

MEMORANDUM TO: Ogden College of Science and Engineering Curriculum Committee

Dr. Melanie Autin
Dr. Nahid Gani
Dr. Scott Grubbs
Ting-Hui Lee

Dr. Andy Mienaltowski
Dr. Les Pesterfield
Dr. Todd Willian
Dr. Bangbo Yan
Dr. Rong Yang

FROM: Dr. Stuart Burris, Chair

SUBJECT: Agenda for Thursday, October 3, 2024

A. OLD BUSINESS:

- I. Consideration of the minutes of the April 2024 meeting.

B. NEW BUSINESS:

Type of item	Description of Item & Contact Information
Informational	<u>The following items were sent through the expedited process:</u> CIT 302, 310, 330, 350, 370 (internal pre-req change) MFGE 120, 205 (internal pre-req change) SEAS 101 (grade type change)
Action	Proposal to Create a New Course PSYS 346: The Psychology of Facing Death and Dying Contact: Gordon.baylis@wku.edu , 2707924225
Action	Proposal to Create a New Course PSYS 352: Health Psychology: The Mind-Body Connection Contact: Aaron.wichman@wku.edu , x2443
Action	Proposal to Revise a Program Ref. 5013, Neuroscience Contact: Stuart Burris, stuart.burris@wku.edu , x2973
Action	Proposal to Revise a Course ME 347: Mechanical Systems Laboratory Contact: Kevin Schmaltz, kevin.schmlatz@wku.edu , x8859
Action	Proposal to Revise a Program Ref. 543P, 543: Mechanical Engineering Contact: Kevin Schmaltz, kevin.schmlatz@wku.edu , x8859

C. OTHER BUSINESS

Minutes – OCSE Curriculum Committee

April 2024

Members Present: Email Meeting

FROM: Dr. Stuart Burris, Chair

The meeting was held via email.

OLD BUSINESS:

n/a

NEW BUSINESS:

Action Agenda:

The Program to Revise a Program, Ref. 528: Mathematics was approved.

Other Business:

n/a

Course Change Request

New Course Proposal

Date Submitted: 09/13/24 4:30 pm

Viewing: **PSYS 346 : The Psychology of Facing Death and Dying**

Last revision: 09/13/24 4:30 pm

Changes proposed by: and30774

In Workflow

1. **PSYS Approval**
2. **SC Dean**
3. SC Curriculum Committee
4. Colonnade Committee
5. Undergraduate Curriculum Committee
6. University Senate
7. Provost
8. Course Inventory

Proposed Action

Approval Path

1. 09/20/24 6:54 pm
Matthew Shake
(matthew.shake):
Approved for PSYS
Approval

Active

Contact(s)

Name	E-mail	Phone
Gordon C Baylis	gordon.baylis@wku.edu	2707924225

Term for implementation Summer 2025

Academic Level Undergraduate

Course prefix (subject area) PSYS - Psychological Sciences Course number 346

Department Psychological Sciences

College Science and Engineering

Course title
The Psychology of Facing Death and Dying

Abbreviated course title PSYCHOLOGY OF Death and Dying

Course description

A course that examines the psychological aspects of how people deal with death and dying, including psychological theories on experiencing death, the role of culture and social connections in the process, the evolution of our understanding of death across the lifespan, and the personal impact of societal systems for managing the outcomes of death.

Credit hours 3

Repeatable

No

Default grade type Standard Letter Alternate grade type(s)

Is this course intended to span more than one term?

No

Schedule type

Lecture/Lab

CIP Code 429999 - Psychology, Other.

Does this course have prerequisites

No

Corequisites

Equivalent Courses

Restrictions:

College restriction? No

Field of study
restriction/major? No

Classification
restriction? No

Departmental
Restrictions

none

Reason for
developing the
proposed course

This is an important developmental transition in everyone's life and merits discussion with students pursuing psychological training and training in professions involving administering social services. Many professions - e.g., healthcare, funeral services - will have to talk to people who are facing death. The course discusses the science and theory underlying psychological concerns with death, dying, and bereavement as well as about the

intersecting roles of individual health, culture, societal norms, and law. This is highly relevant to mental health practitioners who will have to counsel those facing their own death, or the death of family and friends.

Is this related to
other courses at
WKU?

No

What departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

History

Nursing

Folklife / Anthropology

How many sections
of this course per
academic year will
be offered?

1

How many students
per section are
expected to enroll in
this proposed
course?

40

How many students
per academic year
are expected to
enroll?

40

How were these
projections
calculated? Explain
any supporting
evidence/data you
have for arriving at
these projections:

Based on conversations I have had, I expect that many students will want to enroll, but I am initially only open to offering one section. Once the course has been offered a couple times, I will explore whether it can scale to larger, or more, sections

Is this course part of
a program that leads
to teacher
certificate? No

Are you seeking
Colonnade approval
for this course? Yes

Colonnade
Programs Connections

Connections:
Course Categories Social & Cultural

Colonnade Proposal [PSYS346 Colonnade.docx](#)

Syllabus [PSYS346 Syllabus.docx](#)

Colonnade Learning Outcomes

#	Colonnade Learning Outcomes
CLO 1	Examine diverse values that form civically-engaged informed members of society
CLO 2	Analyze the development of self in relation to others in society.
CLO 3	Evaluate solutions to real-world socio-cultural problems.

