



## Overview

JMU Plan is a desktop application that is intended to replace two existing paper forms, the “Plan of Study” and the “Graduation Checklist”, which look something like the following.

### Sample Plan of Study for New Students

#### Option C - Core Early

	Fall	Spring
Year 1	CS 139/149 MATH 231/235 GenEd GenEd GenEd	CS 159 Math 232/236 CS/MATH 227 GenEd GenEd
Year 2	CS 240 CS 261 MATH 220/318 GenEd GenEd	CS 327 CS 361 GenEd GenEd Elective
Year 3	CS 260 CS 345 CS 4xxS (CS System Elective) GenEd Elective	CS 430 CS 474 Elective Elective Elective
Year 4	CS 4xx (CS Elective) CS 4xx (CS Elective) GenEd Elective Elective	CS 4xx (CS Elective) GenEd Elective Elective Elective

#### Computer Science Degree Requirements Checklist Catalog Year 2018-2019

Fill out this form and attach it along with an unofficial copy of your transcript to your Application to Graduate. After getting signatures for all minors, submit this package to your advisor for his or her signature, and then to the Undergraduate Program Director. If credit for a course is transferred in, write "transfer" under "Term/Year".

Required Courses	Term/Year	
CS 149 Programming Fundamentals	_____	
CS 159 Advanced Programming	_____	
CS/MATH 227 or MATH 245 Discrete Structures I	_____	
CS 240 Algorithms and Data Structures	_____	
CS 260 Technical Writing for Computer Science	_____	
CS 261 Computer Systems I	_____	
CS 327 Discrete Structures II	_____	
CS 345 Software Engineering	_____	
CS 361 Computer Systems II	_____	
CS 430 Programming Languages	_____	
CS 474 Database Design and Application	_____	
Statistics: MATH 220 or MATH 318	_____	
Calculus: MATH 235 or MATH 231/232	_____	
Elective Courses	Course	Term/Year
Systems Elective: CS 432, CS 450, CS 456, or CS 470	_____	_____
CS xxx CS Elective 1 (above CS 300)	_____	_____
CS xxx CS Elective 2 (above CS 300)	_____	_____
CS xxx CS Elective 3 (above CS 300)	_____	_____

Plan is intended to be used for one set of requirements at a time. So, though a student may have multiple majors/minors and may need to satisfy university requirements and/or degree requirements, each would involve it's own “instance” of Plan.



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## Typical Workflow

When a program of study (e.g., a major, minor) is designed (or modified), the administrator for that program will create a supporting document that lists all of the requirements for the program. The administrator will also name the supporting document (e.g., with the name of the program and the catalog year).

When a course is designed (or modified), the administrator for the relevant Department will create a supporting document that contains list of prerequisites/corequisites for that course.

When a term is planned, the administrator for the relevant Department will create a supporting document that contains a list of all of the planned course offerings.

When a term is scheduled, the administrator for the relevant Department will create a supporting document that lists of all of the course offerings. The administrator may also need to import this information from Schedule. Note that the actual offerings may differ from the planned offerings.

When planning, a student will create an instance document that contains the courses that they intend to take and when they intend to take them. The student may need to export this information to Track. The system will ensure that the timing is consistent with the planned offerings and that the prerequisites/corequisites are satisfied. The constraints may be checked by preventing the student from entering invalid information or by validating the information after it is entered.

When completing a semester, the student will enter the courses that they actually completed that semester into an instance document. The student may need to import this information from Track. The system will ensure that the courses were actually offered that semester.



## Administrator Needs

As an administrator I need to...

### Related to Supporting Documents

- A1. Describe an academic calendar.
  - A1.1. Describe “regular” terms (e.g., semesters, trimesters, quarters).
  - A1.2. Describe “irregular” terms (e.g., summer sessions, winter sessions).
  - A1.3. Order/organize terms.
- A2. Save an academic calendar.
- A3. Open an academic calendar.
- A4. Describe actual course offerings for specific terms (e.g., so that the system can check the correctness of a “Graduation Checklist”).
  - A4.1. Save actual course offerings by term.
  - A4.2. Open actual course offerings by term.
    - A4.2.1. Open a single term.
    - A4.2.2. Open multiple terms.
- A5. Describe intended course offerings for specific terms (e.g., so that the system can check the reasonableness of a “Plan of Study”).
  - A5.1. Save intended course offerings by term.
  - A5.2. Open actual course offerings by term.
    - A5.3. Open a single term.
    - A5.4. Open multiple terms.



- A6. Describe course requisites (e.g., so that the system can ensure that a “Plan of Study” is feasible) for a specific catalog year.
  - A6.1. Describe strong prerequisites (i.e., courses that must be completed before a target course).
    - A6.1.1. Describe alternative strong prerequisites (i.e., multiple courses that might satisfy the constraint).
  - A6.2. Describe weak prerequisites (i.e., courses that must be completed before or taken at the same time as a target course).
    - A6.2.1. Describe alternative weak prerequisites.
  - A6.3. Describe corequisites (i.e., courses that must be taken at the same time).
    - A6.3.1. Describe alternative corequisites.
- A7. Save course requisites.
- A8. Open course requisites.
- A9. Describe the relevant (e.g., major, minor, degree, university) requirements for a specific catalog year (e.g., so that the system can ensure that a “Graduation Checklist” is correct).
  - A9.1. Describe alternative requirements (i.e., multiple courses that might satisfy the constraint).
- A10. Save requirements.
- A11. Open requirements.

## Faculty Needs

As a member of the faculty I need to...

### Related to Instances



- F1. Act like a student so that I can help students during advising sessions.

## Student Needs

As a student I need to...

### Related to Instances

- S1. Specify the courses I plan to take by year and semester.
- S2. Specify the courses I actually took by year and semester.
- S3. Open course prerequisites.
  - S3.1. Open course requisites for a particular catalog year.
  - S3.2. Open course requisites for multiple catalog years.
  - S3.3. Open course requisites for all relevant years (based on the semesters in the plan).
- S4. Open requirements for a particular catalog year.
- S5. Open course offerings.
  - S5.1. Open course offerings for a particular term.
  - S5.2. Open course offerings for multiple terms.
- S6. Save a complete plan containing all relevant information.
- S7. Open a complete plan.
- S8. Edit the planned courses.
- S9. Edit the actual courses.
- S10. Export information for use in Track.



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- S11. Print a “Plan of Study”.
  - S12. Print a “Graduation Checklist”.