posting to competence-based, learner-led discussions.

If you opt to address competence S-2-A you will also:

- *compare* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction, and
- *contrast* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction, according to guidelines provided, as evidenced by posting of your assessment to the (name) conference and leading class discussion of your assessment.
- discuss the application of other competences to the general course content, as evidenced by posting to competence-based, learner-led discussions.

Your competence-specific tasks are posted on time and include all components described in the guidelines, and you actively lead discussion about your postings. Guidelines for leading the discussion are provided with the assignment, but all postings are evaluated as indicated in “Assessment Criteria for Online Discussion Participation” and all written assignments are evaluated as indicated in “Assessment Criteria for Online Discussion Participation.”

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You consistently, actively, and in a timely fashion participate in online discussions. You will receive feedback from the instructor as to whether your participation is appropriate, as per “Assessment Criteria for Online Discussion Participation.” In any case, you have the opportunity to comment on the opinion of the instructor.

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You submit your final projects by the due date. Note that a first submission and a revised submission are required for both papers and PowerPoint® presentations. The first submission is considered a draft that has been rewritten, reformatted and revised before it is handed in. It is not considered an initial draft, so must show attention to proper form. All written assignments are evaluated as indicated in “Assessment Criteria for Online Discussion Participation.” PowerPoint® guidelines will be provided with the assignment.

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## Assessment Criteria for Writing Assignments

- All writing assignments are to be submitted according to APA standards. Citation guides are available at [http://www.lib.depaul.edu/eresource/infotype\\_subject\\_search.asp?MaterialID=8](http://www.lib.depaul.edu/eresource/infotype_subject_search.asp?MaterialID=8).
- It is strongly suggested that if you are using word processing software that you use spell- and grammar-check tools before submitting any draft or final project. In any case, proofreading is essential.
- The previous caution also applies to email and WebBoard postings. While daily postings on the WebBoard may be less formal than submitted assignments, under no circumstances should correct punctuation, correct spelling or the division of posted material into paragraphs be considered optional.

## Assessment Criteria for Online Discussion Participation

- In online discussions, you will clearly and consistently link what you are learning in the course, including course readings, to your real life experiences. These discussions are a place for you to exchange reflections with others in the class.
- Specifically, in order to receive credit for participation in the online discussion parts of the course it is important that:
  1. you actively contribute to the online discussions in a collegial fashion, maintaining a respectful tone toward other participants, greeting others by name and closing with a signature.
  2. you demonstrate good “listening” skills and active inquiry skills in the online discussions. This means that you should pay attention, address the commentary of others with openness, and offer constructive and interested commentary, whether in the form of questions or statements.
  3. you contribute original ideas to the online discussion in ways that facilitates learning for other people, relating personal ideas to course ideas.

you otherwise follow the “Online Participation Guidelines.”

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## Online Participation Guidelines

- Participation is essential, so please connect to the course at least every second day, preferably daily.
- Post responses to the discussion assignments in the first part of the week; in the second part of the week post comments to other class members.

- Discuss critically, give support to your peers, provide your own ideas and experiences, challenge the ideas of others or just make a comment that you read the posting.
- The role of the facilitator is to make it easy for learners to interact, to promote significant discussion, to give feed back on postings and offer help where needed.
- This is not an independent study course, but a paced online group learning experience. This study guide indicates 6 to 11 hours per week of time is to be spent on this course of ten weeks.
- Please accept the challenge to work with others, to construct knowledge in negotiation with others. Working individually on the assignments and just posting them might not lead to significant knowledge and skills.

## Course Grading Scale

A = 95 to 100	A- = 91 to 94	B+ = 88 to 90
B = 85 to 87	B- = 81 to 84	C+ = 77 to 80
C = 73 to 76	C- = 69 to 72	D+ = 65 to 68
D = 61 to 64	F = 60 or below	INC

## Percent distribution of assignments

Assignment	%
Autobiography	15
WebBoard postings	20
Pinel composite score	15
Competence presentations	20
Peer evaluation	10
Final project	20



## Module 1 – Introducing the Brain

### Introduction and Overview

Module 1 introduces you to both the class and the structure of the brain.

In your introduction to yourself, please tell us your name, your career field, where you are joining us from and the reason for your interest in the course. In addition, tell us whether you consider yourself a creative person and why or why not. After you read what your classmates have to say, feel free to respond to anyone with whom you share interests, or anyone whom you find interesting for some other reason. The goal is twofold: to help you get to know each other and to help you become comfortable responding to each other's postings.

Our journey into the brain begins with an introduction to its geography, or the system used to describe positions in the brain (Pinel). This is an important foundation for the rest of the course. In addition to structure, Greenfield introduces you to how the brain is examined through radiographic techniques. Examples of each type of radiograph are available in the "Course Resources" section of this course for you to examine as you read Greenfield's explanation.

