Computer Science, Graduate Admission Requirements

Admission Requirements

Applicants must meet the general graduate admission requirements of the Graduate School, described in the UMSL Bulletin. Students are considered for admission to the graduate program in Computer Science only after they have formally applied for admission through the Graduate School. Applications are completed on-line. Additional requirements are listed below.

Applicants apply through and must meet the Graduate School requirements plus the following additional departmental GPA and foundation requirements. Those admitted, for whom we could not determine some foundations or with GPA deficiencies, can be admitted with restrictions - see the restrictions section.

Applicants with relevant full-time training and/or experience can apply for up to 6 proficiency transfer credits toward the degree in CMP SCI 5991 regardless of their undergraduate degree.

GPA

Applicants must have a minimum of a 3.0 (out of 4.0) GPA to be considered for admission. This can be an undergraduate GPA or some later GPA. Applicants with a GPA of 2.75-2.99 will be considered but must provide additional evidence, which can be a combination of GRE, reference letters, and/or relevant experience and should all be presented in the Statement of Intent. Applicants below 2.75 will only be considered if supplemented by lengthy related experience, as demonstrated in the Statement of Intent.

Applicants must demonstrate significant proficiency in computer science by showing competence (demonstrating related academic or professional experience) in the following areas. Courses in parentheses are UMSL recommended undergraduate courses that would satisfy the requirements.

1. Programming skills in C or C++ and Java (CMP SCI 1250 or CMP SCI 2250, and CMP SCI 2261)
2. Proficiency with Object-Oriented concepts and terminology (CMP SCI 2261)
3. Proficiency with dynamic data structures (CMP SCI 2250)

Foundations

Applicants will be evaluated for proficiency in the following areas. This can be prior coursework on transcripts or non-academic training/relevant experience. Applicants are advised to refer to these items below and offer relevant information in the Statement of Intent.

Computer Science

1. At least two different modern general-purpose programming languages.
2. Object-oriented programming, concepts, and terminology
3. Basic dynamic data structures such as strings, lists, stacks, queues, and trees
4. Design and analysis of algorithms
5. Mathematical foundation for computer science (discrete structures) with topics such as sets, logic, functions, and relations

Mathematics

1. A calculus course
2. A probability and statistics course

Restrictions

An applicant missing or not adequately demonstrating in the Letter of Intent some of the above requirements may be admitted on restricted status. The GPA

restriction will be lifted after a successful semester. The foundation restrictions may be lifted after the applicant provides the graduate director evidence of proficiency which can be transcripts or additional non-academic training, or otherwise the admitted student will have to pass appropriate undergraduate courses to lift the remaining restrictions.

Justification for request:
Updated language.
Reduced/simplified admission requirements to attract wider audience.