Student Learning Outcomes

#	Student Learning Outcomes
1	To be able to talk about death with confidence and compassion. Members of many professions will have to talk about death, but are frequently ill-equipped. KC-1
2	To understand the many different approaches used by different cultures, and religions, to cope with, and manage death. CLO-1, KC-4
3	Understand how death shapes development of oneself and others. CLO-2, KC-6
4	Understand that death is a major (possibly the ultimate) socio-cultural problem, and that numerous approaches to attempting to solve this problem have been adopted by different societies. CLO-3, KC-7

Content outline

#	Topic
1	Attitudes toward experiences with death

#	Topic
2	Culture's role in shaping death of individuals
3	Coping with one's own death
4	Bereavement of the death of others
5	Our understanding and experience of death across the lifespan, from childhood to old age
6	Systemic societal structures shaping one's experience of death, including legal concerns
7	The influence of physical and mental health on death as a choice
8	Systemic societal structures shaping one's experience of death, including legal concerns
9	The influence of physical and mental health on death as a choice
10	Theories on personal meaningfulness and dignity at the end of life

Student expectations and requirements

Students will be expected to

1. Present an approach - these may be in pairs that are counterpoint
2. Lead a discussion
3. Take part in respectful discussions
4. take multiple choice exams
5. Write a Final Paper with short essay questions

Tentative texts and course materials

Death and Dying, Life and Living (9th ed) by Charles A. Corr et al.

Special equipment, materials, or library resources needed
none

Additional information

Daniel Defoe (1726) "The Political History of the Devil" London. Black Boy in Paternoster Row.

Supporting documentation

Reviewer Comments

Course Change Request

New Course Proposal

Date Submitted: 09/13/24 4:30 pm

Viewing: **PSYS 352 : Health Psychology:
The Mind-Body Connection**

Last revision: 09/27/24 4:43 pm

Changes proposed by: and30774

In Workflow

1. **PSYS Approval**
2. **SC Dean**
3. SC Curriculum Committee
4. Colonnade Committee
5. Undergraduate Curriculum Committee
6. University Senate
7. Provost
8. Course Inventory

Proposed Action

Approval Path

1. 09/20/24 6:54 pm
Matthew Shake
(matthew.shake):
Approved for PSYS
Approval

Active

Contact(s)

Name	E-mail	Phone
Aaron Wichman	aaron.wichman@wku.edu	270-745-2443

Term for implementation Spring 2025

Academic Level Undergraduate

Course prefix (subject area) PSYS - Psychological Sciences Course number 352

Department Psychological Sciences

College Science and Engineering

Course title Health Psychology: The Mind-Body Connection

Abbreviated course title HEALTH PSYCHOLOGY

Course description

Explores biopsychosocial factors in health and illness. Examines stress, emotion regulation, health behavior adoption and maintenance, psychology of chronic disease, and mental health. Develops critical thinking skills for understanding the role of mental processes influencing health and well-being.

Credit hours 3

Repeatable

No

Default grade type Standard Letter Alternate grade type(s)

Is this course intended to span more than one term?

No

Schedule type

Lecture

CIP Code 422810 - Health/Medical Psychology.

Does this course have prerequisites

Yes

Prerequisites

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
		CONE	Y			No
And	(	PSYS 100	C	UG		No
Or		PSYS 160	C	UG		No
Or		PSYS 220	C	UG		No
Or		PH 100	C	UG		No
Or		ENV 120	C	UG		No
Or		HCA 120	C	UG		No
Or		NURS 102	C	UG		No
Or		SWRK 101	C	UG	)	No

Corequisites

Equivalent Courses

Restrictions:



College restriction? No

Field of study
restriction/major? No

Classification
restriction? No

Departmental
Restrictions

Reason for
developing the
proposed course

Health Psychology courses are available in most psychology departments, but not at WKU. The most recent tabulation of health psychology course offerings finds that approximately 70% (in 2014, up from less than 26% in 1996) of psychology departments offer this course. Given the interest of many students in health careers, and given that many students generally are interested in the relationships between biology, neuroscience, and social psychological influences on health and the relationships between mental and physical health and function, this course is a valuable addition to our existing catalog.

This course appeals to both basic interest in psychology and health and the needs of aspiring health professionals to learn more about human behavior and its implications for health. Further, the level of student interest in health careers, combined with the existing student engagement with neuroscience, chemistry and biology service courses to prepare for these careers, makes this health psychology course long overdue. This course is anchored around a biopsychosocial approach to health that is the current best model for understanding the causes and processes of the chronic diseases that are the primary causes of disability and death in technologically advanced societies.

Norcross, J. C., Hailstorks, R., Aiken, L. S., Pfund, R. A., Stamm, K. E., & Christidis, P. (2016). Undergraduate study in psychology: Curriculum and assessment. *American Psychologist*, 71(2), 89–101.
<https://doi.org/10.1037/a0040095>

Is this related to
other courses at
WKU?

Yes

Related courses

ANTH 382 - Medical Anthropology
HCA 120 - Health Literacy for Consumers
PH 100 - Personal & Public Health
PH 165 - Drug Abuse
PH 412 - Health Disparities and Health Equity
PH 390 - Wellness and Fitness Assessment
SOCL 440 - Sociology of Health and Illness

What departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

Health Care Administration: Nadia Houchens; 4/30/2024: Supports course proposal

Public Health: Grace Lartey, 4/30/2024: Supports course proposal

Nursing: Liz Sturgeon & Kimberly Pharris; 5/13/24: Supports course proposal.

Sociology: 5/17/2024; Amy Krull & Holli Drummond: Supports course proposal.

How many sections
of this course per
academic year will
be offered?

1

How many students
per section are
expected to enroll in
this proposed
course?

35

How many students
per academic year
are expected to
enroll?

35

How were these
projections
calculated? Explain
any supporting
evidence/data you
have for arriving at
these projections:

These estimates are based on verbal querying of students.

How are these
related?

ANTH 382 is related in that attitudes toward illness are examined in different cultures; the proposed course does include attitudes toward illness, but as part of the biopsychosocial model with the individual in Western culture at its core.

HCA 120 is related in that it has to do with health care information accessibility, but the proposed course focuses more on the underlying psychology of health and healthcare utilization.