One newer type of technique not addressed by Greenfield is that of SPECT scanning, but an example is included in the Course Resources for you. SPECT, or Single Photon Emission Computed Tomography, is actually a nuclear medicine examination. For this test, a radioactive dye is injected into a patient and, after a period of time to allow the dye to disperse throughout the brain, images are taken. The flow of blood throughout the brain is tracked, comparing the patient to known standards. The sample image provided for you demonstrates normal versus abnormal scans, clearly demonstrating the amount of flow by color intensity, from red (highest flow) to blue (lowest flow).

Where, you might ask, does creativity come into this? Well, minimally, for a couple of weeks. Understanding the general structure of the brain must come before the specific functions that are associated with creativity. When we focus on creativity, the need for this preliminary work will be apparent.

### Learning Objectives


At the end of this module, you will be able:

- given appropriate "geographic" terms, to locate a position in a diagram of the brain
- given a position in the brain, to describe it in appropriate "geographic" terms
- successfully post to the WebBoard

## Module 1 Plan

Learning Resources	Learning Activities	Discussion	Assignments
<ul style="list-style-type: none"> <li>Greenfield</li> <li>Pinel</li> <li>Imaging files 1-10</li> </ul>	<ul style="list-style-type: none"> <li>Read Greenfield, Ch. 1</li> <li>Read Pinel, Ch. 2</li> <li>Look at imaging files 1-10</li> </ul>	<ul style="list-style-type: none"> <li>Introduce yourself in Introduction Conference and respond to others</li> </ul>	<ul style="list-style-type: none"> <li>Introduce yourself</li> <li>Post answers to Pinel exercises 2.2 &amp; 2.3 in your personal conference</li> </ul>


## Module 1 Learning Activities

Activity	Details
 Read	Read Greenfield, Ch. 1. <i>Brain Within Brains</i> Read Pinel, Ch. 2. <i>Planes and Directions in the Human Nervous System</i> Review imaging files 1-10
—	Post to your Personal Conference answers to Pinel exercises 2.2 and 2.3


## Module 1 Discussion

Conference	Topic
Introduction	Post your personal introduction and respond to others

## Module 1 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #1	Introductions Conference Post your personal introduction	 End of Week 1	<input type="checkbox"/>

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Assignment	Topic	Due Date	Completed
Assignment #2	Post answers to Pinel exercises 2.2 & 2.3 to your personal conference	 End of Week 1	<input type="checkbox"/>

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## Module 1 Summary

By the end of Week 1 you should have:

- introduced yourself to others in the class.
- read Greenfield, Ch. 1. *Brain Within Brains*.
- read Pinel, Ch. 2. *Planes and Directions in the Human Nervous System*.
- reviewed imaging files 1-10.
- posted your personal introduction to the WebBoard and responded to others.
- posted answers to Pinel exercises 2.2 and 2.3 to your personal WebBoard conference.



## Module 2 – Cells and Electricity

### Introduction and Overview

Module 2 continues to address the structure of the brain, now in terms of cells and nerve conductivity. In addition, you begin to address creativity by exploring your personal experience, and reflect on what intrigues, surprises or is otherwise new to you. Finally, you will begin to read introductory mental illness material, preparing to select preferences for final project topics next week.

In your “Creative Me” autobiography, describe your life experiences with and personal perspective of creative expression. Think broadly. While traditional modes of creative expression include painting, pottery, singing or playing music, and dance, what else do you consider creative output or indicative of a creative nature? How is creativity manifested in your career field or planned career field? There are no wrong answers; you’re exploring your own world.

Did you know that electricity—the same stuff that powers your computer and your reading lamp—powers YOU? Nerve conduction is simply electricity. Greenfield explains in very clear terms how nerve conductivity works, and Pinel diagrams each part of the nerve cell, or neuron. You might find it helpful to keep Pinel open while you read Greenfield. Actual neurons are best viewed by electron microscope, as seen in images 12, 13 and 14. Structure is still difficult to see, unless you’re an expert, so your best chance of understanding neuron structure is through Pinel’s diagrams.

Beginning with this module and continuing throughout the course, spend some time thinking about what you’ve learned that has intrigued you, surprised you, or simply struck you for some reason. Perhaps something you’ve learned actually contradicts what you’d learned earlier in life, or builds on material from another course. The goal is twofold: first, by documenting what’s new to you throughout the course, you have material to use when you complete your autobiography addendum at the end of the course; second, integrating new knowledge into existing knowledge requires reinforcement and, just as coloring in Pinel reinforces structure, so reflection reinforces new knowledge.

### Learning Objectives


At the end of this module, you will be able to:

- describe your own experience with and personal perspectives of creative expression.
- identify structures of the neuron and their primary functions.

