



Women's Institute of Torah Seminary/ MAALOT Baltimore

6602 Park Heights Avenue • Baltimore, Maryland 21215

T 410-358-3144 • F 866-990-1983

info@wits.edu • wits.edu

Rebbetzin Ettie Rosenbaum, *Executive Dean/Menacheles*

Dr. Leslie G. Klein, *Academic Dean*

April 10, 2019

Dr. James D. Fielder
Secretary of Higher Education
Maryland Higher Education Commission
6 N. Liberty Street
Baltimore, MD 21201

Dear Dr. Fielder,

The Women's Institute of Torah Seminary (WITS) requests approval to offer a new Bachelor of Arts in Computer Science program. The proposed program aligns with WITS' institutional mission to address the professional growth and success of Jewish women. The program will provide WITS' students with an opportunity to pursue a degree program tailored toward their career and professional goals in the field of computer science. Graduates of the program will contribute to projected workforce needs in computer science and related technology fields within Maryland and throughout the world.

Please let me know if you have any questions about the attached proposal. Payment in the amount of \$850 has been provided for the proposal review and will arrive via US mail.

Thank you in advance for your consideration.

Sincerely,

Leslie Ginsparg Klein, Ph.D.
Academic Dean
Women's Institute of Torah Seminary
lklein@wits.edu



Cover Sheet for In-State Institutions New Program or Substantial Modification to Existing Program

Institution Submitting Proposal

Women's Institute of Torah Seminary

Each action below requires a separate proposal and cover sheet.

- | | |
|--|--|
| <input checked="" type="radio"/> New Academic Program
<input type="radio"/> New Area of Concentration
<input type="radio"/> New Degree Level Approval
<input type="radio"/> New Stand-Alone Certificate
<input type="radio"/> Off Campus Program | <input type="radio"/> Substantial Change to a Degree Program
<input type="radio"/> Substantial Change to an Area of Concentration
<input type="radio"/> Substantial Change to a Certificate Program
<input type="radio"/> Cooperative Degree Program
<input type="radio"/> Offer Program at Regional Higher Education Center |
|--|--|

 Payment Yes
 Submitted: No

 Payment R*STARS
 Type: Check

Payment Amount: \$850

Date Submitted: 4/10/19

Department Proposing Program	Academic Affairs		
Degree Level and Degree Type	Undergraduate; Bachelor of Arts		
Title of Proposed Program	Bachelor of Arts in Computer Science		
Total Number of Credits	120		
Suggested Codes	HEGIS:	CIP:	
Program Modality	<input checked="" type="radio"/> On-campus	<input type="radio"/> Distance Education (<i>fully online</i>)	
Program Resources	<input checked="" type="radio"/> Using Existing Resources	<input type="radio"/> Requiring New Resources	
Projected Implementation Date	<input type="radio"/> Fall	<input type="radio"/> Spring	<input checked="" type="radio"/> Summer Year: 2019
Provide Link to Most Recent Academic Catalog	URL: http://maalotbaltimore.org/wp-content/uploads/2019/04/Academic-Catalog-18-19-FV.pdf		
Preferred Contact for this Proposal	Name:	Leslie Ginsparg Klein, PhD	
	Title:	Academic Dean	
	Phone:	(410) 358-3144	
	Email:	lklein@wits.edu	
President/Chief Executive	Type Name:	Ettie Rosenbaum	
	Signature:		Date: 04/08/2019
	Date of Approval/Endorsement by Governing Board:	01/28/2019	

Revised 3/2019

PROPOSAL FOR NEW ACADEMIC PROGRAM
THE WOMEN'S INSTITUTE OF TORAH SEMINARY

Bachelor of Arts in Computer Science

A. Centrality to Institutional Mission and Planning Priorities

1. Provide a description of the program, including each area of concentration (if applicable), and how it relates to the institution's approved mission.

The Women's Institute of Torah Seminary (WITS) seeks approval of a Bachelor of Arts in Computer Science.

The proposed Bachelor of Arts in Computer Science is directly aligned with WITS' institutional mission to address the professional growth and success of Jewish women and provide an opportunity to pursue a career in the growing field of technology. As technology becomes increasingly vital across all professions, including in the Jewish non-profit sector and within Jewish education, it becomes of paramount importance to have Jewishly-versed professionals equipped with the tools and skills to ensure the growth and success of Jewish organizations in the 21st century. The design of the proposed Bachelor of Arts in Computer Science program is focused on encouraging and supporting Jewish women as they move into careers in technology, where women are a vastly underrepresented population.

It is important to note that WITS has long offered 100% of the courses for the proposed Bachelor of Arts in Computer Science. Over the last 17 years, WITS students have been completing the necessary coursework as electives. Via collaborations with regionally accredited institutions, students have transferred the WITS elective credits to partner schools and used the credits to earn degrees in computer science from regionally accredited institutions. More simply, WITS already offers all courses for the proposed Bachelor of Arts in Computer Science, but has never sought MHEC approval to offer the major. It should also be stated that, even though WITS has not offered the degree, given the evolving nature of computer science content, the (elective) courses have always remained current to ensure students are exposed to the critical content and skills development necessary to become successful professionals in the field of computer science.

2. Explain how the proposed program supports the institution's strategic goals and provide evidence that affirms it is an institutional priority.

The proposed Bachelor of Arts in Computer Science contributes to the expansion of WITS' program offerings. WITS has a strategic vision to expand program offerings in ways that will fulfill students' explicit goals to pursue advanced (graduate) study and/or secure employment in marketable and demanding fields. The proposed Bachelor of Arts in Computer Science will continue to help achieve that vision. The proposed program promotes and advances the institutional strategic mission by providing students with another degree option that can meet their career and educational goals.

