

The Lincoln University
Department of History, Political Science, Philosophy, and Religion
Pan-Africana Studies Program

COURSE TITLE:	Blacks in the Sciences	COURSE NUMBER:	PAS103
CREDIT HOURS	3	PREREQUISITE (S):	None
TERM:		CO-REQUISITE (S)	None
COURSE METHOD	Standard lecture and Web assisted	MEETING DAY AND TIME:	
INSTRUCTOR:		CLASSROOM LOCATION:	
OFFICE LOCATION:		E-MAIL:	
OFFICE HOURS:		PHONE EXTENSION:	

COURSE DESCRIPTION: This is the first part of a series that focuses on STEM and Pan-Africana Studies. This particular course is an introductory survey course on the historical through present day contributions of African descendants to the areas of STEM and Medicine. The course includes a survey of famous Black Inventors.

REQUIRED TEXT:

Van Sertima, Ivan [Editor], *Blacks in Science: Ancient and Modern*. Transaction Publishers, 1992.
 Woods, Geraldine, *Science in Ancient Egypt*. Grolier Publishing, 1998. **ISBN-13:** 978-0531159156
Black Scientists & Inventors, An Empak Black History Publication Series, V. 2, 1996. **ISBN-13:** 978-0922162024

Primary Source data and articles will also be collected and utilized.

REQUIRED MATERIALS: None

ASSESSMENT CRITERIA & ALIGNMENT (USE NUMBERS ONLY)

Course SLO	PSLOs (indicate #only)	ILOs (indicate #only)	Direct and Indirect Assessment Methods
CSLO 1	1	1	Pre/Post Test, Discussions
CSLO 2	1, 5, 6	5	Discussions, Embedded Questions in Tests
CSLO 3	2, 6	1	Embedded Questions in Tests

COURSE STUDENT LEARNING OUTCOMES (CSLO):

Upon successful completion of this course the student will:

- CSLO #1: list and discuss contributions of African communities, African American communities, and persons to the STEM disciplines including medicine and inventions.
- CSLO #2: discuss, analyze and evaluate the assumptions and misconceptions about the lack of contributions of African descendants to the Scientific Community.
- CSLO #3: locate, evaluate and effectively use digital information to become self-informed about the contributions of African descendants to the Scientific Community.

Pan-Africana Studies Program Learner Outcomes (PAS-PSLOs):

- 1) Demonstrate ability to compare and contrast the history, scope, experiences, and initiatives of African peoples.
- 2) Demonstrate ability to articulate how economical, political, social, psychological and technical changes impact ideas, social relations and political organizations.
- 5) Demonstrate the ability to describe and evaluate the Afrocentric and non-hegemonic approaches to the investigation, interpretation and evaluation of human experiences and initiatives.
- 6) Demonstrate critical reading and analytic skills used to formulate theses related to specific topics with supporting evidence and argumentation.

INSTITUTIONAL LEARNING OUTCOMES (ILO):

ILO #1: **Effective Communication:** Students will effectively communicate in oral, written and visual form.

ILO #5: **Critical Thinking:** Students will reason abstractly and think critically to make connections between ideas and experiences and to solve novel problems.

CALCULATION OF FINAL GRADES:

Class discussion and participation	40%
Written assignments	20%
Exams (2 at 20% each)	40%
Total	100%

GRADING SCALE: (Should follow Department and/or College Template)

Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	F
GPA Points	4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0.0
%	100-92	91-90	89-88	87-82	81-80	79-78	77-72	71-70	69-66	65-60	59 and under

SCHEDULE OF LEARNING TOPICS COVERED

CLASS MEETS:	
•ASSIGNMENT SELECTION & SCHEDULE MAY BE SUBJECT TO CHANGE•	
Week 01:	Introduction/Pre-Test
Lesson 01:	The Lost Sciences of Africa: An Overview Ivan Van Sertimer (Editor)
Lesson 02:	Agriculture; Architecture and Engineering
Lesson 03:	Aeronautics; Navigation; Metallurgy
Lesson 04:	Mathematics; Physics; Medicine
Lesson 05:	Review
Midterm	Mid-term Week
Lesson 06:	Early African American Science and Inventions