## Module 2 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>Greenfield</li> <li>Pinel</li> <li>Imaging files 12-14</li> <li>Mental illness material: Churchland, Cromie, Davis, Gosselink, Mojica Rey</li> </ul>	<ul style="list-style-type: none"> <li>Read Greenfield, Ch. 3</li> <li>Read Pinel, Ch. 3</li> <li>Look at imaging files 12-14</li> <li>Begin reading mental illness material</li> <li>Write reflection</li> </ul>	<ul style="list-style-type: none"> <li>Post your "Creative Me" autobiography and respond to those of others</li> <li>Post "What's new to you?" and respond to others' comments</li> </ul>	<ul style="list-style-type: none"> <li>Post autobiography</li> <li>Post answers to Pinel exercises 3.2 &amp; 3.3 in your personal conference</li> </ul>



## Module 2 Learning Activities

Activity	Details
 <i>Read</i>	Read Greenfield, Ch. 3. <i>Pulse, Impulse</i> Read Pinel, Ch. 3. <i>Cells of the Nervous System</i> Review imaging files 12-14 Begin reading mental illness material
—	Post to your Personal Conference your answers to Pinel exercises 3.2 and 3.3

## Module 2 Discussion

Conference	Topic
Creative Me	Post your autobiography and respond to others
What's new to you	Post your reflection and respond to others

## Module 2 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #3	Posting to Creative Me Conference	 End of Week 2	<input type="checkbox"/>
Assignment #4	Post to your Personal Conference your answers to Pinel exercises 3.2 and 3.3	 End of Week 2	<input type="checkbox"/>

## Module 2 Summary

By the end of Week 2 you should have

- completed your “Creative Me” autobiography.
- read Greenfield, Ch. 3. *Pulse, Impulse*.
- read Pinel, Ch. 3. *Cells of the Nervous System*.
- reviewed imaging files 12-14.
- posted your “Creative Me” autobiography to the WebBoard and responded to others.
- posted your “What’s new to you” reflection and respond to others.
- posted answers to Pinel exercises 3.2 and 3.3 to your personal conference.



## Module 3 – Child to Adult

### Introduction and Overview

Module 3 continues our exploration of neurons, but from the perspective of the developing human. In addition, during this week you will post your top three choices for final project topics.

The fact that the human skeleton continues to grow after birth seems completely logical; we see children grow larger. What might not seem as logical is that some bone isn't completely formed at birth. While we know about a baby's cranial "soft spot," many might not know that even skeletal bones—the leg bones, for example—have soft spots, or still-developing areas, for several years after birth.

The same is true of the brain, which—if fully developed at birth—would make childbirth as we know it impossible. Greenfield follows development of the brain, including the initial massive increase in neurons, from birth to adulthood and from adulthood through late adulthood. In Pinel, you see the entire structure of the nervous system in Chapter 1, and developmental changes in Chapter 4. Much of this has direct application to the final project.

Think about the continuum from child to adult to older adult and your own experience. What differences have you noticed in the way you learn, how you remember or your ability to concentrate? Do you see differences between your loved ones of different ages? How can you relate those differences to what you've learned so far about the brain? Post your thoughts to "The Developing Human" Conference and compare your conclusions to others'.

As we approach our transition from brain to creativity as our primary focus, it's time to decide final project topics. To ensure that each topic is addressed and that you are able to explore a topic of interest, each of you should post to your personal conference your top three choices among the following: schizophrenia, bipolar depression, major depression, addictive disorders, and autism. Those posting earlier will have the advantage in case too many of you select the same disorder. Those not expressing a preference *by the due date* will be assigned a topic. Details about the final project are provided in Module 4.

### Learning Objectives


At the end of this module, you will be able to:

- diagram the basic divisions of the human nervous system.
- diagram the basic structures of the developing brain.
- explain in general terms what each structure does.
- explain which structures do not have a known function.

### Module 3 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Greenfield</li> <li>• Pinel</li> <li>• Mental illness material: Churchland pp 166-181, Cromie, Davis, Gosselink, Mojica Rey</li> </ul>	<ul style="list-style-type: none"> <li>• Read Greenfield, Ch. 4</li> <li>• Read Pinel, Chs. 1 &amp; 4</li> <li>• Finish reading mental illness materials</li> </ul>	<ul style="list-style-type: none"> <li>• Post “What’s new to you?” and respond to others</li> <li>• Post to “The Developing Human” and respond to others</li> </ul>	<ul style="list-style-type: none"> <li>• Post answers to Pinel exercises 1.2 &amp; 1.3 in your personal conference</li> <li>• Post answers to Pinel exercises 4.2 &amp; 4.3 in your personal conference</li> <li>• Post your top three choices for the final project topic</li> </ul>




### Module 3 Learning Activities

Activity	Details
 <i>Read</i>	Read Greenfield, Ch. 4. <i>Cells Upon Cells</i> Read Pinel, Ch. 1. <i>Organization of the Human Nervous System</i> Read Pinel, Ch. 4. <i>Early Development of the Human Nervous System</i>
—	Post to your Personal Conference answers to Pinel exercises 1.2 and 1.3  Post to your Personal Conference answers to Pinel exercises 4.2 and 4.3
—	Post your top three choices for the final project topic to your personal conference

### Module 3 Discussion

Conference	Topic
<b>The Developing Human</b>	Post your reflection, as described in the module introduction, and respond to others
<b>What’s new to you</b>	Post your “What’s new to you?” reflection and respond to others by the end of Week 3

