

## **HST 312: History of Women in Science and Medicine**

**Semester:** Fall 2024

iCourse

Session A

**Instructor:** Dr. Valerie Adams

**Contact Info:**

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Office: Santa Catalina 251J Polytechnic Campus

Office Hours: I check email Monday - Friday. If you email me late at night or on the weekends you may have to wait for a reply. I am also happy to meet with you in my office at a time convenient for us both. Just ask for an appointment. Feel free to send a second email if I don't reply quickly. I don't mind the reminder.

**Enrollment Requirements:** Prereqs are ENG 102, 105, or 108 with C or better; minimum 30 hours

**General Studies Maroon: SB**

**General Studies Gold: HUAD:** This course fulfills the ASU Humanities, Arts and Design General Studies requirement. Students completing a Humanities, Arts and Design course will be able to: Analyze cultural, political, or social practices, texts, or discourses in historical or contemporary context; Communicate coherent arguments or narratives using evidence drawn from qualitative or quantitative sources; Identify perspectives or values as manifested in a given philosophical or religious framework or a given historical or cultural context.

**Course Description:** In-depth inquiry into the history of gender issues in Western science and medicine from Greco-Roman antiquity through the beginning of the 21st century.

**Course Overview:**

In this advanced history course, you will have opportunities to develop a range of skills that should serve you well while you are a student at ASU. You will hone your writing skills in weekly discussion board assignments and through your bio/research paper. You will improve your critical thinking skills as well as your time management skills. Of course, you will learn the history of women in science and medicine, which ought to serve you well in your degree and in your overall well-roundedness.

There are all sorts of scientific advances throughout history that directly involve women, but we can address only a limited number of them in a fifteen-week course. In general, we will look at two things – individual women scientists and their remarkable work, as well as more general scientific themes pertinent to the female experience with science over the last two centuries. This class, as I teach it, deals less with gender theories and discrimination and more with the nuts and bolts of Women in Science & Medicine. We all know Eisenstein and Salk, but less remembered are their female counterparts, Emmy Noether (mathematician) and Gertrude Belle Elion (various pharmaceutical drugs). Our goal is to illuminate the work of great scientists who happen to also be women.

There is lots of room for educated opinions backed by evidence, as well as the black and white historical facts. I like to equate those two ideas to math – you cannot learn calculus (educated opinion and big picture discussions) without first learning algebra (names, dates, solid facts). In addition, the nature of online learning lends itself to lots of discussion and limited lecture. We will learn primarily through the discussion board, feeding off the readings and class discussion. It is imperative that you spend plenty of time reading everyone's posts on the discussion board and participating by writing your own posts and replies. You will find that most of my "lecture" will be found within each module as a document.

### **Performance Objectives:**

Upon completion, students will be able to:

- To develop a knowledge and appreciation of the major women in the sciences.
- To identify the major events, people, and dates in the story of women in science since circa 1800.
- To learn how science has directly impact our culture.
- To appreciate how an understanding of the past allows you to better shape your opinions and knowledge of the present and future.
- To improve your writing, reading, and critical thinking skills.
- To have fun learning history

### **Required Course Textbooks**

1. McGrayne, Sharon Bertsch. *Nobel Prize Women in Science: Their Lives, Struggles, and Momentous Discoveries*. 2<sup>nd</sup> Edition. (Washington DC: Joseph Henry Press, 1998).

### **Graded Work**

#### ***Topical Discussion Boards***

There are several discussion board prompts. They are already posted so that you may familiarize yourself with what is expected. These assignments are each worth a possible 20 points. Please see the guidelines and grading criteria below.

### Posting weekly assignments – guidelines

1. Write it well – remember there is a spell check. Perhaps craft your response in Word first and cut and paste it into the discussion board. DO NOT paste it as an attachment
2. Be insightful - add some analysis and you'll get more points. Answers that express conclusions based on evidence, or the relevance of an argument, you are really getting there. Give me new information, present a wider view, make connections to past learning, or propose a solution with explanation and now we have an answer worthy of full credit.
3. Post even if late – partial credit will be awarded.
4. Post replies to your classmates – in the online environment the only way to learn is COLLABORATIVELY – you cannot do it alone. Just because it is online, and you are “by yourself,” you have 20+ students who would love to hear from you and vice versa. This is how we learn online.
5. Feel free to ask questions.