3. Provide a brief narrative of how the proposed program will be adequately funded for at least the first five years of program implementation.

As noted in Item A.1, WITS currently offers all courses for the proposed Bachelor of Arts in Computer Science. The College has been successfully running the relevant program courses for at least 17 years. As such, the proposed program will draw upon existing resources already in place. Approval of the program is not expected to lead to any additional or unknown expenditures.

Institutional processes for budgeting and resource allocation ensure (and will continue to ensure) adequate funding for sustaining the Bachelor of Arts in Computer Science for the foreseeable future. Moving forward, the program will be supported through the normal resource allocation process. The annual budgeting process will include a comprehensive review of all program expenditures to ensure investments are used wisely and for the benefit of the program and, ultimately, student success.

4. Provide a description of the institution's commitment to a) ongoing administrative, financial, and technical support of the proposed program, and b) continuation of the program for a period of time sufficient to allow enrolled students to complete the program.

The administrative, financial, and technical supports necessary to launch the proposed Bachelor of Arts in Computer Science are already in place. Courses within the proposed program are already available to students. No new or additional administrative, financial, or technical supports will be immediately needed.

As with all their educational offerings, WITS demonstrates a commitment to the delivery of rigorous curricula and the availability of required resources. Relevant to the proposed Bachelor of Arts in Computer Science, the current administrative, instructional, advising, and facilities infrastructure of WITS is more than sufficient to support the proposed program. For example, WITS maintains an up-to-date computer lab on the second floor of the campus

building. The lab has 14 computers that are dedicated for use by students studying computer science, graphic design, web design, and computer applications. Courses in those disciplines are taught in the lab and students use the lab computers to complete assignments. An Informational Technology Technician is on call to resolve technical problems as they arise. WITS maintains the computer lab with current hardware and software. All computers in the lab have been replaced within the last seven years. As a member of the Maryland Education Enterprise Consortium (MEEC), WITS can acquire education-related hardware and software needed to ensure the availability of up-to-date technological resources.

If approved, it is the expressed intent of the College that the program will be offered for the foreseeable future. Throughout program availability, WITS will continue to fulfill the administrative, financial, and technical needs of the program. Should the program ever be slated for discontinuation, all enrolled students with a declaration of the major at that point in time will be allowed to complete the program without a delay in their time to graduation.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan
--

1. Demonstrate demand and need for the program in terms of meeting present and future needs of the region and the State.

In 2017, the Governor of Maryland announced a comprehensive computer science education and workforce development plan that emphasized the need for education and training in the field of computer science. Since then, the Governor's plan, known as the ACCESS Initiative (Achieving Computer Science Collaborations for Employing Students Statewide), has aimed to strengthen computer science education across the state in order to meet the demands of a 21st century workforce and prepare students for the jobs of the future.

Also of relevance, in direct response to the ACCESS Initiative and the Governor's Cybersecurity and Information Technology Taskforce, the Baltimore Cyber Range has partnered with WITS in an initiative called Intrusion and Countermeasures Education and Training (ICE-T). The purpose of ICE-T is to identify innovative solutions that address the racial and gender disparities that exist in the cybersecurity industry. ICE-T promotes the blending of direct classroom instruction with hands-on simulation in developing necessary skills and knowledge. The ICE-T partnership has significantly grown its industry representation, with 30 employers now participating, and has placed 20 participants into employment. The ICE-T partnership began in May 2018 and WITS has had five students participate in the pilot. Four of the five participants have completed the program and passed the certifications exams. They are currently in the job placement phase. Having the computer science background

and degree is greatly beneficial for students continuing into cybersecurity training programs, such as the ICE-T partnership, as well as those entering the technology-focused job market and securing employment.

2. Provide evidence that the perceived need is consistent with the Maryland Plan for Postsecondary Education.

The proposed Bachelor of Arts in Computer Science is aligned, philosophically and strategically, with the 2017-2021 Maryland State Plan for Postsecondary Education. Specifically, the request for approval of the program is aligned with *“Strategy 6: Improve the student experience by providing better options that are designed to facilitate prompt completion of degree requirements.”* The intent of Strategy 6 is to ensure the availability of pathways that can improve degree completion and student success.

In addition, the request for approval of the program is aligned with *“Strategy 4: Continue to ensure equal educational opportunities for all Marylanders by supporting all postsecondary institutions.”* To that end, the addition of the proposed Bachelor of Arts in Computer Science would diversify WITS educational offerings and make the WITS curriculum more commensurate with other higher education institutions across the state.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State
--

1. Describe potential industry or industries, employment opportunities, and expected level of entry (ex: mid-level management) for graduates of the proposed program.

Graduates from the proposed Bachelor of Arts in Computer Science program will be employable across various computer-related industries and fields, as well as among all industries that rely heavily on technology-driven services. Common employment opportunities for a computer science graduate include, but are not limited to, the following roles:

- Computer Programmer
- Systems Manager
- Hardware Engineer
- Software Development
- Software Engineer
- Web Developer
- Network Administrator
- Systems Analyst
- Security Analyst

Compensation for computer science graduates is competitive due to the widespread demand for graduates across all areas of information technology. According to [payscale.com](https://www.payscale.com), the average annual pay for a computer scientist is currently \$78,895.¹ Payscale.com reports also that many computer scientists move into Senior Software Engineer roles, where the median annual income rises to \$94,000. With even more experience, the national average for mid-career computer scientists exceeds \$110,000.²

2. Present data and analysis projecting market demand and the availability of openings in a job market to be served by the new program.