PH100: While some of the topics/content are similar, the complexity of the coverage the proposed course will offer is beyond what this level course would do, and the proposed course does not address important topics that PH100 does: for instance disease etiology and management,

PH165: Drug abuse is not an integral part of the proposed course coverage. The proposed course will discuss drug abuse, for instance in the context of different coping behaviors, but this proposed course will not present the

level of coverage that PH 165 does.

PH412: The proposed course is much more at the individual level of analysis and does not approach these topics from a sociological perspective. The perspective is much more that of the individual.

PH 390: This proposed course will cover some health behaviors, but not with a major focus on individual assessment.

SOCL 440: This proposed course will focus much more on individual level psychological factors and does not approach the level of analysis of a sociology course.

NURS 337: This proposed course is an examination of psychological factors that directly influence behavior which is a good foundation for understanding the nursing strategies needed for promoting health.to the population.

Is this course part of a program that leads to teacher certificate? No

Are you seeking Colonnade approval for this course? Yes

Colonnade Programs Connections

Connections: Course Categories Systems

Colonnade Proposal [Wichman_connections-systems-proposal-form\(1\).docx](#)

Syllabus [PSYS 352_Health PsychologySampleSyllabusWichman.docx](#)

Colonnade Learning Outcomes

#	Colonnade Learning Outcomes
1	Analyze how systems evolve.
2	Compare the study of individual components to the analysis of entire systems.
3	Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

Student Learning Outcomes

#	Student Learning Outcomes
1	Critically analyze the biopsychosocial model of health and illness
2	Explain the impact of stress, coping mechanisms, and emotion regulation on physical and mental health
3	Evaluate the psychological factors influencing health behaviors

#	Student Learning Outcomes
4	Identify and critically examine major psychological interventions for promoting health and managing illness
5	Develop critical thinking and research skills in the context of health psychology

Content outline

#	Topic
1	Introduction to Health Psychology History, Biopsychosocial Model of Health, Research Methods
2	Stress and Coping Psychology of Stress, Stress Physiology, Immunological and Health Consequences
3	Health Behavior Change Behavior Change Models, Intervention Strategies, Goal Setting, and Health Decision Making, Substance Use and Addiction
4	Chronic Illness Psychological impacts, Specific Disease Consequences, Psychosocial Interventions (e.g. Stress management, Cognitive Behavioral Therapy)
5	Mental Health and Well-being Illness mitigation vs. Health Promotion and Positive Psychology, Mental Health Education, Suicide Prevention

Student expectations and requirements

Three MC exams

Final Paper Health Psychology Research Project: Possible topics:

Develop a personalized plan for improving your own health or well-being based on the principles of health psychology you have learned.

Analyze a media representation of a health-related issue (e.g., movie, documentary, news article) and critique its portrayal from a psychological perspective.

Analyze the effectiveness of a specific psychological intervention for a health-related issue and consider potential limitations. (e.g., mindfulness for anxiety, exercise for depression, group therapy for chronic pain)

Compare and contrast two major theories of health behavior change and apply them to a specific behavior (e.g., smoking cessation, dietary change).

Course participation: measured through in-class assignments and contributions.

Tentative texts and course materials

Marks, D. F., Murray, M., & Estacio E. V. (2020) Health Psychology: Theory, Research and Practice (6th Ed). Sage.

Special equipment, materials, or library

resources needed

n/a

Additional
information

Supporting
documentation

[PSYS 352_Health PsychologySampleSyllabusWichman.docx](#)

Reviewer Comments

Program Change Request

Date Submitted: 08/20/24 3:59 pm

Viewing: **5013 : Neuroscience**

Last approved: 07/24/24 8:36 am

Last edit: 08/20/24 3:59 pm

Changes proposed by: str18637

Catalog Pages

Using this Program

[Neuroscience, Bachelor of Science \(5013\) - Now admitting for Fall 2025](#)

Proposed Action

Active

Contact Person

Name	Email	Phone
Stuart Burris	stuart.burris@wku.edu	2707452973

Term of Implementation 2025-2026

Program Reference Number 5013

Review Type Full Review

Academic Level Undergraduate

Program Type Major

Degree Types Bachelor of Science

In Workflow

1. **99SC Approval**
2. **SC Dean**
3. SC Curriculum Committee
4. Undergraduate Curriculum Committee
5. University Senate
6. Provost
7. Program Inventory

Approval Path

1. 08/20/24 4:00 pm
Stuart Burris
(stuart.burris):
Approved for 99SC Approval

History

1. Jul 24, 2024 by
Stuart Burris
(stuart.burris)

Department OCSE Interdisciplinary Programs

College Science and Engineering

Program Name (eg. Biology) Neuroscience

Will this program have concentrations?
Yes

Concentrations
Systems (NSYS)
Behavioral (NBEH)
Computational (NCOM)

CIP Code 26.1501 - Neuroscience.

Will this program lead to teacher certification?
No

Does the proposed program contain 25% or more new content not previously taught in another course at WKU? If yes, contact the Office of the Provost for additional SACSCOC proposal requirements

No

Catalog Content

Program Overview (Catalog field: Overview tab)

The subject of neuroscience - the science of nervous system and brain structure and function - is a rapidly-growing science that has become established within many different scientific disciplines. The Neuroscience Major begins with a rigorous core of basic science classes and laboratories, moving on to a core of more advanced classes. All students are educated in the breadth of the subject, but will eventually choose one of three concentrations – systems, behavioral, or computational.

These three concentrations represent natural pipelines to a variety of careers and postgraduate degree options. The Systems concentration can lead to options such as in-depth graduate study in neuroscience or clinical psychopharmacology or a career in the pharmaceutical industry. The Systems concentration may also be supplemented with additional coursework as a pre-health professions option leading to a medical school application. Students in the Behavioral concentration can progress to graduate study in cognitive neuroscience or psychiatry. Those in the Computational concentration could find career options such as artificial intelligence, medical data analytics, healthcare analytics, prosthetics, or robotics. As a strong natural science degree with a large “hands-on” component, the Neuroscience Major educates students to be lifelong innovators and problem-solvers.