### ***Biographical Research Paper***

Submit a 6–7-page paper. I consider 6-7 pages to reflect text, not cover pages, end notes, etc. Original work to this class and no AI.

- Decide upon a woman in the sciences that we have not covered in class materials to research in depth.
- The paper ought to capture the essence of her biographical story. By the time the paper is due you will have read many biographies from Sharon Bertsch McGrayne's book to help inspire your own work.
- There is no specific assignment as to how the paper must be crafted. That is up to you. You need to think carefully about which direction, or which focus, or which question you might structure your paper around. I do not wish to read what one might find as a *New York Times* obituary, but rather find a meaning (a strong thesis) to anchor your paper.
- It is required that your paper ought to reflect material from *no fewer* than three non-class assigned sources.

### ***Exams***

There will be a midterm and a final exam.

### **Grading**

As the following table suggests, all the work in the course is important because all of it is designed to help you achieve the general learning goals.

Assignment	Points
Final Exam	40
Midterm Exam	40

8 Discussion Board Assignments @ 20 points each	160
Biographical Research Paper	100
Total	340

Grades will be based on the following definitions: The grade of C shall indicate competent, acceptable performance and learning [average]; the grade of B shall indicate superior performance and learning [above average]; the grade of A shall indicate excellent performance and learning [superior]. With moderate effort and preparation, a grade of C should be obtainable to everyone in this class. An A will require vigorous effort and preparation.

### Grade Scale

Assignment grades will be determined by the percentage you accumulate below. Final letter grades will include plusses and minuses, as per University standards and as reflected in your Canvas class.

A	90-100	Excellent
B	80-89.9	Good
C	70-79.9	Average
D	60-69.9	Passing
E	<60	Failure
XE		Failure due to Academic Dishonesty
EU		Failing, did not complete
EN		Failing, never participated

### ***Missing & Late Work:***

You are responsible for a variety of assignments. If you fail to hand in work by the due date I will accept late work at a penalty. My policy is to deduct a third of a letter grade per day late for papers. If your paper assignment is late, I will reduce your grade by one third of a letter for each day that it is late. For instance, if you earn a “B” on a paper that was due on Wednesday, but you turn it in on Friday, I will record “C+” in the grade book. Discussion boards will be scored down one point per day late.

Please note that if you do not submit written work, you will receive a zero for that work. All work is to be original – not recycled from a previous or current class, nor copied from AI.

**\*\*\*Missing Work:** You are responsible for a variety of assignments. However, failure to complete any one of the following will result in a final grade of F for the course, regardless of your numeric grade: *Biographical Research Paper*.

### **Course Reading & Assignment Schedule**

**Note:** For each class session, I have listed the readings and activities that I can anticipate before the semester begins. Depending on your needs, we may add, delete, and/or modify some activities as the semester unfolds.

**Due Dates:** All of the due dates are indicated in bold in parenthesis – nearly all assignments are due by midnight on FRIDAYS or SUNDAYS.

You are to also complete all the material in each module.

<b>WEEK</b>	<b>TOPIC</b>	<b>Textbook Reading &amp; Assignment Due Dates</b>
1 Aug. 22	Introductions The Curie Dynasty	Read: McGrayne #2 and #6 DB #1 <b>(8/23)</b>
2 Aug. 26	Science Education	DB #2 <b>(8/30)</b>
3 Sept. 3	Nobel Work in Physics	Read: McGrayne #3, #4, #8, #11 DB #3 <b>(9/06)</b>
4 Sept. 9	Women & The Environment	DB #4 <b>(9/13)</b> <b>Complete Midterm by Sunday (9/15)</b>
5 Sept. 16	Biology	Read: McGrayne #5, #7, #9, #13 and #16 DB #5 <b>(9/22)</b>
6 Sept. 23	Miracle Workers	Read: McGrayne #10 and #12 and #14 DB #6 <b>(9/29)</b>
7 Sept. 30	Searching the Heavens	Read: McGrayne #15 DB #7 <b>(10/04)</b> <b>Turn in paper by Sunday, Oct. 6</b>
8 Oct. 7	Future Prospects	DB #8 <b>Post by Thursday &amp; Responses Friday</b> <b>Complete Final Exam by Friday (10/11)</b>

**To be successful:**

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track
- access [ASU Online Student Resources](#) or [CISA Academic Resources](#)

## Submitting Assignments

For your own protection, you should keep a copy of everything you hand in, and you should keep your graded assignments at least until grades are finalized at the end of the semester in the event you wish to contest any grades.