## Module 3 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #5	Post answers to Pinel exercises 4.2 & 4.3 to personal conference	 End of Week 3	<input type="checkbox"/>
Assignment #6	Post answers to Pinel exercises 1.2 & 1.3 personal conference	 End of Week 3	<input type="checkbox"/>
Assignment #7	Post your top 3 choices for the final project topic	 End of Week 3	<input type="checkbox"/>

## Module 3 Summary

By the end of Week 3 you should have

- read Greenfield, Ch. 4. *Cells Upon Cells*.
- read Pinel, Ch. 1. *Organization of the Human Nervous System*.
- read Pinel, Ch. 4. *Early Development of the Human Nervous System*.
- finished reading the mental illness materials.
- posted your top three choices for the final project topic.
- posted your “What’s new to you” reflection and responded to others.
- posted your “The Developing Human” reflection and responded to others.
- posted your answers to Pinel exercises 1.2, 1.3, 4.2 and 4.3 to your personal conference



## Module 4 – Sense and Movement

### Introduction and Overview

Module 4 is the final structure and function module before we transition to the brain-mind connection and creativity. Just as the last module brought us closer to creativity, this module sets the stage for the disorders associated with creativity. “The brain is vital for processing and coordinating the information that floods in through the senses, with the outputs of the brain expressed as movement” (Greenfield, p. 33). The most serious problems associated with those processes manifest themselves as mental disorders.

By now you have received your assigned final topic. Each topic has a corresponding conference: that is, Schizophrenia Final Project, Bipolar Depression Final Project, Major Depression Final Project, Addictive Disorders Final Project, and Autism Final Project. Your initial task is simply to post an introduction to the appropriate conference, describing your interest.

For the final project you will work in groups to explore your assigned brain disorder. Aspects of the disorder to be addressed include: anatomic and/or physiologic abnormality; diagnosis and treatment; ties to creative expression; and identification and description of the work of organizations or associations related to the disorder. You may add any other information that you consider important or intriguing. *Group communication is to be through the appropriate Final Project Conference so that your instructor can monitor interaction.*

While some of you might already have taken Collaborative Learning (L7), tools for working in groups are provided under Course Resources. Each member of the group will be assessed by all members of the group, using the Team Member Assessment Form. You assess yourself, too, in keeping with SNL’s emphasis on reflective practice.

Your group can present the final project in written or PowerPoint® format. You are expected to have a minimum of seven references and to cite within the final project each reference you list. Written reports must meet the writing guidelines described in this study guide. PowerPoint® presentations must include outline pages to the third level of detail and must meet the guidelines posted under Course Resources. A semi-final draft is due by the end of Week 8, which allows time for editing and revisions by Week 10.

### Learning Objectives


At the end of this module, you will be able to:

- identify basic brain structures and their positions.
- explain in general terms what each structure does.
- explain which structures do not have a known function.

## Module 4 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>Greenfield</li> <li>Pinel</li> </ul>	<ul style="list-style-type: none"> <li>Read Greenfield, Ch. 2</li> <li>Read Pinel, Ch. 5</li> <li>Read Pinel, Ch. 7.2</li> <li>Read Pinel, Ch. 8.1 &amp; 8.3</li> </ul>	<ul style="list-style-type: none"> <li>Post “What’s new to you?” and respond to others</li> <li>Post to your final project team conference</li> </ul>	<ul style="list-style-type: none"> <li>Post answers to Pinel exercises 5.2 &amp; 5.3 in your personal conference</li> </ul>


## Module 4 Learning Activities

Activity	Details
 Read	Greenfield, Ch. 2. <i>Systems of Systems</i> Pinel, Ch. 5. <i>Gross Anatomy of the Human Brain</i> Pinel, Ch. 7.2. <i>Lobes of the Cerebral Hemispheres</i> Pinel, Ch. 8.1. <i>Visual System: From Eye to Cortex</i> Pinel, Ch. 8.3. <i>Auditory System: From Ear to Cortex</i>
—	Post to your Personal Conference answers to Pinel exercises 5.2 and 5.3
—	Post an introduction to your final project conference, describing your interest

## Module 4 Discussion

Conference	Topic
Final Project Conference	Post to the appropriate Final Project Conference an introduction to yourself by the end of Week 4
What’s new to you	Post your “What’s new to you?” reflection and respond to others by the end of Week 4

## Module 4 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #8	Post answers to Pinel exercises 5.2 to your personal conference	 End of Week 4	<input type="checkbox"/>

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## Module 4 Summary

By the end of Week 4 you should have

- read Greenfield, Ch. 2. *Systems of Systems*.
- read Pinel, Ch. 5. *Gross Anatomy of the Human Brain*.
- read Pinel, Ch. 7.2. *Lobes of the Cerebral Hemispheres*.
- read Pinel, Ch. 8.1. *Visual System: From Eye to Cortex*.
- posted an introduction to yourself to the appropriate final project conference.
- posted your “What’s new to you” reflection and respond to others.
- posted answers to Pinel exercises 5.2 and 5.3 to the WebBoard.