Curriculum Requirements (Catalog field: Program Requirements)

Program Requirements (64-70 Hours)

The Neuroscience Major begins with a rigorous core of basic science classes and laboratories, moving on to a core of more advanced classes. All students are educated in the breadth of the subject, but will eventually choose one of three

concentrations - systems, behavioral, or computational.

Core Courses

BIOL 120 & BIOL 121	Biological Concepts: Cells Metabolism and Genetics and Biological Concepts: Cells, Metabolism, and Genetics Lab	4
Take 3 of these 4		11-13
BIOL 122 & BIOL 123	Biological Concepts: Evolution, Diversity, and Ecology and Biological Concepts: Evolution, Diversity, and Ecology Lab	
CHEM 120 & CHEM 121	College Chemistry I and College Chemistry I Laboratory	
PSYS 160 & PSYS 161	Introduction to Biopsychology and Introduction to Biopsychology Laboratory	
CS 170 or PSYS 415	Problem Solving and Programming Programming for Social Sciences	
MATH 183 or BIOL 382 or PSYS 313	Introductory Statistics Introductory Biostatistics Statistics in Psychology	3
PSYS 210 & PSYS 211	Research Methods in Psychology and Research Methods in Psychology Laboratory	4
PSYS 300	Writing in the Psychological Sciences	3
NEUR 175	Neuroscience Seminar 1	1
NEUR 300	Course NEUR 300 Not Found	3
NEUR 310	Research Techniques of Neuroscience	3
NEUR 401	Cellular and Molecular Neuroscience	3
NEUR 402	Systems Neuroscience	3
NEUR 498	Neuroscience Seminar 2	2
BIOL 399 or CHEM 399 or PSYS 490	Research Problems in Biology Research Problems in Chemistry Independent Study in Psychological Sciences	1
Total Hours		38-40

Systems Concentration (67-70 hours)

Core Courses		38-40
BIOL 224 & BIOL 225	Animal Biology and Diversity and Animal Biology and Diversity Lab	4
BIOL 319	Introduction to Molecular and Cell Biology	3

<u>BIOL 330</u>	Animal Physiology	3
<u>BIOL 464</u>	Endocrinology	3
<u>CHEM 222</u> & <u>CHEM 223</u>	College Chemistry II and College Chemistry II Laboratory	5
<u>CHEM 340</u> & <u>CHEM 341</u>	Organic Chemistry I and Organic Chemistry Laboratory I	5
<u>PSYS 360</u> & <u>PSYS 365</u>	Behavioral Neuroscience and Laboratory in Behavioral Neuroscience	3-4
or <u>BIOL 335</u>	Neurobiology	
<u>PSYS 465</u>	Psychopharmacology	3
Total Hours		67-70

Behavioral Concentration (64-66 hours)

Core Courses		38-40
<u>BIOL 224</u> & <u>BIOL 225</u>	Animal Biology and Diversity and Animal Biology and Diversity Lab	4
<u>PSYS 331</u> or <u>BIOL 334</u>	Principles of Human and Animal Learning Animal Behavior	3
<u>PSYS 333</u>	Cognitive Psychology	3
<u>PSYS 360</u> & <u>PSYS 365</u>	Behavioral Neuroscience and Laboratory in Behavioral Neuroscience	4
<u>PSYS 363</u>	Sensory and Perceptual Systems	3
<u>PSYS 440</u>	Abnormal Psychology	3
<u>PSYS 462</u>	Fundamentals of Cognitive Neuroscience	3
<u>PSYS 465</u>	Psychopharmacology	3
Total Hours		64-66

Computational Concentration (64-66 hours)

Core Courses		38-40
<u>CS 180</u>	Computer Science I	4
<u>CS 290</u>	Computer Science II	4
<u>CS 331</u>	Data Structures	3
<u>CS 339</u>	Discrete Structures	3
<u>CS 456</u>	Artificial Intelligence	3

MATH 307	Introduction to Linear Algebra	3
PSYS 360	Behavioral Neuroscience	3
or BIOL 335	Neurobiology	
PSYS 333	Cognitive Psychology	3
Total Hours		64-66

Required Support Course for Computational Concentration (4 hours)

MATH 136	Calculus I	4
Total Hours		4

4-Year Plan

Systems Concentration

First Year

Fall	Hours	Spring	Hours
BIOL 120	3	BIOL 122	3
BIOL 121	1	BIOL 123	1
ENG 100	3	CHEM 120	3
MATH 116	3	CHEM 121	2
NEUR 175	1	COMM 145	3
PSYS 160	3	Colonnade F-SB	3
PSYS 161	1		
	15		15

Second Year

Fall	Hours	Spring	Hours
MATH 183	3	ENG 200	3
CHEM 222	3	NEUR 310	3
CHEM 223	2	BIOL 224	3
PSYS 210	3	BIOL 225	1
PSYS 211	1	BIOL 319	3
Colonnade E-AH	3	Colonnade E-SB	3
	15		16

Third Year

Fall	Hours	Spring	Hours
BIOL 330	3	NEUR 300	3
CHEM 340	3	NEUR 402	3
CHEM 341	2	PSYS 300	<u>3</u>
NEUR 401	3	Colonnade K-SY	3
NEUR 498	1	Elective	3
Colonnade K-LG	3	Elective	3

First Year		
Fall	HoursSpring	Hours
	15	15
Fourth Year		
Fall	HoursSpring	Hours
BIOL 335	3 Independent Study	1
BIOL 464	3 Elective	3
NEUR 498	1 Elective	3
PSYS 465	3 Elective	3
Colonnade K-SC	3 Elective	3
Elective	3	
	16	13
Total Hours 120		