All assignments, unless otherwise announced by the instructor, **MUST** be submitted to the designated area of Canvas. Do not submit an assignment via email.

Assignment due dates follow Arizona Standard time. Click the following link to access the [Time Converter](#) to ensure you account for the difference in time zones. Note: Arizona does not observe daylight savings time.

## Classroom Use of Generative AI (i.e. Chat GPT, Bard, etc.)

ASU and the College of Integrative Sciences and Arts have established policies and guidelines for the use of Generative AI (Gen AI) such as ChatGPT in our courses. In this course, you may be allowed to use Gen AI under some circumstances **with explicit permission from the instructor**. Some assignments in this course may include or allow the use of Artificial Intelligence (AI), including ChatGPT or related tools for the creation of text, images, computer code, audio, or other media.

Your instructor will inform you when, where, and how you may use these tools, and provide guidance for attribution. Use of generative AI tools in any other context in this course will be considered a violation of the [ASU Academic Integrity Policy](#), and students may be sanctioned for confirmed, non-allowable use. If at any point you have questions about what is permitted, contact the instructor to discuss before submitting work.

## Grade Appeals

Students must first speak with the instructor of the class to discuss any disputed grades. If this discussion does not result in a satisfactory resolution, the student may appeal in writing providing documentation to the faculty head or professor in charge of the instructor's area who will employ the area's procedures to resolve the grievance. For faculty head contact information, please reach out to [CISA@asu.edu](mailto:CISA@asu.edu). Student grade appeals must be processed in the regular semester immediately following the issuance of the grade in dispute (by commencement for fall or spring), regardless of whether the student is enrolled at the university. Complete details are available in [Student Grade Appeals](#).

## Course Time Commitment

Coursework includes all learning activities including reading, watching videos, studying, and completing assignments. Arizona Board of Regents (ABOR) requires 45 hours of coursework per credit for college-level courses, which translates to:

- 1 credit hour = 45 total hours
- 2 credit hours = 90 total hours

- 3 credit hours = 135 total hours
- 4 credit hours = 180 total hours
- 5 credit hours = 225 total hours

ASU courses range in length from 6 weeks to 15 weeks. Below is a breakdown of the 135-hour required time commitment for a three-credit course divided among weeks for courses of various lengths.

<b>Course Length</b>	<b>Time on Coursework per week</b>	<b>Total Time Requirement for 3 credit course</b>
6 weeks	22.5 hours	135 hours
7.5 weeks	18 hours	135 hours
8 weeks	17 hours	135 hours
15 weeks	9 hours	135 hours

## **Communicating with your Instructor and Classmates**

### **Classroom Community**

To build a course climate that is comfortable for all, it is important that students (1) display respect for all members of the class – including the instructor and students; (2) pay attention to and participate in all interactive student partner/instructor sessions and activities; and (3) observe the rules of appropriate online behavior (also known as *netiquette*). This term is defined by the instructor and includes keeping course discussion posts and oral communication with other students (or the instructor) focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. In addition, they must avoid racist, sexist, homophobic, or other negative language that may unnecessarily exclude course members. This is not an exhaustive list of behaviors; rather, it represents examples of the types of things that can have a dramatic impact on the course environment. Your final grade may be reduced each time you engage in the types of negative behaviors indicated above.

### **Email**

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

**All instructor correspondence will be sent to your ASU email account.**

### **Campus Network Outage and Technical Support**

When access to Canvas is not available for an extended period of time (greater than one entire evening) you can reasonably expect that the due date for assignments will be changed to the next day (assignment still due by 11:59 pm).

To monitor the status of campus networks and services, please visit the System Health Portal [ASU System Health](#).

## **Technical Support**

This course uses Canvas to deliver content. You can access Canvas through your [MyASU](#) portal.

To contact the help desk you have two options:

- For immediate assistance, call ASU at 1-855-278-5080.
- Visit the [ASU Experience Center](#) to get personalized support through 24/7 live chat or submit your request online [MyASU Service](#).

## **Trigger Warning**

Please note that some course content may be deemed offensive by some students, although it is not my intention to offend anyone. In addition, some materials that we link with online might also be considered offensive, troubling, or difficult to review in terms of language or graphics. I attempt to provide warnings when introducing this kind of material; yet, if I forget to do so, or if something else (in my materials or posts from fellow students) seems offensive, please contact me at <email@asu.edu>, or the faculty head, <name>.

