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NEWS RELEASE

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ACM ISSUES CURRICULAR GUIDELINES FOR IT STUDENTS TRANSFERRING BETWEEN TWO- AND FOUR-YEAR COLLEGES

Information Technology Among the Fastest Growing Bachelor's Degrees

New York, NY, August 25, 2020 – The Association for Computing Machinery's Committee for Computing Education in Community Colleges (ACM CCECC) recently released guidelines to help community colleges prepare IT students who continue for Bachelor's degrees at four-year institutions. Their report, *Information Technology Transfer Curricula 2020: Curriculum Guidelines for Two-Year Transfer Programs in Information Technology* (IT-Transfer2020), builds on earlier ACM curricular efforts, was developed by an ACM task force comprised of faculty at two- and four-year institutions, and includes input from industry representatives with the overarching goal to ensure that IT graduates are "job ready" upon entering the workforce.

The projected growth of cloud computing, the prominence of data science applications, and the expanding need for information security bode well for the IT profession. For example, the US Bureau of Labor Statistics estimates that job openings in IT-related professions will grow by 12 percent by 2028.

Community colleges have been an important training ground for IT professionals for many years, with graduates often opting to enter the workforce directly after earning an Associate degree. In the introduction to the IT-Transfer2020 guidelines, the ACM IT Transfer Task Group notes that, in the United States alone, 40% of all undergraduates are enrolled in two-year colleges. Information Technology degrees generally require fewer mathematics courses than computer science degrees, and often attract a more diverse student body. IT programs at community colleges often include a stronger representation of underrepresented groups, as well as older students returning to the workforce or changing careers.

In the past 10 years the growth of students earning four-year Bachelor's degrees in Information Technology has grown considerably. As careers in Information Technology are both stable and lucrative, students have many options for IT training—from community and four-year colleges, to a wide range of

for-profit online academies and technical schools. The goal of ACM's curricular efforts in Information Technology is to ensure that students are receiving the core skills they need to advance their careers.

IT-Transfer2020 is based on an earlier curriculum, _Information Technology Curricula 2017: Curriculum Guidelines for Baccalaureate Degree Programs in Information Technology_ (IT2017), that was jointly developed by ACM and the IEEE Computer Society. The IT Transfer Task Group carefully analyzed the 80 competencies within broader domains (e.g., topic areas) that were outlined in IT2017 and constructed a modified subset of 27 essential and 31 supplemental competencies that student should achieve in an IT Transfer program.

"As with the earlier IT2017 set of Curricular Guidelines, ACM's (IT-Transfer2020) emphasizes the development of IT _competencies_," said Markus Geissler, chair of the IT Transfer Task Group and professor at Cosumnes River College. "By focusing on _competencies_, we emphasize not just what students _know_, but how they _demonstrate_ performance and how disposed they are to _apply_ what they know. This approach recognizes the importance of fundamental skills, while positioning students to adapt to new technological innovations that await them after graduation."

"The Information Technology profession, as well as degrees in IT, really began to take hold in the late 1990s and early 2000s, as the internet took off," explains CCECC Chair Cara Tang of Portland Community College. "In the early years, people associated IT with hardware, such as routers, modems and the physical tools that help connect people with the internet. But the IT profession has since grown to include software programming, cloud computing, cybersecurity, and a wide range of business applications related to computing. It is a field that offers many pathways and exciting career opportunities. As with many forms of professional training, a four-year degree opens even more doors. The goal of these curricular guidelines is to ensure that those earning Associate degrees have the necessary foundation to help them prosper in a Bachelor's degree program."

While transfer relationships between two- and four-year colleges are most common in the United States, the guidance outlined in IT-Transfer2020 can similarly be used in other countries to coordinate pathways that lead to Bachelor's degrees in the IT discipline. IT-Transfer2020 was designed to allow for sufficient flexibility to meet local requirements and needs.

About ACM
ACM, the Association for Computing Machinery, is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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