Behavioral Concentration

First Year		
Fall	HoursSpring	Hours
BIOL 120	3 BIOL 122	3
BIOL 121	1 BIOL 123	1
ENG 100	3 CHEM 120	3
MATH 116	3 CHEM 121	2
NEUR 175	1 PSYS 100	3
PSYS 160	3 Colonnade F-SB	3
PSYS 161	1	
	15	15
Second Year		
Fall	HoursSpring	Hours
BIOL 224	3 COMM 145	3
BIOL 225	1 NEUR 310	3
ENG 200	3 PSYS 313	3
PSYS 210	3 PSYS 333	3
PSYS 211	1 Colonnade E-SB	3
Colonnade E-AH	3	
	14	15
Third Year		
Fall	HoursSpring	Hours
NEUR 401	3 NEUR 300	3
NEUR 498	1 NEUR 402	3
PSYS 331	3 PSYS 300	<u>3</u>
PSYS 440	3 PSYS 363	3
Colonnade K-LG	3 Colonnade K-SY	3
Elective	3 Elective	3
	16	15
Fourth Year		
Fall	HoursSpring	Hours
NEUR 498	1 Independent Study	1

First Year

Fall	Hours	Spring	Hours
PSYS 360	3	PSYS 462	3
PSYS 365	1	Elective	3
PSYS 465	3	Elective	3
Colonnade K-SC	3	Elective	3
Elective	3	Elective	3
	14		16

Total Hours 120

Computational Concentration

First Year

Fall	Hours	Spring	Hours
BIOL 120	3	BIOL 122	3
BIOL 121	1	BIOL 123	1
ENG 100	3	COMM 145	3
MATH 116	3	MATH 117	3
PSYS 160	3	Colonnade F-SB	3
PSYS 161	1		
NEUR 175	1		
	15		13

Second Year

Fall	Hours	Spring	Hours
CS 180	4	CS 290	4
MATH 136	4	ENG 200	3
PSYS 210	3	MATH 307	3
PSYS 211	1	NEUR 310	3
Colonnade E-AH	3	PSYS 313	3
		PSYS 415	3
	15		19

Third Year

Fall	Hours	Spring	Hours
CS 331	3	CS 339	3
NEUR 401	3	NEUR 300	3
NEUR 498	1	NEUR 402	3
PSYS 360	3	PSYS 300	<u>3</u>
Colonnade K-LG	3	Colonnade E-SB	3
Elective	3	Colonnade K-SY	3
	16		15

Fourth Year

Fall	Hours	Spring	Hours
NEUR 498	1	Independent Study	1
CS 456	3	PSYS 333	3
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3

First Year

Fall	Hours	Spring	Hours
Elective	3	Elective	1
	16		14

Total Hours 123

Will this program be managed or owned by more than one department?

Yes

Interdisciplinary
Departments

Secondary Departments
Biology (BIOL)
Chemistry (CHEM)
Computer Science (CS)
Psychological Sciences (PSYS)

Does this program include courses from outside your department?

Yes

Outside Courses
Details

Who approved including these courses?	When were they approved?
Co-chairs of PSY Dept	8/28/2023
Math	9/13/2023

Please insert one Learning Outcome per box. Click green plus sign for additional LO boxes

Learning Outcomes
and Measurement
Plan

	List all student learning outcomes of the program.	Measurement Plan
SLO 1	Develop a working knowledge of the main content domains in neuroscience.	Assess student learning within neuroscience foundation, including content connected to cellular and molecular biology, behavioral neuroscience, neuroscience techniques and research methods, and neurological systems. Student performance on objective items will be assessed.
SLO 2	Explain the scientific method of discovery, based on testing hypotheses by collecting and analyzing data in appropriately-designed experiments.	Each academic year, a representative sample of the exam questions in PSYS 210, and NEUR 310 will be used to examine the extent to which students embrace the scientific method.

	List all student learning outcomes of the program.	Measurement Plan
SLO 3	Propose, design, and run experiments, and analyze the data from these experiments.	This will first be tested at an elementary level by examining a random sample of student lab reports from the multiple introductory level lab classes that all students take. At an intermediate level this will be assessed by examining the reports of a sample of students in the methods (PSYS 210) and statistics classes. At the most advanced level this will be assessed by a sample of the work output from independent study classes.
SLO 4	Communicate the scientific method, and be able to explain scientific findings to experts and to lay audiences.	This will be assessed by examining a sample of student work in <u>PSYS NEUR 300 - Writing in Psychological Science. Neuroscience.</u> It will also be assessed more informally - but more rigorously - by assessing the presentations of work given by students in NEUR 498.
SLO 5	Embrace problem-solving, and truly own a problem such that they can solve problems.	This will first be tested at an elementary level by examining a random sample of student lab reports from the multiple introductory level lab classes that all students take. At an intermediate level this will be assessed by examining the reports of a sample of students in the methods (PSYS210) and statistics classes. At the most advanced level this will be assessed by a sample of the work output from independent study classes and work presented in NEUR 498.

Assessment Template: https://www.wku.edu/academicaffairs/ee/assurance_learning_resources.php

Upload Assessment Plan [Neuro-new_program_asl_template.docx](#)

Delivery Mode

Is 25% or more of this program offered at a location other than main campus?