## **ASU POLICIES**

### **ASU Online Course Policies**

View the [ASU Online Course Policies](#).

### **Academic Affairs Manual**

For a complete guide to Arizona State University course policies, please refer to the [Academic Affairs Manual \(ACD\)](#).

### **Drop and Add Dates/Withdrawals**

If you are unable to take this course for any reason, be aware that there is a limited timeline to [drop or add the course](#). Consult with your advisor and notify your instructor to add or drop this course. If you are considering a withdrawal, review the following ASU policies: [Withdrawal from Classes](#), [Withdrawing as a Financial Aid Recipient](#), [Medical/Compassionate Withdrawal](#), and a [Grade of Incomplete](#).

### **Disability Accommodation**

ASU is responsible for providing reasonable accommodations to qualified students with disabilities to ensure courses and course materials are readily accessible. Approved

accommodations are determined on an individual student and course-by-course basis with priority given to a student's preferred accommodation. Accommodations may include, but are not limited to, alternative testing, alternative formatted materials, Interpreting, CART services, captioning, note-taking, classroom laboratory aides, and/or assistive technology. Interpreting and CART services through the Student Accessibility and Inclusive Learning Services are not available for public activities or employment on or off campus. Public, self-supporting university units (e.g., Grady Gammage Memorial Auditorium) are responsible for providing their own interpreting or CART services. This includes nonacademic credit and/or fee-based programs, lectures, classes, workshops, conferences, and activities.

### **Student Accessibility and Inclusive Learning Services (SAILS) Disability Accommodations**

Reasonable accommodations are determined on a case-by-case, course-by-course basis to mitigate barriers experienced due to a disability SSM 701-02. Students with disabilities who require accommodations must register with the Student Accessibility and Inclusive Learning Services and submit appropriate documentation. It is recommended students complete this process at the beginning of the term and communicate as appropriate with their instructor. Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to the instructor at the beginning of the semester either during office hours or by appointment.

- Email: Student Accessibility Email
- Phone: (480) 965-1234
- FAX: (480) 965-0441

### **Academic Integrity and Student Code of Conduct**

#### **Academic Integrity**

ASU expects and requires its students to act with honesty, integrity, and respect. Required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, the Computer, Internet, and Electronic Communications Policy, the ASU Student Academic Integrity Policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions.

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal.

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, college, and/or dean. Academic dishonesty includes, but is not limited to, cheating on an academic evaluation or assignment, plagiarizing, academic deceit (such as fabricating data or information), or falsifying academic records. Turning in an assignment (all or in part) that you completed for a previous class is considered self-plagiarism and falls under these guidelines. Any infractions of self-plagiarism are

subject to the same penalties as copying someone else's work without proper citations. Students who have taken this class previously and would like to use the work from previous assignments should contact the instructor for permission to do so.

If you have any questions about your work and the academic integrity policy, please discuss your assignment or concerns with your instructor, teaching assistant, or your college Academic Integrity Officer in advance of submitting an assignment

The ASU Student Academic Integrity Policy lists violations in detail. These violations fall into five broad areas that include, but are not limited to:

1. Cheating on an academic evaluation or assignment.
2. Plagiarizing.
3. Academic deceit, such as fabricating data or information.
4. Aiding academic integrity policy violations and inappropriately collaborating.
5. Falsifying academic records.

## **Student Code of Conduct**

Violations of the ASU Student Code of Conduct, other than the provision concerning academic dishonesty, are more generally considered inappropriate behavior. The Office of Student Rights and Responsibilities reviews and sanctions these matters. If a student violates both the academic integrity provision and additional provisions of the Student Code of Conduct, both the college and the Office of Student Rights and Responsibilities will review the matter. Each independently makes determinations concerning violations and appropriate sanctions.

ASU and the College of Integrative Sciences and Arts expects and requires its students to act with honesty, integrity, and respect. Required behavior standards are listed in the Student Code of Conduct and Student Disciplinary Procedures, Computer, Internet, and Electronic Communications policy, ASU Student Academic Integrity Policy, and outlined by the Office of Student Rights & Responsibilities. Anyone in violation of these policies is subject to sanctions. Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior. The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement

## **Disruptive, Threatening, or Violent Behavior**

In the classroom and out, students are required to conduct themselves in a manner that promotes a safe environment that is conducive to learning and conducting other university-related business.