The Maryland Department of Labor, Licensing, and Regulation provides short-term and long-term job projection data pertaining to the expected demand in Maryland for computer science occupations.³ The following table provides projected job openings in selected areas of computer science occupations through 2020.

Maryland Short-Term Occupational Projections (2018 - 2020)				
Occupational Title	2018	2020	Change	Percent Change
Computer and Information Research Scientists	2,972	3,033	61	2.05%
Computer and Information Systems Managers	11,137	11,376	239	2.15%
Computer Hardware Engineers	4,424	4,487	63	1.42%
Computer Network Architects	6,244	6,362	118	1.89%
Computer Network Support Specialists	8,271	8,387	166	1.40%
Computer User Support Specialists	12,273	12,600	327	2.66%
Network and Computer Systems Administrators	18,277	18,603	326	1.78%
Computer Systems Analysts	20,807	21,172	365	1.75%

¹ https://www.payscale.com/research/US/Job=Computer_Scientist/Salary

² <https://appliedcomputing.wisconsin.edu/about-applied-computing/computer-science-salary/>

³ <http://www.dllr.state.md.us/lmi/iandoproj/>

The following table provides projected job openings in the same selected areas of computer science occupations through 2026.

Maryland Long-Term Occupational Projections (2016 - 2026)				
Occupational Title	2016	2020	Change	Percent Change
Computer and Information Research Scientists	2,559	2,658	99	3.87%
Computer and Information Systems Managers	8,979	9,544	565	6.29%
Computer Hardware Engineers	4,031	4,274	243	6.03%
Computer Network Architects	5,395	5,820	425	7.88%
Computer Network Support Specialists	8,146	8,655	509	6.25%
Computer User Support Specialists	11,044	11,777	733	6.64%
Network and Computer Systems Administrators	13,098	14,114	1,016	7.76%
Computer Systems Analysts	14,950	16,080	1,130	7.56%

3. Discuss and provide evidence of market surveys that clearly provide quantifiable and reliable data on the educational and training needs and the anticipated number of vacancies expected over the next 5 years.

The Bureau of Labor Statistics⁴ reports that the job outlook for computer science professionals through 2026 shows an estimated growth of 19%, which is faster than the average for other positions. The Bureau of Labor Statistics projects that Maryland will have 180 annual job openings. In addition, 33,200 openings are projected nationwide through 2026.

4. Provide data showing the current and projected supply of prospective graduates.

Enrollment at WITS runs considerably stable. Fluctuations are attributed to the sizes of the graduating classes of the College’s main feeder schools, which are two Orthodox high schools for girls in Baltimore (Bais Yaakov School for Girls and Bnos Yisroel of Baltimore). In addition, Maryland has the fifth largest number of students attending Jewish day schools.⁵ Bais Yaakov of Baltimore, alone, has a current enrollment (academic year 2018-2019) of 1450+ students. In addition, Bnos Yisroel, another local Jewish day school for girls, and Yeshiva High in Silver Spring, MD each has strong enrollments. Importantly, each of the feeder schools has recently expanded STEM programs. As a result, WITS anticipates growing interest in STEM fields, including computer science, among future students.

⁴ <https://www.bls.gov/ooh/computer-and-information-technology/computer-and-information-research-scientists.htm>

⁵ Shick, M., Census of Jewish Day Schools in the United States: 2013-2014. Avi Chai Foundation.

D. Reasonableness of Program Duplication

- 1. Identify similar programs in the State and/or same geographical area. Discuss similarities and differences between the proposed program and others in the same degree to be awarded.**

While most, if not all, Maryland institutions offer an undergraduate program in computer science, those institutions do not serve the targeted WITS population. As with all WITS offerings, this proposed program will serve a niche population and will not be marketed to prospective students beyond the targeted student population (e.g., Orthodox Jewish women). WITS anticipates a student enrollment in the program of no more than 10 students, all of which will be Orthodox Jewish women.

- 2. Provide justification for the proposed program.**

If approved, the proposed Bachelor of Arts in Computer Science program will provide WITS students with the option to pursue a degree and career in the computer science field. As previously described, WITS has long offered the courses necessary to comprise the full program. At the present time, however, students must transfer the credits earned from WITS to partner schools in order to earn the degree from a regionally accredited institution.

In a separate initiative, WITS is pursuing candidacy for regional accreditation with the Middle States Commission on Higher Education. Once approved, WITS will be able to make regionally accredited degrees available to students who prefer to graduate from WITS. This proposal for approval of the Bachelor of Arts in Computer Science program is integral to the plan to become regionally accredited and expand the availability of degree programs offered by WITS.

E. Relevance to High-demand Programs at Historically Black Institutions (HBIs)

- 1. Discuss the program's potential impact on the implementation or maintenance of high-demand programs at HBI's.**

Each of Maryland's Historically Black Institutions (i.e., Bowie State University, Coppin State University, Morgan State University, and University of Maryland Eastern Shore) offers a Bachelor of Science in Computer Science program. However, given that the student population of WITS is specific to Orthodox Jewish women, approval of the WITS program will, in no way, present any competition with or impact to Maryland's Historically Black Institutions. WITS maintains that approval of a Bachelor of Arts in Computer Science will not constitute any impact on the existing programs at Bowie State University,

Coppin State University, Morgan State University, University of Maryland Eastern Shore, or any other Maryland institution.