## Module 5 – The Transition to Mind

### Introduction and Overview

Module 5 covers Weeks 5 and 6, because this is where we finish brain structure and function with the mind-brain connection, then shift to creativity. The connection between mind/brain and creativity revisits the corpus callosum as a key structure, so images 10 and 11 reappear as learning resources. You continue working on your collaborative final project, and begin work on your competence-specific tasks.

One of the greatest puzzles in the study of the brain is the mind-brain connection. For every fact we know, there's at least one thing we don't know. Greenfield approaches the issue from the perspective of memory (Pinel, Chapter 10). Amabile talks about motivation (Pinel, Chapter 11). Churchland describes the use of language in creative expression (Pinel, Chapter 12). The Brain Zone article speaks strictly to anatomy and physiology. The presence of all these perspectives hints at the breadth and depth of understanding that still eludes us.

What is your understanding of the mind-brain connection? How do you believe your understanding differs from your parents? Grandparents? Thinking broadly, as you did for your Creative Me autobiography, what do you suspect we will know about the mind-brain connection by the end of your life? What will be known in another generation or two? Post your thoughts in the Then-Now-Next Conference and respond to others' thoughts.

Those of you who are taking this course for S-2-A will further explore this issue in your competence-specific task and will lead class discussion on the topic. Considering the wide variety of topics that fall within the issue, you are encouraged—although not required—to divide the topics amongst yourselves.

If you are taking this course for competence A-3-G, you will:

- *compare* historical, traditional and contemporary theories of creativity.
- *contrast* historical, traditional and contemporary theories of creativity.
- post your comparison and contrast to the A-3-G Conference by Tuesday of Week 10.
- lead class discussion of your comparison and contrast in the A-3-G Conference
- participate in discussions that others post about this and other competences.

If you are taking this course for competence A-5, you will:

- define the concept of creativity.
- describe a product of creative expression in light of a historical, traditional or contemporary theory of creativity.
- post your definition and description to the A-5 Conference by Tuesday of Week 10.

- lead class discussion of your definition and description on the A-5 Conference
- participate in discussions that others post about this and other competences.

If you are taking this course for competence H-3-X, you will:

- identify one or more ethnic or career cultures to which you belong, and describe the cultural characteristics of each.
- describe how each group interprets, encourages and discourages creative expression.
- explain how the cultural characteristics affect your perceptions and expressions of creativeness.
- post your cultural review to the H-3-X Conference by the end of Week 9.
- lead class discussion of your assessment on the WebBoard.
- participate in discussions that others post about this and other competences.

If you are taking this course for competence S-2-A, you will:

- *compare* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction.
- *contrast* historical, traditional and contemporary theories of mind versus brain, including our evolving understanding of brain structure, function and malfunction.
- post your comparison and contrast to the S-2-A Conference by the end of Week 8.
- lead class discussion of your comparison and contrast on the S-2-A Conference
- participate in discussions that others post about this and other competences.

When you post your competence assignment, you will also post an addendum paragraph to your “Creative Me” autobiography, reflecting on how what you’ve learned in both the course and in your competence task(s) affects the perspectives that you originally wrote. For example, what do you understand differently? Would you now describe your experiences the same way? Include anything else that, on reflection, you see differently.

## Learning Objectives


At the end of this module, you will be able to:

- identify brain structures associated with memory.
- identify brain structures associated with motivation

## Module 5 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Greenfield</li> <li>• Pinel</li> <li>• Amabile</li> <li>• Churchland</li> <li>• Brain Zone: Creativity</li> <li>• Images 10, 11</li> </ul>	<ul style="list-style-type: none"> <li>• Read Greenfield, Ch. 5</li> <li>• Read Pinel, Ch. 10</li> <li>• Read Pinel, Ch. 11</li> <li>• Read Pinel, Ch. 12</li> <li>• Read Amabile, Ch. 1</li> <li>• Read Churchland, p. 278-286</li> <li>• Read Brain Zone: Creativity article</li> <li>• View images 10 &amp; 11</li> </ul>	<ul style="list-style-type: none"> <li>• Post “What’s new to you?” and respond to others</li> <li>• Post to your Final Project Conference</li> <li>• Post to the Then-Now-Next Conference</li> </ul>	<ul style="list-style-type: none"> <li>• Post answers to Pinel exercises p. 179: 1, 4, 7, 15, 18</li> <li>• Post answers to Pinel exercises p. 199: 1, 2, 4, 5, 7</li> </ul>



## Module 5 Learning Activities

Activity	Details
 Read	Read Greenfield, Ch. 5. <i>With Mind in Mind</i> Read Pinel, Ch. 10. <i>Brain Structures and Memory</i> Read Pinel, Ch. 11. <i>Motivational Systems of the Brain</i> Read Pinel, Ch. 12. <i>Cortical Localization of Language and Thinking</i> Read Amabile, Ch. 1. <i>The Case for a Social Psychology of Creativity</i> Read Churchland, pp. 278-286
—	Post to your Personal Conference answers to Pinel exercises p. 179: 1, 4, 7, 15, 18 and p. 199: 1, 2, 4, 5, 7
—	Post an introduction to your final project conference, describing your interest