All incidents and allegations of violent or threatening conduct by an ASU student will be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. Such incidents will be dealt with in accordance with the policies and procedures described in Section 104-02 of the Student Services Manual, available at [SSM 104-02](#). Be advised that an instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior [SSM 201-10](#).

All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the [Office of the Dean of Students](#). If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances

Learning takes place best when a safe environment is established in the classroom. In accordance with [SSM 104-02](#) of the Student Services Manual, students enrolled in this course have a responsibility to support an environment that nurtures individual and group differences and encourages engaged, honest discussions. The success of the course rests on your ability to create a safe environment where everyone feels comfortable to share and explore ideas. We must also be willing to take risks and ask critical questions. Doing so will effectively contribute to our own and others' intellectual and personal growth and development. We welcome disagreements in the spirit of critical academic exchange, but please remember to be respectful of others' viewpoints, whether you agree with them or not.

## **Tutoring**

Free tutoring support is available in person and online for most courses. Services are offered through ASU's University Academic Success Programs for currently enrolled students.

- Tutoring is available in math, business, science, statistics, and engineering courses.
- Writing tutoring is available for any writing project at any stage of the writing process.
- Supplemental Instruction (SI) facilitates collaborative study groups for selected courses.
- Graduate academic tutoring is available for writing and statistics.
- Academic skills tutoring can help with critical reading, study skills, note taking, and more.
- Resources are available through our YouTube channel, Zoom recordings, and handouts.

Visit [ASU Tutoring](#) or call (480) 965-9072 for more information about these services, to view our schedules, or to book an appointment.

## **Prohibition Against Discrimination, Harassment, & Retaliation**

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and

academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at [Sexual Violence Prevention FAQ](#).

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. [ASU Counseling Services](#) is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, [ASU 360 Life Services](#).

### **Copyright**

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement. For more information, see the Computer, Internet, & Electronic Communications Policy at [ACD 125](#).

The course syllabus and all other class materials (slide presentations, handouts, assignments, digital recordings, exams, quizzes, etc.) are intellectual property of Arizona State University and are not to be publicly distributed or otherwise commercialized since these materials are copyright protected. Such materials are for sole use in that designated semester. It cannot be used in any other form unless via a written statement of approval from the instructor. Commercial note taking services are prohibited in accordance with ACD 304-06 available at [ACD 304-06](#).

### **Instructor's Copyrighted Materials**

In accordance with [ACD 304-06 Commercial Note Taking Services](#), written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the note taker's name as well as the instructor's name, the course number, and the date.

### **Statement on Inclusion**

Arizona State University is deeply committed to positioning itself as one of the great new universities by seeking to build excellence, enhance access, and have an impact on our community, state, nation, and the world. To do that requires our faculty and staff to reflect the intellectual, ethnic, and cultural diversity of our nation and world so that our students learn from the broadest perspectives, and we engage in the advancement of knowledge with the most inclusive understanding possible of the issues we are addressing through our scholarly activities. We recognize that race and gender historically have been markers of diversity in institutions of higher education. However, at ASU, we believe that diversity includes additional categories such as socioeconomic background, religion, sexual orientation, gender identity, age, disability, veteran status, nationality, and intellectual perspective.

### **Mental Health**

As a student, like anyone else, you may experience a range of challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating, and/or lack of motivation. These emotional health concerns or stressful events may

diminish your academic performance and/or reduce your ability to participate in daily activities. ASU Counseling Services provides counseling and crisis services for students who are experiencing a mental health concern. Any student may call or walk-in to any ASU counseling center for a same-day or future appointment to discuss any personal concern. Here is the website: [ASU Counseling Services](#). After office hours and 24/7 ASU's dedicated crisis line is available for crisis consultation by calling 480-921-1006.

### **Course Evaluation**

Students are expected to complete the course evaluation. The feedback provides valuable information to the instructor and the college and is used to improve student learning. Students are notified when the online evaluation form is available. The results are always anonymous and cannot be reviewed by the instructor/department until after final grades have been posted.

### **Syllabus Disclaimer**

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.

### **College Contact**

This course is offered by the College of Integrative Sciences and Arts (CISA). For more information about the college, visit our website: [College](#). If you have questions about this course, please speak with your instructor. If your instructor is unable to address your questions, please send your inquiry to [CISA@asu.edu](mailto:CISA@asu.edu).