Lesson 07:	Survey of Modern African Americans in STEM, Medicine and Invention
Lesson 08:	Survey of Modern African Americans in STEM, Medicine and Invention
Week 14:	Review and Post test
Week 15:	(final exam)

UNIVERSITY ATTENDANCE POLICY:

Lincoln University uses the class method of teaching, which assumes that each student has something to contribute and something to gain by attending class. It further assumes that there is much more instruction absorbed in the classroom than can be tested on examinations. Therefore, students are expected to attend all regularly scheduled class meetings and should exhibit good faith in this regard. <http://www.lincoln.edu/registrar/2015Catalog.pdf>

STUDENTS WITH DISABILITIES STATEMENT:

Lincoln University is committed to non-discrimination of students with disabilities and therefore ensures that they have equal access to higher education, programs, activities, and services in order to achieve full participation and integration into the University. In keeping with the philosophies of the mission and vision of the University, the Office of Student Support Services, through the Services for Students with Disabilities (SSD) Program, provides an array of support services and reasonable accommodations for students with special needs and/or disabilities as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The Services for Students with Disabilities Program seeks to promote awareness and a campus environment in which accommodating students with special needs and/or disabilities is natural extension of the University's goal.

Any student with a documented disability should contact the Office of Student Support Services. <http://www.lincoln.edu/studentservices/index.html>

UNIVERSITY ACADEMIC INTEGRITY STATEMENT:

Students are responsible for proper conduct and integrity in all of their scholastic work. They must follow a professor's instructions when completing tests, homework, and laboratory reports, and must ask for clarification if the instructions are not clear. In general, students should not give or receive aid when taking exams, or exceed the time limitations specified by the professor. In seeking the truth, in learning to think critically, and in preparing for a life of constructive service, honesty is imperative. Honesty in the classroom and in the preparation of papers is therefore expected of all students. Each student has the responsibility to submit work that is uniquely his or her own. All of this work must be done in accordance with established principles of academic integrity. <http://www.lincoln.edu/registrar/2014Catalog.pdf>

POLICY ON ELECTRONIC DEVICES IN CLASSROOM:

Electronic devices are only to be used when instructed by the Professor. Any violation of this instruction can lead to a reduction of the student's grade

MODES OF INSTRUCTION

1. Material will be covered by lectures, digital presentations, videos/movies, assigned reading and research.
2. Additional information may be distributed in the form of hand-outs.
3. Student participation is always encouraged and is required on discussion days.

Assignment Guidelines

Reading assignments include the chapters listed at the end of the syllabus. All assigned chapters are required. Discussion assignments are made at least one week in advance.

- 1 Reading assignments for all chapters covered are announced in class and posted on the assigned LMS (Google and/or Moodle). A summary is handed out and posted before in-class exams.
- 2 There will be two in-class discussion days during the semester and two LMS discussions during the semester. Students are asked to gather/study information on one or more topics. (The topics are chosen from a group of four or five topics specified by the professor, relevant to the chapters covered during that segment of the course.) The student should be familiar with the topic he/she has chosen and must be able to add substantive information, insight or ideas to the discussion of that topic for full credit.
- 3 Missed Exams must be made up. It is the responsibility of the student to make an appointment with the professor to take a make-up exam within one week following a missed exam.

Some Interesting web sites

<http://www.famousscientists.org/15-famous-black-scientists-in-history/>

<https://webfiles.uci.edu/mcbrown/display/faces.html>

<http://science.howstuffworks.com/innovation/scientific-experiments/10-black-scientists.htm>

https://en.wikipedia.org/wiki/List_of_African-American_inventors_and_scientists