## Module 5 Discussion

Conference	Topic
Final Project Conference	Continue to post to your Final Project Conference as you work with your group
Then-Now-Next Conference	Post your thoughts on the mind-brain connection, as described in the module introduction
What's new to you	Post your "What's new to you?" reflection and respond to others by the end of Week 6

## Module 5 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #9	Post answers to Pinel exercises p. 179: 1, 4, 7, 15, 18 to your personal conference	 End of Week 6	<input type="checkbox"/>
Assignment #10	Post answers to Pinel exercises p. 199: 1, 2, 4, 5, 7 your personal conference	 End of Week 6	<input type="checkbox"/>

## Module 5 Summary

By the end of Week 6 you should have:

- read Greenfield, Ch. 5. *With Mind in Mind*
- read Pinel, Ch. 10. *Brain Structures and Memory*
- read Pinel, Ch. 11. *Motivational Systems of the Brain*
- read Pinel, Ch. 12. *Cortical Localization of Language and Thinking*
- read Amabile, Ch. 1. *The Case for a Social Psychology of Creativity*
- read Churchland, pp. 278-286
- posted your "What's new to you" reflection and respond to others.
- posted answers to Pinel exercises p. 179: 1, 4, 7, 15, 18 and p. 199: 1, 2, 4, 5, 7
- continued posting to the appropriate Final Project Conference



## Module 6 – What is Creativity?

### Introduction and Overview

Module 6 readings focus on creativity and are kept to a minimum to allow you time to work on the collaborative Final Project and competence tasks. Even so, a key issue is addressed: what is creativity?

In Chapter 2, Amabile approaches the question from the perspective of formal definitions and how whatever “it” is can be effectively measured. Boden investigates whether creativity can be modeled. Finally, in Chapter 4 Amabile discusses how theorists address both models and functions. Instead of trying to understand every theory as you read Chapter 4, think about which make the most sense in terms of your competence tasks.

Before you start reading about common and newer definitions of creativity, jot down how *you* define it, compare your thoughts after reading the module material, and post your comparison to the Defining Creativity Conference. Does your definition change? Should it change?

### Learning Objectives


At the end of this module, you will be able to:

- explain how creativity is defined.
- describe how at least one brain disorder affects creative expression.

### Module 6 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Amabile</li> <li>• Boden</li> </ul>	<ul style="list-style-type: none"> <li>• Read Amabile, Chs. 2 &amp; 4</li> <li>• Read Boden article</li> </ul>	<ul style="list-style-type: none"> <li>• Post “What’s new to you?” and respond to others</li> <li>• Post to your Final Project Conference, as appropriate</li> <li>• Post to “Defining Creativity” and respond to others</li> </ul>	<ul style="list-style-type: none"> <li>• Post to your personal conference a summary of your team’s progress on the final project</li> <li>• Post to your personal conference your competence progress</li> </ul>


## Module 6 Learning Activities

Activity	Details
 <i>Read</i>	Amabile, Ch. 2. Meaning and Measurement of Creativity Amabile, Ch. 4. A Theoretical Framework Boden, Précis of "The Creative Mind: Myths and Mechanisms"
—	Post to your personal conference a summary of your team's progress on the final project
—	Post to your personal conference your competence task progress

## Module 6 Discussion

Conference	Topic
Final Project Conference	Continue to post to your Final Project Conference as you work with your group
Defining Creativity	Post your pre and post module definition of creativity and respond to others
What's new to you	Post your "What's new to you?" reflection and respond to others by the end of Week 7

## Module 6 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #11	Post a summary of your team's progress on the final project and your progress on your competence task(s)	 <i>End of Week 7</i>	<input type="checkbox"/>

## Module 6 Summary

By the end of Week 7 you should have

- read Amabile, Ch. 2. *Meaning and Measurement of Creativity*
- read Amabile, Ch. 4. *A Theoretical Framework*
- read Boden, Précis of "*The Creative Mind: Myths and Mechanisms*"
- posted your "What's new to you" reflection and respond to others.
- posted to "Defining Creativity" your pre and post module definition of creativity and respond to others



## Module 7 – Constraints and Influences

### Introduction and Overview

Module 7 focuses on factors that encourage and discourage creative expression. Can you believe that there are things we do every day—unthinking things—that stifle creativity in others and ourselves? There are, of course, environments that actively discourage creativity, but even the best managers, teachers, parents and leaders unknowingly do so. Amabile is a pioneer researcher in this area, and also a pragmatist. Much of her work addresses how to recognize and minimize constraints.

So, how was your creativity discouraged when you were younger? What about now? How do you find yourself imposing limits on the creativity of others around you? Conversely, how were and are you encouraged in expressions of creativity? How do you encourage others' creativity? Post your thoughts in "Daily Creativity" and respond to others.

In addition, in Module 7 work continues on your collaborative final projects and competence conference(s). If you opted for the S-2-A competence in this course, this is the week you post your mind-brain assignments to appropriate competence conference and the addendum paragraph to your "Creative Me" autobiography.

