Vocational education at MSSCH
MSSCH: APPLIED CHEMISTRY

Students can choose 1 out of 3 possible specializations:

- FORENSIC CHEMISTRY
- CLINICAL AND TOXICOLOGICAL ANALYSIS
- SYNTHESIS AND PREPARATION OF PHARMACEUTICALS

Students are provided with both general and vocational education.
MSSCH: general education provided

<table>
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<tr>
<th>Compulsory subjects</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
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MSSCH: vocational education provided

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**Optional subjects:**
- Chemical analysis and
- Seminary in physics
MSSCH: specialized vocational education

- **Forensic chemistry** – specialized subjects taught: analytical chemistry, laboratory work, basics of chemical technology, toxicology, analysis and toxicology of medical drugs, analytical methods in forensic chemistry, introduction into criminal law, + 1 optional subject

- **Clinical and toxicological analysis** – specialized subject taught: analytical chemistry, laboratory work, basics of chemical technology, toxicology, molecular biology, clinical and toxicological analysis, + 1 optional subject

- **Synthesis and production of pharmaceuticals** – specialized subjects taught: analytical chemistry, laboratory work, basics of chemical technology, pharmacology, pharmaco-chemistry, production of pharmaceuticals, 1 optional subject
MSSCH: laboratories

- 4 chemistry laboratories
- Up-to-date
- Well-equipped
- With modern analytical devices
- With computers
MSSCH: co-operation

- The **Academy of Sciences** of the CR (The Institute of Physical Chemistry, of Microbiology, of Chemical Process Fundamentals, of Physics)

- **Institute of Chemical Technology**

- **Charles University**, the Faculty of Science
MSSCH: practical trainings

- aim: to gain more practical experience out of school in year 3 and 4
- compulsory
- both are two weeks long
- held in institutes, universities or chemical companies
- best students: internship (practical training) abroad
- project named *Pospolu*
MSSCH: competitions of professional work (soč, amavet)

- for talented students
- held annually
- school, regional and national level
- requires a lot of practical lab work, extensive measuring and data processing
- supervised by experts
MSSCH: field trips

Students go on various excursions, e.g.:
- Waste water treatment plant in Bubeneč
- Brewery U Fleků
- Sugar refinery Dobrovice
- Cementation plant Praha Lochkov
- Landfill site Praha Ďáblice
- Zentiva Praha (pharmaceutical company)
- Lovochemie Lovosice (largest producer of fertilizers in the CR)
- Institute of Macromolecular Chemistry
- Mitas Praha (producer of tyres)
- Spolana Neratovice (producer of PVC, H₂SO₄, fertilizers, etc.)
- Institute of Physical Chemistry
Brewery “U Fleků” opposite our school 😊
MSSCH: membership in professional associations

- The Association of the Chemical Industry of the Czech Republic
- Czech Chemical Society
MSSCH: ecological activities

- **Responsible Care** = an initiative and a commitment to improve our school’s environmental, health, safety and security performance
- **Eco-school** = programme of responsible environmental behaviour of the students and the staff
MSSCH: open days for the public
MSSCH: lab work for primary school children
MSSCH: exhibitions and science festivals
Thank you for your attention 😊