F. Relevance to the identity of Historically Black Institutions (HBIs)

1. Discuss the program's potential impact on the uniqueness and institutional identities and missions of HBIs.

N/A – The proposed Bachelor of Arts in Computer Science will not have any impact on the identity or missions of Maryland's Historically Black Institutions.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes (as outlined in COMAR 13B.02.03.10)

1. Describe how the proposed program was established, and also describe the faculty who will oversee the program.

The proposed Bachelor of Arts in Computer Science was designed by the WITS Curriculum Committee, which is composed of the Academic Dean and selected faculty with experience in the field. Development of the curriculum was preceded by thorough discussions with the WITS Board of Directors regarding the program structure and the desire to offer an approved program (rather than through transfer).

Given the small size of the institution, WITS does not utilize a structure of Program Chairs or Departmental Coordinators to oversee programs. Rather, the Academic Dean coordinates and oversees the implementation of all programs, which will include this proposed Bachelor of Arts in Computer Science.

2. Describe educational objectives and learning outcomes appropriate to the rigor, breadth, and (modality) of the program.

The proposed Bachelor of Arts degree in Computer Science is designed for students who seek a liberal arts education and high-level Jewish Studies coursework, combined with a solid foundation in computer science. A bachelor of arts will lend itself more to allowing students to double major. The program design will allow students to choose complementary liberal arts electives in an area of their interest to complete the program.

The learning outcomes for the proposed Bachelor of Arts degree in Computer Science are designed to ensure graduates are prepared for positions as computer science professionals in business, industry, or government, as well as for graduate study in computer science. The specific learning outcomes are articulated in the following chart.

Learning Outcomes: Bachelor of Arts in Computer Science
Upon completion of the Bachelor of Arts in Computer Science, graduates will demonstrate the ability to:
<ul style="list-style-type: none"> a) Apply an understanding of major concepts, theoretical perspectives, empirical findings, and historical trends to the resolution of real computer science problems. b) Apply algorithmic, mathematical, and scientific reasoning to a variety of computational problems. c) Implement software systems that meet specified design and performance requirements. d) Use critical and creative thinking skills to analyze and solve computational problems. e) Work effectively with technical and non-technical team members, clients, and customers, while meeting the social and ethical responsibilities of the computer science profession. f) Exhibit intercultural competence and attention to diversity, within and beyond the Jewish community, in addressing civic, social, environmental, and economic issues of the computer science field. g) Use effective oral and written communication skills to present ideas and document work.

3. Explain how the institution will: a) provide for assessment of student achievement of learning outcomes in the program and b) document student achievement of learning outcomes in the program.

All WITS programs are founded on the assessment practices that aim to demonstrate levels of student learning. Learning assessment is based on criterion-based rubrics and other direct measures of learning that align with the program outcomes and curricula. Each undergraduate program collects data on an ongoing basis. Data are analyzed and documented, and results are used for course and program improvement. Assessment processes use both direct and indirect measures to assess learning and/or student achievement. Direct assessment tools include content-specific exams, pre/post tests, projects, portfolios, criteria-based or skill-based rubrics, and/or other mechanisms that directly show learning or skills gained. Indirect measures assess perceptions and/or opinions about learning, performance, or services, such as student course evaluations, surveys, etc.

4. Provide a list of courses with title, semester credit hours and course descriptions, along with a description of program requirements.

The proposed Bachelor of Arts in Computer Science is comprised of 120 credits. The 120 credits encompass 60 general education credits, 36 major (content) credits, and 24 program elective credits. To satisfy residency requirements, a minimum of 30 credits, to include 15 credits of upper-level coursework, must be completed at WITS. The proposed program, like all WITS degree programs, requires 36 credits of Judaic studies, which are completed within the general

education and elective requirements. To obtain the proposed Bachelor of Arts in Computer Science degree, students must earn a minimum grade point average of 2.5 for all content coursework, as well as a minimum overall grade point average of 2.0. The program of study is provided in the following chart.

Major Requirements (36 credits)		
CIS 213 Computer Programming I	3 credits	Introduces programming concepts using the Java SE programming language and demonstrate how to approach a problem and design an elegant, object-oriented software solution. <i>Prerequisite: None</i>
CIS 241 Data Structures	3 credits	Discusses the important data structures, both within programs and external to programs, as well as important algorithms that utilize these data structures. Explains how computer programs depend on algorithms and data structures. <i>Prerequisite: CIS 213</i>
CIS 311 Database Management Systems	3 credits	Covers basic database concepts and definitions. Topics include: logical organization of a database, database architecture, data normalization, data modeling, database integrity and the client/server environment. Teaches use of MS Access 2010 using ADO and DAO, query processing and transaction processing through SQL, a query language. <i>Prerequisite: One computer science course or permission of Academic Dean</i>
CIS 315 Computer Programming II	3 credits	Focuses on object-oriented programming concepts using the Java SE and Java EE programming language and demonstrates how to approach a problem and design an elegant, object-oriented software solution. Introduces programming for the World Wide Web using HTML/CSS and Java Enterprise Edition (EE) technologies. <i>Prerequisite: CIS 213</i>
CIS 330 Computer Systems Architecture	3 credits	Covers the major architectural components of the computer, and the role of the operating system. The course will also use assembly language programming to show how the various components of the architecture function and interact with each other. As part of the architecture, logical circuit design and computer arithmetic will be covered. <i>Prerequisite or co-requisite: One Programming Language (CIS 204, CIS 231, or CIS 351)</i>
CIS 490 Senior Seminar in Computer Science	3 credits	Builds upon a student's knowledge and computer programming skills through a guided independent research seminar. Students select an area of interest within the field of Computer Science and engage in an independent research project resulting in an original project or program that can be a part of student's portfolio. The seminar further prepares students for entering the professional world in high tech fields. <i>Prerequisite: Senior standing in the major or permission of Academic Dean</i>
Mathematics	9 credits	9 credits of advanced mathematics geared to computer science