As discussed earlier, when you post the competence assignment, you are responsible for leading discussion about your assignment. Perhaps the best way to do that is for you to list, after your assignment, three to five questions or issues that either struck you as puzzling or that you don't agree with. These serve only as starting points. As your fellow learners add to the discussion, you are to read what they write and respond constructively. See the following discussion as an example:

Learner 1: I think everything sounds interesting, but why would the Greeks, who were supposed to be so intelligent, think that the mind was located in the heart!? Couldn't they tell that blood came from the heart?

Learner 2: I read once that Greek physicians were the first to dissect human bodies, so you'd think that they would know that.

What bugs me is why all those religious people were offended when scientists said that the mind was part of the brain. I know why they were annoyed, but at some point don't you think that even priests would recognize that they don't know everything?

Leader: Remember, the fact that the heart pulsed is what made even the Greeks think that the mind must be located there, because other organs didn't do anything visible. And yes, religious leaders objected, but some still do, so we need to keep that in perspective.

Learner 2: Doesn't the stomach pulse?

Learner 3: The inside of the stomach pulses—it's called peristalsis—but not the outside, where someone could see it.

Your instructor will also be logged in to help steer the conversation, but primary responsibility for leading and monitoring the discussion rests with you.

## Learning Objectives



At the end of this module, you will be able to:

- discuss the mind-brain relationship.
- describe how at least one brain disorder affects creative expression.

## Module 7 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Amabile</li> </ul>	<ul style="list-style-type: none"> <li>• Read Amabile, Chs. 5 &amp; 6</li> </ul>	<ul style="list-style-type: none"> <li>• Post "What's new to you?" and respond to others</li> <li>• Post to your Final Project Conference, as appropriate</li> <li>•</li> <li>• Non-S-2-A learners post to S-2-A discussions</li> <li>• Post to "Daily Creativity" and respond to others</li> </ul>	<ul style="list-style-type: none"> <li>• S-2-A learners post presentations and lead class discussion</li> <li>• S-2-A learners post addendum paragraphs to their "Creative Me" autobiography</li> <li>• Email your final project draft to the facilitator</li> </ul>

## Module 7 Learning Activities



Activity	Details
 <i>Read</i>	Read Amabile, Ch. 5. Effects of Evaluation on Creativity Read Amabile, Ch. 6. Effects of Reward and Task Constraint
	Email your draft final project to the instructor


Activity	Details
—	S-2-A learners post presentations and lead class discussion Non-S-2-A learners post to S-2-A discussions
—	S-2-A learners post addendum paragraphs to their “Creative Me” autobiography

## Module 7 Discussion

Conference	Topic
Final Project Conference	Continue to post to your Final Project Conference as you work with your group
Daily Creativity	Post your thoughts, as described in the module introduction, and respond to others
What’s new to you	Post your “What’s new to you?” reflection and respond to others by the end of Week 8
Mind-Brain Conference	S-2-A learners post presentations and lead class discussion

## Module 7 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #12-1	S-2-A learners post presentations to Mind-Brain Conference and lead class discussion	 End of Week 8	<input type="checkbox"/>
Assignment #13-1	S-2-A learners post addendum paragraphs to their “Creative Me” autobiography	 End of Week 8	<input type="checkbox"/>

Assignment	Topic	Due Date	Completed
Assignment #14	Email final project draft to the instructor	 End of Week 8	<input type="checkbox"/>

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## Module 7 Summary

By the end of Week 8 you should have

- read Amabile, Ch. 5. *Effects of Evaluation on Creativity*
- read Amabile, Ch. 6. *Effects of Reward and Task Constraint*
- posted your “What’s new to you” reflection and respond to others.
- posted to your Final Project Conference, as appropriate
- and:
  - if an S-2-A learner, post presentations and lead class discussion, AND post addendum paragraphs to your “Creative Me” autobiography
  - if not an S-2-A learner, post to S-2-A discussions



## Module 8 – Society and Creativity

### Introduction and Overview

Module 8 continues our focus on factors that encourage and discourage creative expression, and continues competence presentations.

If you opted for the H-3-X competence in this course, this is the week you post your culture-based assignments to the appropriate competence conference and the addendum paragraph to your “Creative Me” autobiography.

### Learning Objectives


At the end of this module, you will be able to:

- discuss how culture affects creative expression.
- describe how at least one brain disorder affects creative expression.