No

Enter Location(s)
and Percentage of
Program Offered at
Location(s)

Location	Percentage
Bowling Green	100
<p>Is 50% or more of this program offered by distance education (online asynchronous, online synchronous, connected classrooms, etc.)? No</p> <p>Do you plan to offer 100% of this program online? No</p> <p>If no, enter the percentage of the program that will be taught online. 0</p> <p>Do you plan to offer 100% of this program face-to-face? Yes</p> <p>Do you plan to offer at least 25% of this program as a direct assessment competency-based educational program? No</p> <p><i>See the SACSCOC Policy on Direct Assessment Competency-based Educational Programs.</i> https://www.sacscoc.org/pdf/081705/DirectAssessmentCompetencyBased.pdf</p>	

Library Resources

Attach library resources [Neuro Library Resources.docx](#)

Rationale for the program proposal?

We were not allowed to create a new Colonnade writing in the disciplines course (NEUR 300) as originally planned, so we are utilizing an existing one (PSYS 300) instead.

Additional Attachments [WКУ Neuroscience cpe-notification-of-intent-program-summary.pdf](#)

Additional information or attachments

~~NOI is currently in process with WKU Academic Affairs (10/6/2023) and is attached above.~~

Reviewer Comments

Course Change Request

Date Submitted: 09/14/24 1:10 pm

Viewing: **ME 347 : Mechanical Systems**

Laboratory

Last approved: 09/27/23 3:17 am

Last revision: 09/14/24 1:10 pm

Changes proposed by: kvn81606

Catalog Pages
referencing this
course

[Mechanical Engineering \(ME\)](#)

[School of Engineering and Applied Sciences](#)

Proposed Action

Active

Contact(s)

Name	E-mail	Phone
Kevin Schmaltz	kevin.schmaltz@wku.edu	270 745-8859

Review Type [Full Review](#) Expedited

Term for implementation Spring 2025

Academic Level Undergraduate

Course prefix (subject area) ME - Mechanical Engineering

Course number 347

Department Engineering & Applied Sciences, School of

In Workflow

1. **EAS Approval**

2. **SC Dean**

3. SC Curriculum
Committee

4. Undergraduate
Curriculum
Committee

5. University Senate

6. Provost

7. Course Inventory

Approval Path

1. 09/17/24 3:36 pm
Mark Cambron
(mark.cambron):
Approved for EAS
Approval

History

1. Sep 27, 2023 by
Kevin Schmaltz
(kevin.schmaltz)

College Science and Engineering

Course title

Mechanical Systems Laboratory

Abbreviated course title MECHANICAL SYSTEMS LABORATORY

Course description

Implementation of fundamental principles and physical laws governing the response of mechanical system components to external forces and constraints. Students will learn how to plan, conduct, and report on a variety of experiments and projects to measure the performance characteristics of mechanical systems.

Credit hours 1

Repeatable

Yes

Number of repeats 2

For maximum credits 1

Default grade type Standard Letter Alternate grade type(s)

Is this course intended to span more than one term?

No

Schedule type

Lab

CIP Code 141901 - Mechanical Engineering.

Does this course have prerequisites

Yes

Prerequisites

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
		ME 241	D	UG		
And		MATH 331	D	UG		Yes

Corequisites

ME 310 - Engineering Instrumentation and Experimentation

Equivalent Courses

Restrictions:

College restriction? No

Field of study restriction/major? No

Classification restriction? No

Departmental Restrictions

Reason for changing the course

A prerequisite of Math331 (Differential Equations) is not required for the material in the class. This prerequisite has been removed. ~~adding Learning outcomes and topics to Courseleaf~~

Is this related to other courses at WKU?

No

What departments/programs have been consulted concerning potential impact (e.g. to possible duplication or conflict, changed corequisite or prerequisite for equivalent courses, etc.)? Please provide names and dates for individuals consulted.

this has no real impact because Math331 is still a requirement for all ME majors, however the Math Program was informed of this change on September 14, 2024. ~~none, course is only taken by ME students~~

Is this course part of a program that leads to teacher certificate? No

Are you seeking Colonnade approval for this course? No

Student Learning Outcomes

#	Student Learning Outcomes
1	Plan, conduct, analyze, and evaluate basic experiments
2	Evaluate factors such as force and position changes that are relevant to mechanical system design
3	Measure system response by strain gauge technology
4	Measure structural deflections and stresses

#	Student Learning Outcomes
5	Analyze the dynamic signals in the design of electrical measurement systems
6	Compare analytical results to predictions from theoretical model
7	Communicate test results through reports or presentation

Content outline

#	Topic
1	Calibration Methods
2	Mechanical Testing: Cantilever beam, torsional and eccentric loadings
3	Simulink modeling
4	Strain-gauge measurements
5	Signal analysis
6	RC filters
7	Dynamic modeling (2nd order)

Student expectations and requirements

Tentative texts and course materials

Special equipment, materials, or library resources needed

Additional information

Supporting documentation

Reviewer Comments

Program Change Request

Date Submitted: 09/17/24 10:46 am

Viewing: **543P, 543 : Mechanical Engineering, Bachelor of Science**

Last approved: 05/09/23 9:45 am

Last edit: 09/17/24 10:46 am

Changes proposed by: kvn81606

Catalog Pages

Using this Program

[Mechanical Engineering, Bachelor of Science \(543P, 543\)](#)

Proposed Action

In Workflow

1. **EAS Approval**
2. **SC Dean**
3. SC Curriculum Committee
4. Undergraduate Curriculum Committee
5. University Senate
6. Provost
7. Program Inventory

Approval Path

1. 09/16/24 1:08 pm
Mark Cambron (mark.cambron):
Rollback to Initiator
2. 09/17/24 3:35 pm
Mark Cambron (mark.cambron):
Approved for EAS Approval

History

1. Jan 26, 2021 by Jessica Dorris (jessica.dorris)
2. May 26, 2021 by Rheanna Plemons (rheanna.plemons)
3. Jun 16, 2021 by Jessica Dorris (jessica.dorris)
4. Sep 27, 2021 by Jennifer Hammonds (jennifer.hammonds)
5. May 9, 2023 by Kevin Schmaltz (kevin.schmaltz)

Active

Contact Person

Name	Email	Phone
Kevin Schmaltz	kevin.schmaltz@wku.edu	270 745-8859

Term of Implementation 2025-2026

Program Reference Number 543P, 543

Review Type Full Review

Academic Level Undergraduate

Program Type Major

Degree Types Bachelor of Science

Department Engineering & Applied Sciences, School of
College Science and Engineering

Program Name (eg. Biology) Mechanical Engineering, Bachelor of Science

Will this program have concentrations?
No

CIP Code 14.1901 - Mechanical Engineering.

