

# International Technical High School Analysis (NC<sup>3</sup>T Design Specifications)

## Finland

### Description of the Finnish School System

Early childhood education and care spans 0-5 years of age, followed by pre-primary education for 6-year-olds, then basic education at comprehensive schools for 7- to 16-year olds, which completes compulsory education, though Finnish students may take advantage of a voluntary additional year of basic education in order to better prepare for upper secondary schooling (about 2.5% of students participate). Finnish students then apply to either general upper secondary education (54.5%) or initial vocational education (35.8%) at a vocational institution or apprenticeship site. General upper secondary education ends in a matriculation exam, which entitles the student to continue to universities, polytechnics, or vocational institutions. Vocational education results in a vocational qualification, confirmed by the Ministry of Education and Culture – a confirmation that the completer is qualified for an occupation, or to continue to universities, polytechnics, or further or specialized vocational qualification. (Overview, Ministry of Education and Culture) Vocational education students may also complete both a vocational qualification and a general education matriculation, either by completing general upper secondary education along with vocational education, or by passing at least four subjects on the matriculation exam. (VETF 15)

### Governance

The Parliament of Finland passes the legislation and general principles that govern education. The Ministry of Education and Culture formulates and implements policy. The Finnish National Board of Education is responsible for implementing the Ministry's policies. Municipalities or joint municipal authorities are responsible for local administration such as curricula, staffing, and allocation of funding. These local authorities then determine how much local authority to delegate to schools. The Finnish National Board of Education is also responsible for determining the national curricula and requirements for competence-based qualifications.

(Ministry of Education and Culture, Finland):

[http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/koulutuksen\\_hallinto\\_ja\\_paeaeto\\_eksenteko/index.html?lang=en](http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/koulutuksen_hallinto_ja_paeaeto_eksenteko/index.html?lang=en), VETF 19)

## Teacher Preparation

Vocational education teachers must have completed an appropriate degree, pedagogical studies, and at least three years of related work experience. Teachers generally obtain this education at vocational education colleges attached to polytechnics (which accept only about 35% – 40% of applicants), but teachers may also complete a university teacher training program. Workplace instructors supervise work-based learning. Teachers are expected to continuously improve their competencies and maintain active contacts with the world of work, as part of Finland’s teacher quality management. Finnish teachers may also participate in professional development placements abroad as a means for improving their technical and teaching skills. (VETF 22, 25, 26)

## Career Guidance

Guidance counselors attend the vocational teacher education colleges that operate in conjunction with polytechnics. Based on belief in the importance of guidance to students’ successful choices and effective program individualization, Finland has built into the vocational education system both individual and group guidance counseling, as well as guidance to support learning. While guidance counselors have primary responsibility for planning, organizing, and implementing counseling, teachers also contribute to the counseling effort and older students often tutor and mentor younger students. (VETF 15, 22)

## Business and Social Partner Participation

Business and social partners support vocational education in several ways. They provide apprenticeship sites and other work-based learning environments that are central to the Finnish qualifications system (see below). Employers, employees, entrepreneurs, and teachers serve on the qualifications committees that arrange, organize, and supervise competence tests; assess technical skills for competence tests; and award qualification certificates. Businesses that are designated as vocational education providers may supply preparatory training for competence-based qualifications. Qualifications committees aim to provide individualized qualifications that ensure that students’ qualifications are appropriate to the occupation, provide a smooth transition into the occupation, support lifelong learning, and meet labor market needs and employee goals. Assessors that include employers, employees, and educators assess a student’s performance at the completion of each qualification unit and determine whether to pass the student; qualifications committees determine the outcome of the final assessment. (VETF 4, 6-7, 13, 17)

## Value of Vocational Education

The Finnish vocational education system is based on “qualifications”. Qualifications committees determine a plan for each student, based on the competencies required in the specific occupation. The resulting plan determines the units of study, competence areas included, vocational skills required, and assessment guidelines, and results in successful students’

qualification certificate. The number of students applying for vocational secondary programs has increased in the last 13 years. Upper secondary vocational education is available for both young people leaving basic education and adults who want to improve or expand their skills. Vocational education programs stress lifelong learning and self-development. In addition to technical skills, vocational education programs include significant work-based learning and capstone components, entrepreneurial competence, and work-life balance and wellbeing. Curricula include competency in learning, problem-solving, interaction, cooperation, occupational ethics, sustainable development, aesthetics, communication, media competence, active citizenship, and appreciation of different cultures. Compulsory core units include languages, mathematics, physical education, arts, and culture. Vocational education students may substitute vocational education subject units for general upper secondary units, take general upper secondary units, and take the general upper secondary matriculation examination required for university entry, in addition to their qualifications certificate and further vocational training or specialization. (VETF 7-8, 11)

## Pathways

The Finnish education system aims to provide a “coherent learning pathway that supports children’s growth, development, and wellbeing”, starting with pre-primary education and continuing through basic and upper secondary education. Students may move from one pathway to another, with recognition of their prior learning built into the mechanisms for changing pathways and safeguarded by legislation in order to avoid duplication. Finland has versatile and flexible study tracks for the transition point between basic education and upper secondary education, aimed at supporting successful transitions. Students who are uncertain about their upper secondary choices may participate in pre-vocational studies. After upper secondary education, vocational education students may pursue further qualifications and specialist qualifications or enter a university or polytechnic. Further qualifications add skill levels; specialist qualifications demonstrate mastery of the most demanding skills in an occupation. Further and specialist qualification training also includes lifelong learning skills. Universities emphasize scientific research and instruction, and polytechnics take a practical approach. (VETF 9-10, Ministry of Education, <http://www.minedu.fi/OPM/Koulutus/koulutusjaerjestelmae/index.html?lang=en>)

## Differences Between Vocational and Academic Preparation

Finland has minimized the differences between vocational and academic preparation, with the primary difference being the addition of specific technical skills in vocational education. The national curricula include strong lifelong learning skills, strong development of basic numeracy and literacy, and access to postsecondary education, regardless of pathway choices. Finland has built mechanisms into its education system that facilitate student choice and freedom of movement.

## **Disadvantaged Students**

Finland provides several programs for disadvantaged students. A rehabilitative instruction and guidance program allows students who need special support to develop vocational and life skills, with the aim of providing the most independence possible. These programs support students with disabilities, illness, delayed development, or other challenges. Instruction is generally provided at vocational institutions and in the same groups with other students unless the student's needs preclude that arrangement. Finland also provides preparatory education for immigrants, aimed at providing them with upper secondary qualifications by improving their language skills as well as their academic and technical skills. In both the special needs program and the immigrant program, each student's plan is tailored to the student's needs and abilities. (VETF 10, 13-14)

## **Use of Data to Assess Outcomes**

On the premise that vocational education plays a key role in economic competitiveness, Finland bases its vocational education training on the analysis of quantitative labor market data and qualitative skills needs data. The goal is to align economic needs and labor market trends, education programs, and student needs as closely as possible. To that end, Finland includes in its vocational education system a mechanism for achieving a high level of technical skill as well as a mechanism for renewing technical skills. Quantitative data analysis informs the revision of existing programs and development of new programs through the qualifications frameworks and national curricula. (VETF 4)

In addition, Finland assesses its vocational education programs in several ways. Vocational education providers must complete a self assessment and make the results public, the Finnish Education Evaluation Council carries out provider assessments, the Finnish National Board of Education maintains a monitoring system, the Ministry of Education and Culture may require additional external assessments, and Finland may engage in international peer assessments. (VETF 25)