Major Electives	9 credits	9 credits chosen from the following:
		<p>CIS 231 Assembly Language 3 credits Teaches the very basics and foundation of computer languages. Topics include: binary and hexadecimal representation of data, computer organization and addressing techniques, basic fetch-code-execute instruction and exposure to assembly language code. <i>Prerequisite: None</i></p>
		<p>CIS 204 Programming in Python 3 credits Introduces programming and problem solving using Python. Emphasizes principles of software development, creating algorithms and testing. Topics include procedures and functions, iteration, lists, dictionaries, strings, function calls. Weekly assignments and final program help students learn how to solve problems by creating programs. <i>Prerequisite: None</i></p>
		<p>CIS 351 Programming Languages 3 credits Introduces concepts of programming language design and implementation through formal definition of a language's specification of syntax and semantics. The students learn to compare the programming elements of various languages with specific emphasis on Perl, for the imperative language paradigm, and Java for the object-oriented language paradigm. <i>Prerequisite: CIS 213</i></p>
		<p>CIS 355 Computer Systems, Networks and Information Technology 3 credits Provides a general overview of information technologies that enable the student to fully engage as a knowledge worker that uses and interacts with computer systems, networks, and information technologies that are used in today's business environment. Topics include digital information systems, hardware and software, operating systems, the Internet, data communications, systems, development life cycle, and information security. The goal is to help students achieve a level of technological fluency essential for information professionals across a variety of specific career interests. <i>Prerequisite: Prior programming experience or permission of Academic Dean</i></p>

		<p>CIS 365 Web Programming 3 credits Introduces students to the current standard of HTML. Students will learn the basics of CSS for the design and layout of their webpages as well as the basics of client side scripting through JavaScript and server side scripting through PHP. Topics include databases for websites and the use of SQL to connect to the databases. <i>Prerequisite: CIS 204 or CIS 213 or permission of Academic Dean</i></p>
		<p>CIS 497-498-499 Internship in Computer Science 1-3 credits Provides an opportunity for students to explore the field of computer science. The goal is for students to see the work environment that they envision working in, while gaining insight into that profession by working closely with a mentor. Students are required to do 45 hours per credit at their placement and write weekly reflections of their experience. <i>Prerequisite: Junior or senior level standing or permission of Academic Dean</i></p>
Free Electives (24 credits)		
Free Electives	24 credits	Any credit bearing courses not already completed
General Education (60 credits)		
Students complete 60 credits to fulfill the general education requirements. Students in the Bachelor of Arts in Computer Science must choose STA 201 (Introduction to Statistics) to satisfy the general education mathematics requirement.		

5. Discuss how general education requirements will be met, if applicable.

As with all WITS programs, the general education requirements for the proposed Bachelor of Arts in Computer Science meet or exceed COMAR specifications. The general education requirements are detailed in the following chart.

General Education Program (60 credits)		
Subject	Credits	Courses
English/Rhetoric	6 credits	ENG 101 English Composition I
		ENG 102 English Composition II or any advanced English composition or COM 101 Fundamentals of Communication
Humanities	12 credits	Chosen from any college-level course in Jewish Studies, language, literature, music, or art
History and Social Sciences	6 credits	Chosen from any college-level course in history, economics, psychology, or sociology
Mathematics	3 credits	Chosen from any college-level math course
Natural Sciences	3 credits	Chosen from any college-level natural sciences course
Technology	3 credits	Chosen from any college-level technology course
Diversity	3 credits	Chosen from the following: JST 478 Feminism and Jewish Perspectives of Women HIS 350 Food and Culture PSY 397 Group Dynamics PSY 370 Social Psychology HIS 340 Women in Jewish History and Culture JST 415 Women in the World
Electives	24 credits	Chosen from all college-level courses
	60 credits	

6 Identify any specialized accreditation or graduate certification requirements for this program and its students.

Given that the proposed program is a bachelor of arts (and not a bachelor of science), the program will not require the coursework in mathematics and theoretical computer science necessary to satisfy specialized accreditation with the Accreditation Board for Engineering and Technology (ABET). Thus, WITS has no intention to pursue specialized accreditation or graduate certification for the program.

7. If contracting with another institution or non-collegiate organization, provide a copy of the written contract.

N/A – WITS will not contract with another institution or non-collegiate organization for matters pertaining to the implementation of this program.

8. Provide assurance and any appropriate evidence that the proposed program will provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

All degree requirements will be listed in the catalog and on the website. As with all WITS programs, each student in the program will be assigned an academic advisor. Students and advisors will design individualized program plans tailored to the major. The individualized program plans will identify the courses to be taken and provide a path toward graduation. Students and advisors will meet before every semester to review individualized program plans, make changes (if necessary), and discuss registration for the coming semester.

Students who enroll in the program will have access to all resources necessary to succeed in the program. WITS has a dedicated computer lab with high-speed internet access. The lab contains sufficient computers (14) to meet the anticipated enrollment in the program. All computers are loaded with the necessary and required software programs.

The program will not be delivered in an online modality. However, all students will have access to the learning management system (Moodle) in order to participate in all elements of any program course.

To assist WITS students in need of academic support, faculty and administration work together to resolve impediments to the learning process. This includes providing students with guidance in areas such as study habits, learning practices, academic writing, and tutoring. WITS also has a process for referring students for professional services, such as mental health services or personal counseling, when necessary. For verified disabilities, faculty and administration work with students to develop a plan to maximize success. WITS requires documentation from these students and considers the results of educational testing, IEPs, and 504 plans when determining accommodations. Examples of accommodations include extended time, extended deadlines, oral testing, using a laptop for exams, translating tests from Hebrew to English, and taking an exam in a separate room. All accommodations, concerns, and related recommendations are documented.