### Module 8 Plan

Learning Resources	Learning Activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Amabile</li> <li>• Schwab</li> </ul>	<ul style="list-style-type: none"> <li>• Read Amabile, Chs. 7&amp; 8</li> <li>• Read Schwab article</li> </ul>	<ul style="list-style-type: none"> <li>• Post “What’s new to you?” and respond to others</li> <li>• Post to your Final Project Conference, as appropriate</li> <li>• Non- H-3-X learners post to H-3-X discussions</li> </ul>	<ul style="list-style-type: none"> <li>• H-3-X learners post presentations and lead class discussion</li> <li>• H-3-X learners post addendum paragraphs to their “Creative Me” autobiography</li> </ul>

### Module 8 Learning Activities



Activity	Details
 <i>Read</i>	Read Amabile, Ch. 7. Social Facilitation, Modeling, and Motivational Orientation  Read Amabile, Ch. 8. Other Social and Environmental Influences  Read Schwab, Creative Thought

Activity	Details
—	H-3-X learners post presentations and lead class discussion Non-H-3-X learners post to H-3-X discussions

## Module 8 Discussion

Conference	Topic
Final Project Conference	Continue to post to your Final Project Conference as you work with your group
What's new to you	Post your "What's new to you?" reflection and respond to others by the end of Week 9
Culture Conference	H-3-X learners post presentations and lead class discussion  Non-H-3-X learners post to H-3-X discussions

## Module 8 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #12-2	H-3-X learners post presentations to Culture Conference and lead class discussion	 Monday Week 9	<input type="checkbox"/>
Assignment #13-2	H-3-X learners post addendum paragraphs to their "Creative Me" autobiography	 Monday Week 9	<input type="checkbox"/>

## Module 8 Summary

By the end of Week 9 you should have:

- read Amabile, Ch. 7. *Social Facilitation, Modeling, and Motivational Orientation*
- read Amabile, Ch. 8. *Other Social and Environmental Influences*

- read Schwab, *Creative Thought*
- posted to the WebBoard your “What’s new to you?” reflection and respond to others
- posted to your Final Project Conference, as appropriate
- and:
  - if an H-3-X learner, post presentations and lead class discussion, AND post addendum paragraphs to your “Creative Me” autobiography
  - if not an H-3-X learner, post to H-3-X discussions



## Module 9 – Enhancing Creativity

### Introduction and Overview

We finish up with Module 9, which continues and summarizes discussion of enhancing creative expression, and continues competence presentations.

If you opted for the A-3-G or A-5 competence in this course, this is the week you post your culture-based assignments to the appropriate competence conference and the addendum paragraph to your “Creative Me” autobiography.

### Learning Objectives


At the end of this module, you will be able to:


- discuss comparisons and contrasts between creativity theories.
- discuss creative outputs from the perspective of creativity theory and tradition.
- describe how at least one brain disorder affects creative expression.

### Module 9 Plan

Learning Resources	Learning activities	Interaction and Discussion	Assignments
<ul style="list-style-type: none"> <li>• Amabile</li> </ul>	<ul style="list-style-type: none"> <li>• Read Amabile, Ch. 9</li> </ul>	<ul style="list-style-type: none"> <li>• Non-A-3-G learners post to A-3-G discussions</li> <li>• Non-A-5 learners post to A-5 discussions</li> </ul>	<ul style="list-style-type: none"> <li>• A-3-G and A-5 learners post presentations and lead class discussion</li> <li>• A-3-G and A-5 learners post addendum paragraphs to their “Creative Me” autobiography</li> <li>• Email your final project to the instructor</li> <li>• Email your group assessment to the instructor</li> </ul>

### Module 9 Learning Activities





Activity	Details
 Read	Amabile, Ch. 9. <i>Implications for Enhancing Creativity</i>



Activity	Details
	Email your final project to the instructor
	Email your group assessment to the instructor

## Module 9 Discussion

Conference	Topic
Creative Theory	Non-A-3-G learners post to A-3-G discussions
Creative Output	Non-A-5 learners post to A-5 discussions

## Module 9 Assignment Checklist

Assignment	Topic	Due Date	Completed
Assignment #12-3	A-3-G learners post presentations to Creative Theory Conference and lead class discussion	 Tuesday Week 10	<input type="checkbox"/>
Assignment #13-3	A-3-G learners post addendum paragraphs to their "Creative Me" autobiography	 Tuesday Week 10	<input type="checkbox"/>
Assignment #12-4	A-5 learners post presentations to Creative Output Conference and lead class discussion	 Tuesday Week 10	<input type="checkbox"/>
Assignment #13-4	A-5 learners post addendum paragraphs to their "Creative Me" autobiography	 Tuesday Week 10	<input type="checkbox"/>

Assignment	Topic	Due Date	Completed
Assignment #15	Email your final project to the instructor	 Week 10	<input type="checkbox"/>
Assignment #16	Email your group assessment forms to the instructor	 Week 10	<input type="checkbox"/>

## Module 9 Summary

By the end of Week 10 you should have:

- read Amabile, Ch. 9. *Implications for Enhancing Creativity*
- emailed your final project to the instructor
- emailed your group assessment to the instructor
- and:
  - if an A-3-G learner, post presentations to the Creative Theory Conference and lead class discussion, AND post addendum paragraphs to your “Creative Me” autobiography
  - if an A-5 learner, post presentations to the Creative Output Conference and lead class discussion, AND post addendum paragraphs to your “Creative Me” autobiography
  - if not an A-3-G learner, post to A-3-G discussions
  - if not an A-5 learner, post to A-5 discussions