Will this program lead to teacher certification?
No

Does the proposed program contain 25% or more new content not previously taught in another course at WKU? If yes, contact the Office of the Provost for additional SACSCOC proposal requirements

No

Catalog Content

Program Overview (Catalog field: Overview tab)

Mechanical engineers are involved in designing and building almost everything that is needed in our modern world, from nearly invisible electro-mechanical devices to enormous power generating and distribution systems producing millions of horsepower. Mechanical engineers use scientific principles from the physical world to create a tremendous variety of mechanical and thermal systems. Practicing mechanical engineers use these principles to design, analyze, manufacture, and maintain systems that include:

automobiles and aircraft

heating and cooling systems

electric power plants

specialized materials

manufacturing plants

industrial equipment and machinery

Mechanical engineers need a solid understanding of engineering science, which includes mechanics, engineering materials, thermodynamics and fluid mechanics. The program at WKU focuses on these sciences as well as design and professional skills necessary for a successful career in mechanical engineering. Our graduates have a strong competitive advantage with their unique background of engineering fundamentals combined with practical knowledge and experience. The mechanical engineering program provides a project-based, learner-driven environment relevant to the needs of modern society. In support of this learning environment, the professional engineering activities of the faculty create opportunities for the students to practice the art and science of contemporary Mechanical Engineering.

The curriculum requires a minimum of 58.5 technical specialty hours, completion of required Colonnade coursework, and 32-33 semester hours of required mathematics and science.

The WKU Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET,

<http://www.abet.org>.

Mechanical Engineering Program Educational Objectives

The mission is achieved by focusing on specific program educational objectives. Within a few years of completing the Mechanical Engineering Program, a graduate will:

Objective 1: Either be contributing to their regions' economic development through employment in mechanical engineering or related professions, or pursuing advanced credentials.

Objective 2: Occupy leadership roles in their profession, or in their communities, as their career develops

Objective 3: Demonstrate professionalism on diverse teams across a range of varied responsibilities

Objective 4: Be proactive in their professional development and engage in the continuing education needed to maintain and enhance their career.

For detailed information on the mechanical engineering program, please see the "Mechanical Engineering Program Guide" (available at <http://wku.edu/seas>) and/or contact your advisor.

Curriculum Requirements (Catalog field: Program Requirements)

Program Requirements (58.5 hours)

Approved Shared Content from /shared/undergraduate-major-requirements/

Last Approved: Jul 3, 2024 1:10pm

A baccalaureate degree requires a minimum of 120 unduplicated semester hours. More information can be found at www.wku.edu/registrar/degree_certification.php.

Students who began WKU in the Fall 2014 and thereafter should review the Colonnade requirements located at:
<https://www.wku.edu/colonnade/colonnaderequirements.php>.

Academic Standards for the Mechanical Engineering Program

Students are admitted as a Pre-Major in Mechanical Engineering. In order to transition from Pre-Major to Major and to graduate with a degree in Mechanical Engineering, student must satisfy the requirements below. All courses below must have a grade of "C" or better.

College Composition (F-W1)		3
Human Communications (F-OC)		3
MATH 136	Calculus I (or equivalent credit)	4
MATH 137	Calculus II (or equivalent credit)	4
PHYS 255 & PHYS 256	University Physics I and University Physics I Lab	5
Select one of the following:		4-5
CHEM 116 & CHEM 106	Introduction to College Chemistry and Fundamentals of General Chemistry Laboratory	
CHEM 120 & CHEM 121	College Chemistry I and College Chemistry I Laboratory	
EM 222	Statics	3
Total Hours		26-27

These pre-major eligibility requirements MUST be completed before enrolling in [ME 200](#): Sophomore Design. Check degree audit for progress towards meeting these requirements.

Program Requirements

ME 176	Mechanical Engineering Freshman Design	1
ME 180	Freshman Design II	3
ME 200	Sophomore Design	3
ME 220	Engineering Thermodynamics I	3
ME 240	Materials and Methods of Manufacturing	3
ME 241	Materials and Methods of Manufacturing Lab	1
ME 310	Engineering Instrumentation and Experimentation	3
ME 325	Elements of Heat Transfer	4
ME 330	Fluid Mechanics	3
ME 332	Fluid Mechanics Laboratory	1
ME 344	Mechanical Design	3
ME 347	Mechanical Systems Laboratory	1

ENGR 490	Senior Project 1	2
ENGR 491	Senior Project II	3
EE 210	Circuits & Networks I	3.5
EM 222	Statics	3
EM 303	Mechanics of Deformable Solids	3
EM 313	Dynamics	3
Mechanical Engineering Technical Electives		15
Choose from the following list:		
ME 321	Engineering Thermodynamics II	
ME 494	WKU ME Selected Topics	
ME 495	WKU ME Selected Projects	
ME 496	WKU – ME Selected Topics (Fall)	
ME 497	WKU – ME Selected Topics (Spring)	
ME 498	Course ME 498 Not Found	
ME 499	Course ME 499 Not Found	
CE 305	Risk Analysis	
CE 382	Structural Analysis	
EE 460	Continuous Control Systems	
ENGR 360	System Dynamics and Modeling	
ENGR 400	Principles of Systems Engineering	
PHYS 318	Data Acquisition Using Labview	
Total Hours		61.5
Additional Required Courses		
MATH 136	Calculus I	4
MATH 137	Calculus II	4
MATH 237	Multivariable Calculus	4
MATH 331	Differential Equations	3
PHYS 255 & PHYS 256	University Physics I and University Physics I Lab	5
PHYS 265 & PHYS 266	University Physics II and University Physics II Laboratory	5
Pick one Chemistry option		
CHEM 120 & CHEM 121	College Chemistry I and College Chemistry I Laboratory	5