Financial aid information is available on the WITS website and in recruitment materials. Information is specifically provided about the following:

- Federal Pell Grants
- Maryland State Scholarships
- Institutional Financial Need Scholarship (application required)
- External Scholarships

A Financial Aid Administrator is available on campus to respond to questions about financial aid.

In regard to institutional scholarships, students must complete an application that includes tax information, income information, and information on prior scholarships. The Scholarship Committee reviews the application and makes decisions commensurate with the provided information.

Payment information for all WITS programs/courses is provided on the website, in the Student Handbook, and in the Academic Catalog. The Bursar is available to answer questions about payment and arrange payment plans.

9. Provide assurance and any appropriate evidence that advertising, recruiting, and admissions materials will clearly and accurately represent the proposed program and the services available.

Throughout WITS' recruitment and enrollment processes for all programs, prospective students receive clear and accurate information about academic support, costs/fees, payment policies, financial aid resources, and technology resources. If approved, all marketing and recruitment materials for the proposed Bachelor of Arts in Computer Science, including print and online materials, will clearly and accurately describe the program and provide details related to all requirements and available services.

H. Adequacy of Articulation

1. If applicable, discuss how the program supports articulation with programs at partner institutions. Provide all relevant articulation agreements.

N/A – There are no articulation agreements for the proposed program.

I. Adequacy of Faculty Resources (as outlined in COMAR 13B.02.03.11).

- 1. Provide a brief narrative demonstrating the quality of program faculty. Include a summary list of faculty with appointment type, terminal degree title and field, academic title/rank, status (full-time, part-time, adjunct) and the course(s) each faculty member will teach (in this program).**

Faculty with significant experience, training, and education in the field of computer science will support the proposed program. The credentials for the faculty currently slated to teach in the proposed program are identified in the following chart.

Program Faculty				
Name	Status	Began with WITS	Degree and Field	Courses
Ephraim Eisenberger	Part-Time	2004	MS Mathematics/Systems of Management, University of Southern California; MS Physics, New York University	MAT 231; MAT 232; MAT 320
Elazar Feigenbaum	Part-Time	2013	MS Computer Science, Johns Hopkins University	CIS 213; CIS 315; CIS 351
Jerrold Rosenbaum	Part-Time	2012	EngScD Computer Science, Columbia University	CIS 231; CIS 330; CIS 241 CIS 490
Sarena Schwartz	Part-Time	2010	MA Advanced Information Technology, Stevenson University	CIS 311; CIS 204; CIS 365, CIS 497-498-499
Danny Harris	Part-Time	2018	BS, Geological Sciences, Penn State University; MA coursework in Computer Science, Queens College	CIS 355

In addition to the faculty who will teach the content coursework in the Bachelor of Arts in Computer Science (shown above), WITS has a highly qualified roster of faculty who teach general education coursework.

- 2. Demonstrate how the institution will provide ongoing pedagogy training for faculty in evidenced-based best practices, including training in: a) pedagogy that meets the needs of the students, b) the learning management system, and c) evidenced-based best practices for distance education, if distance education is offered.**

Faculty members have access to a variety of professional development and pedagogical training opportunities. Faculty are encouraged to attend conferences in the field and institutional support is available. In addition, WITS faculty participates in education conferences sponsored by the Center for Jewish Education and Shemesh, an educational support organization for Jewish youth with learning differences. Faculty are eligible to attend the conferences at no charge.

Faculty are observed by the Academic Dean and/or the Liberal Arts Department Chair who provides feedback and additional support.

Although WITS does not offer distance learning programs, all faculty receive training on the learning management system (Moodle). Faculty are given access to Moodle 101, an online training developed by eThink Education, which trains faculty in the use of Moodle. The training has structured modules and videos to help faculty utilize the many features of the learning management system.

J. Adequacy of Library Resources (as outlined in COMAR 13B.02.03.12)

- 1. Describe the library resources available and/or the measures to be taken to ensure resources are adequate to support the proposed program.**

The Snyderman-Klein Library provides a valuable collection of Judaic studies and secular reference materials. Available resources include Biblical literature, rabbinic literature, commentaries, and historical references. The library also contains Jewish philosophical works; Jewish Code of Law books with accompanying interpretations and commentators; Talmudic and Midrashic sources and reference guides to Biblical and Talmudic sources. In addition to hardcopies, the library provides a comprehensive, digital collection of Judaic books (Bar Ilan software), as well as a selection of popular Judaic works and novels. Each year the library is expanded with additional texts.

