ISTE NETS Essential Conditions for Teacher Preparation

combination of essential conditions is required for teachers to create learning environments conducive to powerful uses of technology.

The most effective learning environments meld traditional approaches and new approaches to facilitate learning of relevant content while addressing individual needs. For these new learning environments to develop, certain prerequisite factors or essential conditions must be present in every phase of an aspiring teacher's education—in the university's general education programs, in the chosen major, in teacher preparation programs, and at the school sites hosting student teachers and interns. First-year teachers cannot be

classroom

teach

expected to put into practice what they have learned about how to use technology without the presence of these essential conditions in their new job environment. Policy decisions supporting technology use greatly affect a new teacher's ability to use technology effectively.

Because there are many avenues to becoming a teacher, this document addresses a wide variety of teacher preparation program designs. In the context of university-based programs, teacher education must be viewed as a university-wide responsibility. Prospective teachers must experience and observe effective uses of technology in their general education and major coursework. School and college of education coursework must consistently model exemplary pedagogy that integrates the use of technology for learning content

RATION SHARED VISION—There is proactive leadership and administrative support from the entire system University leaders share a vision for technology use in all appropriate courses The professional education administration and faculty share a vision for and content areas technology use to support new modes of teaching and learning. ACCESS-Educators have access to current technologies, software, and tele tions networks Access to current technologies, software, and telecommunications networks Access to current technologies, software, and telecommunications networks is is provided for all students and faculty both inside and outside the provided for teacher education faculty, classes, and field sites, including technology-enhanced classrooms that model environments for facilitating a variety of collaborative learning strategies. SKILLED EDUCATORS—Educators are skilled in the use of technology for learning Teacher education faculty are skilled in using technology systems and software appropriate to their subject area specialty and model effective use Faculty teaching general education and major courses are knowledgeable about and model appropriate use of technology in their disciplines as part of the coursework PROFESSIONAL DEVELOPMENT—Educators have consistent ac development in support of technology use in teaching and learning University faculty and students are provided with opportunities for Personnel in teacher education and field experience sites are provided with technology skill development and reward structures that recognize the ongoing professional development application of technology in teaching, learning, and faculty collaboration TECHNICAL ASSISTANCE—Educators have technical assistance for maintaining and using the technology Timely technical assistance is available for all faculty to ensure consistent Technical assistance for teacher education faculty and students is readily reliable functioning of technology resources. accessible and includes expertise in the use of technology resources for teaching and learning in PK-12 settings. CONTENT STANDARDS AND CURRICULUM RESOURCES-Educators are knowledge in their subject matter and current in the content standards an Technology-based curriculum resources that address subject matter content Prospective teachers have knowledge in the subject area(s) they intend to standards and support teaching, learning, and productivity are available to teacher candidates. STUDENT-CENTERED TEACHING—Teaching in all itered approaches to learning University faculty incorporate student-centered approaches to learning (e.g. Teacher education faculty and professional teaching staff model studentactive, cooperative, and project-based learning) centered approaches to instruction in education coursework and field experience ASSESSMENT—There is continuous as University faculty and support staff assess the effectiveness of technology Teacher education faculty and professional teaching staff model the for learning to examine educational outcomes and inform procurement. integration of teaching and assessment to measure the effectiveness of policy, and curriculum decisions. technology-supported teaching strategies. COMMUNITY SUPPORT—The community and school partners provide exper Prospective teachers experience technology use in real-world settings related Teacher preparation programs provide teacher candidates with opportunities to their general education and courses in their majors. to participate in field experiences at partner schools where technology integration is modeled n place to support technology in learning SUPPORT POLICIES—School and university policies, financing, and University faculty are provided with resources for meeting subject area Policies associated with accreditation, standards, budget allocations, and

personnel decisions in teacher education programs and field experience sites

support technology integration. Retention, tenure, promotion, and merit policies reward innovative uses of technology by faculty with their students.

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needs and with reward structures that recognize the application of

technology in teaching, learning, and faculty collaboration.

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with methods for working with PK–12 students. In school-based programs, candidates must continually observe and participate in the effective modeling of technology use for both their own learning and the teaching of their students. Technology must become an integral part of the teaching and learning process in every setting supporting the preparation of teachers.

The following elements are necessary to be in place at the university, the college or school of education, and the school site.

- Shared Vision
- Access
- Skilled Educators
- Professional Development
- Technical Assistance
- Content Standards and Curriculum Resources
- Student-Centered Teaching
- Assessment
- Community Support
- Support Policies

STUDENT TEACHING/ INTERNSHIP	F I R S T - Y E A R T E A C H I N G
University personnel and teachers and school administrators at the cooperating school site share a vision for technology use in the classroom.	Schools, districts, and universities share a vision for supporting new teachers in their use of technology in the classroom.
Access to current technologies, software, and telecommunications networks is provided for student teachers/interns and their master teachers/mentors/supervisors in the classroom and professional work areas.	Access to current technologies, software, and telecommunications networks is provided for new teachers for classroom and professional use, including access beyond the school day.
Master (cooperating/supervising) teachers and university supervisors model technology use that facilitates students' meeting the ISTE National Educational Technology Standards for Students.	Peers and administrators are skilled users of technology for teaching and school management.
Cooperating/master teachers and supervisors of student teachers/interns are readily provided with professional development in applications of technology in teaching.	Faculty has continuous access to a variety of professional development opportunities in several delivery modes, with time to take advantage of the offerings.
In field-experience settings, technical assistance is onsite to ensure reliability of technology resources.	Technical assistance for faculty and staff is timely, onsite, and includes mentoring to enhance skills in managing classroom software and hardware resources.
tooologies in their discipline. Technology-based curriculum resources that are appropriate in meeting the content standards in teaching areas and grade ranges are available to teacher candidates at the student/intern site.	The school district provides professional development opportunities related to local policies and content standards and the technology-based resources to support the new teacher's efforts to address those standards.
Opportunities to implement a variety of technology-enhanced, student- centered learning activities are provided for teacher candidates/interns.	Faculty routinely use student-centered approaches to learning to facilitate student use of technology.
Cooperating/master teachers work with student teachers/interns to assess the effectiveness of student learning and of technology in supporting that learning.	The district and school site support the classroom teacher in the assessment of learning outcomes for technology-supported activities to inform planning, teaching, and further assessment.
Student teachers/interns teach in partner schools where technology integration is modeled and supported.	Schools provide beginning teachers with connections to the community and models of effective use of local and other resources.
Student teaching/internships are located at sites where administrative policies support and reward the use of technology.	School induction-year policies, budget allocations, and mentoring assignments support the first-year teacher's use of technology. Hiring practices include policies regarding technology skills of prospective hirees.



This chart provides guidelines for the NETS for Teachers essential conditions that should be in place for each phase in the teacher preparation process to support effective use of technology to improve learning, communication, and productivity.