CHEM 116 & CHEM 106	Introduction to College Chemistry & Fundamentals of General Chemistry Laboratory	4
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Math and Science Elective **3**

Each mechanical engineering student must also take at least one mathematics / science elective, for a total of a minimum of 32 hours of mathematics and science courses beginning with [MATH 136](#). This elective must be chosen from the following list:

ASTR 214	General Astronomy
BIOL 120 & BIOL 121	Biological Concepts: Cells Metabolism and Genetics and Biological Concepts: Cells, Metabolism, and Genetics Lab
BIOL 122 & BIOL 123	Biological Concepts: Evolution, Diversity, and Ecology and Biological Concepts: Evolution, Diversity, and Ecology Lab
BIOL 207	General Microbiology
CHEM 222 & CHEM 223	College Chemistry II and College Chemistry II Laboratory
PHYS 316	Computational Physics
PHYS 318	Data Acquisition Using Labview
MATH 305	Introduction to Mathematical Modeling
MATH 307	Introduction to Linear Algebra
MATH 310	Introduction to Discrete Mathematics
MATH 370	Applied Techniques in Mathematics
STAT 301	Introductory Probability and Applied Statistics

Total Hours 37

Students must complete a minimum of 32 hours of mathematics and science courses beginning with [MATH 136](#). Student must also satisfy the WKU Colonnade requirements.

4-Year Plan

Finish in Four Plan

First Year

Fall	Hours	Spring	Hours
ME 176	1	ME 180	3
MATH 136	4	MATH 137	4
CHEM 116 & CHEM 106 (or CHEM 120/121)	4	PHYS 255	4
ENG 100	3	PHYS 256	1
COMM 145	3	EM 222	3
	15		15

Second Year

Fall	Hours	Spring	Hours
ME 240	3	ME 200	3

First Year

Fall	Hours	Spring	Hours
ME 241	1	MATH 331	3
MATH 237	4	EM 303	3
PHYS 265	4	EE 210	3.5
PHYS 266	1	ENG 200	3
HIST 101 or HIST 102	3		
	16		15.5

Third Year

Fall	Hours	Spring	Hours
ME 220	3	EM 313	3
ME 344	3	ME 330	3
ME 310	3	ME 332	1
ME 347	1	ME Technical Elective	3
Math/Science Elective	3	ME 497	3
Colonnade - Arts & Humanities	3	ME Technical Elective	<u>3</u>
		Colonnade - Social & Behavioral	3
	16		16

Fourth Year

Fall	Hours	Spring	Hours
ME 325	4	ENGR 491	3
ENGR 490	2	ME Technical Elective	3
ME Technical Elective	3	ME Technical Elective	3
Colonnade - Social & Cultural	3	Colonnade - Local to Global	3
ENG 300	3	Colonnade - Systems	3
	15		15

Total Hours 123.5

Will this program be managed or owned by more than one department?

No

Does this program include courses from outside your department?

Yes

Outside Courses

Details

Who approved including these courses?	When were they approved?
CE program coordinator approved CE305 and CE382 as ME TE classes	September 2024

Please insert one Learning Outcome per box. Click green plus sign for additional LO boxes

Learning Outcomes
and Measurement
Plan

	List all student learning outcomes of the program.	Measurement Plan
SLO 1	Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics. (ABET #1)	Material is collected and assessed from specific classes using a rubric. A senior exit survey is conducted to ask student to rate their perception of attainment of outcome. Average grades in relevant courses.
SLO 2	Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts. (ABET #4)	Material is collected and assessed from specific classes using a rubric. A senior exit survey is conducted to ask student to rate their perception of attainment of outcome.
SLO 3	Graduates have an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives. (ABET #5)	Results from the Comprehensive Assessment of Team Member Effectiveness (CATME) is evaluated. Material is collected and assessed from specific classes using a rubric. A senior exit survey is conducted to ask student to rate their perception of attainment of outcome.

Assessment Template: https://www.wku.edu/academicaffairs/ee/assurance_learning_resources.php

Upload Assessment
Plan

Delivery Mode

Is 25% or more of this program offered at a location other than main campus?

No

Enter Location(s)
and Percentage of
Program Offered at
Location(s)

Is 50% or more of this program offered by distance education (online asynchronous, online synchronous, connected classrooms, etc.)?

No

Do you plan to offer 100% of this program online?

No

If no, enter the percentage of the program that
will be taught online.

0

Do you plan to offer 100% of this program face-to-face?

Yes

Do you plan to offer at least 25% of this program as a direct assessment competency-based educational program?

No

See the SACSCOC Policy on Direct Assessment Competency-based Educational Programs.

<https://www.sacscoc.org/pdf/081705/DirectAssessmentCompetencyBased.pdf>

Library Resources

Attach library resources

Rationale for the program proposal?

Correcting an omission of the number of program technical electives required; this was changed in spring 2023 -- 15 technical elective credits are now required for the ME program since ME300 was removed as a program requirement.

Adding two Civil Engineering classes as acceptable options for ME program technical electives (CE305 and CE382).

Additional Attachments [ME Curriculum revisions justification.pdf](#)

Additional information or attachments

Reviewer Comments

Mark Cambron (mark.cambron) (09/16/24 1:08 pm): Rollback: see email. Small changes only.