Relevant to library resources required for the proposed program, WITS has conducted an assessment of resources needed to support program needs and confirmed that the institutional library meets the needs for supporting the Bachelor of Arts in Computer Science. The assessment determined that the College has sufficient resources to support the program. As just a few examples, available journals include the following:

- Journal of the Association for Information Science & Technology
- Journal of Computer & System Sciences
- Communications of the ACM
- Theoretical Computer Science
- Journal of the American Society for Information Science & Technology
- Journal of Foundations of Computer Science

The library also subscribes to the Maryland Digital Library, which utilizes the EBSCO Host Research Databases (<http://search.ebscohost.com>). The database includes the following research resources:

- Academic Search Premier
- Business Source Premier
- ERIC, the Education Resource Information Center
- Funk & Wagnalls New World Encyclopedia
- GreenFILE
- Health Source: Consumer Edition
- Health Source: Nursing/Academic Edition
- Library, Information Science & Technology Abstracts
- MAS Ultra - School Edition
- MasterFILE Premier
- MEDLINE
- Military & Government Collection
- Primary Search
- Regional Business News
- Teacher Reference Center

K. Adequacy of Physical Facilities, Infrastructure and Instructional Equipment (as outlined in COMAR 13B.02.03.13)

- 1. Provide an assurance that physical facilities, infrastructure and instruction equipment are adequate to initiate the program, particularly as related to spaces for classrooms, staff and faculty offices, and laboratories for studies in the technologies and sciences.**

The proposed Bachelor of Arts in Computer Science will be delivered on the WITS campus, which is located at 6602 Park Heights Avenue in Baltimore. The College has appropriate physical facilities, infrastructure, and instructional equipment to support the needs of the program. The learning space includes five classrooms (with capacity ranging from 20-70 students) and one computer lab on the second floor. WITS has also begun to utilize two additional classrooms on the lower level as science labs. Future plans involve the renovation of the lower level into state-of-the-art laboratory facilities. Administrative and office space is provided for the leadership team on the second floor. The second floor also

provides a student lounge with a dining area and houses the Snyderman-Klein Library.

Each classroom has a computer connected to a projector. Computers are available for student use in the student lounge (four), library (three), and computer lab (14). An APA template is installed on each computer to provide guidance for research paper writing.

Importantly, the computer lab is dedicated for use by students studying computer science, graphic design, web design, and computer applications. Courses in those disciplines are taught in the lab and students use the lab computers to complete course assignments. Specialized software required for certain courses, such as Adobe Creative Cloud, has been installed throughout the computer lab. The lab computers are Dell OptiPlex business grade with i5 processor and 8 GB RAM.

As a member of the Maryland Education Enterprise Consortium (MEEC), WITS can acquire education-related hardware and software needed to ensure the availability of up-to-date technological resources. All computers in the lab have been replaced within the last seven years and currently run the most recent Windows software (Windows 10). An Informational Technology Technician is on call to resolve technical problems as they arise.

The entire campus is hardwired with high speed internet and wireless internet. Institution-owned and student laptops can connect to the network via password protected wifi. The network is secure to prevent unapproved access. All computers have virus protection, as well as special filters, which prevent inappropriate internet use. The office computers have a daily back up system that protects files. All office staff and administrators can access the network remotely using gotomypc.

- 2. Provide assurance and any appropriate evidence that the institution will ensure students enrolled in and faculty teaching in distance education will have adequate access to a) An institutional electronic mailing system, and b) a learning management system that provides the necessary technological support for distance education**

N/A – Although the proposed program is not a distance learning program, all students and faculty will have access to the learning management system (Moodle) for any online elements of any courses. All students and faculty in the proposed program will have access to the institutional email system.

L. Adequacy of Financial Resources with Documentation (as outlined in COMAR 13B.02.03.14)

- 1. Table 1: Resources and Narrative Rationale. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each resource category. If resources have been or will be reallocated to support the proposed program, briefly discuss the sources of those funds.**

Resource-related finance data are provided in Table 1. The narrative explanation for each category in Table 1 is as follows:

1. As the courses are already being offered, faculty already engaged, and computer lab already set up, there is no need to reallocate new or additional funds for the proposed program.
2. Calculations for tuition/fees for Year 1 are based on current rates. Calculations for Year 2 are estimated based on tuition rates for the following year. For Years 3, 4, and 5, WITS assumes a 2% increase in tuition. WITS assumes there will be no increase in registration, technology, or lab fees.
3. At this time, there are no grants, contracts, or external source funding for the proposed program.
4. At this time, there are no sources of additional funds earmarked for the proposed program.

Resource Categories		Year 1	Year 2	Year 3	Year 4	Year 5
1	Reallocated Funds	0	0	0	0	0
2	Tuition/Fee Revenue (c + g below)	60,540.00	92,550.00	94,320.00	128,160.00	130,600.00
a	Number of F/T Students	4	6	6	8	8
b	Annual Tuition Fee Rate	15,135.00	15,425.00	15,720.00	16,020.00	16,325.00
c	Total F/T Revenue (a x b)	60,540.00	92,550.00	94,320.00	128,160.00	130,600.00
d	Number of P/T Students	0	0	0	0	0
e	Credit Hour Rate	264.00	276.00	282.00	287.00	292.00
f	Annual Credit Hour Rate	0	0	0	0	0
g	Total P/T Revenue (d x e x f)	0	0	0	0	0
3	Grants, Contracts & Other External Sources	0	0	0	0	0
4	Other Sources	0	0	0	0	0
TOTAL (Add 1 - 4)		60,540.00	92,550.00	94,320.00	128,160.00	130,600.00

2. Table 2: Program Expenditures and Narrative. Provide finance data for the first five years of program implementation. Enter figures into each cell and provide a total for each year. Also provide a narrative rationale for each expenditure category.

Program expenditure data are provided in Table 2. The narrative explanation for each category in Table 2 is as follows:

1. Faculty salaries for Year 1 were determined using WITS' current pay scale. Subsequent years assume a 2% increase per year.
2. There are no additional administrators being hired in conjunction with the proposed program.
3. There are no additional support staff members being hired in conjunction with the proposed program.
4. The calculation for Year 1 was determined using actual technical support and equipment expenses for the 2018-2019 year. Subsequent years assume a 2% increase per year.
5. The calculation for Year 1 was determined using actual library expenses for the 2018-2019 year. Subsequent years assume a 2% increase per year.
6. As the computer lab already exists, there are no new or renovated space expenses expected.
7. There are no additional expenses expected in the administration of the proposed program.

Table 2: Program Expenditures						
Expenditure Categories		Year 1	Year 2	Year 3	Year 4	Year 5
1	Faculty (b + c below)	26,000.00	26,520.00	27,050.40	27,591.41	28,143.24
a	Number of FTE	0	0	0	0	0
b	Total Salary	26,000.00	26,520.00	27,050.40	27,591.41	28,143.24
c	Total Benefits	0	0	0	0	0
2	Admin Staff b + c below)	0	0	0	0	0
a	Number of FTE	0	0	0	0	0
b	Total Salary	0	0	0	0	0
c	Total Benefits	0	0	0	0	0
3	Support Staff b + c below)	0	0	0	0	0
a	Number of FTE	0	0	0	0	0
b	Total Salary	0	0	0	0	0
c	Total Benefits	0	0	0	0	0
4	Technical Support and Equipment	1,900.00	1,938.00	1,976.76	2,016.30	2,056.62
5	Library	4,170.00	4,253.40	4,338.47	4,425.24	4,513.74
6	New or Renovated Space	0	0	0	0	0
7	Other Expenses	0	0	0	0	0
TOTAL (Add 1 - 7)		32,070.00	32,711.40	33,365.63	34,032.95	34,713.60

M. Adequacy of Provisions for Evaluation of Program (as outlined in COMAR 13B.02.03.15)
--

1. Discuss procedures for evaluating courses, faculty and student learning outcomes.

Evaluation of Programs/Courses

Periodically, all curricula are formally reviewed and compared with relevant higher education institutions. The reviews are intended to validate program currency, and assure relevance of requirements to admission requirements for graduate programs. As applicable, faculty provide input on program matters and participate in committees that evaluate content.

Learning objectives are clearly noted in the syllabus of each course. Faculty are provided a standardized syllabus template and instructions that includes all of the elements required to be contained in a syllabus. Faculty are asked to supply the topic outline/schedule; grading policy that specifies all graded course assessments and how assessments correlate to learning objectives; and course policies related to attendance, late work, and class decorum. Before the start of each semester, faculty submit their syllabi to the Academic Dean, who evaluates each syllabus for accuracy, academic level, and appropriate course content.

Evaluation of Faculty

Over the course of a semester, the Academic Dean and/or Liberal Arts Department Chair observe and evaluate faculty. While all faculty members are informally observed on an annual basis, a formal, detailed, and written evaluation is conducted on a rotating basis, approximately once every three years. All new faculty members are formally observed during their first semester.

At the end of each semester, every faculty member completes a self-evaluation. The self-evaluation requires faculty to reflect upon their own performance and determine how they could improve a course in future semesters.

Student Evaluations of Courses and Instruction

Students complete course evaluations for all courses with the exception of Jewish Studies courses. Course evaluations are not done for Jewish Studies courses out of respect for the religious faculty.

On course evaluations, students provide input and feedback on how to strengthen the course and instruction to better meet their academic and professional goals. The Academic Dean shares written reports of the student course evaluations with the faculty member.

Evaluations of Student Learning Outcomes

All courses within WITS programs are guided by course learning objectives that have been aligned with overall program learning goals. The alignment of the course content (course learning objectives) with overall program learning expectations is accomplished through the development of curriculum maps. Curriculum maps demonstrate where content is introduced at varying levels.

To assess achievement of the course learning objectives, faculty use both direct and indirect assessment measures. Results show where students have achieved mastery, demonstrated proficiency, or need improvement. Results are used for course and program improvement.

2. Explain how the institution will evaluate the proposed program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

As stated previously, each faculty member completes course assessments that are designed to improve course content and, ultimately student learning. Course assessments are completed at the end of each semester. As part of the process, faculty determine the percentage of students who achieved mastery, proficiency, or need improvement.

Direct measures assess learning and/or student achievement through demonstration of specific knowledge, skills, or services. Direct assessment tools include content-specific exams, pre/post tests, projects, portfolios, criteria-based or skill-based rubrics, and/or other mechanisms that directly show learning or skills gained. Indirect measures assess perceptions and/or opinions about learning, performance, or services, such as student course evaluations, surveys, etc. To assess institutional effectiveness, assessment practices also emphasize the collection of raw data that directly verify enrollment, retention, allocation of resources, and levels of satisfaction.

N. Consistency with the State's Minority Student Achievement Goals (as outlined in COMAR 13B.02.03.05)

- 1. Discuss how the proposed program addresses minority student access & success, and the institution's cultural diversity goals and initiatives.**

The proposed Bachelor of Arts in Computer Science will address the professional growth and success of Jewish women and provide an opportunity to pursue a profession in the growing field of technology. The program will encourage and support Jewish women as they move into careers in technology, where women are a vastly underrepresented population.

O. Relationship to Low Productivity Programs Identified by the Commission

- 1. If the proposed program is directly related to an identified low productivity program, discuss how the fiscal resources (including faculty, administration, library resources and general operating expenses) may be redistributed to this program.**

N/A – The proposed program is not directly related to an identified low productivity program.

P. Adequacy of Distance Education Programs (as outlined in COMAR 13B.02.03.22)

- 1. Provide affirmation and any appropriate evidence that the institution is eligible to provide Distance Education.**

N/A – The proposed program will not be offered via distance education.

- 2. Provide assurance and any appropriate evidence that the institution complies with the C-RAC guidelines, particularly as it relates to the proposed program.**

N/A – The proposed program will not be offered via distance education.