

HSC Chemistry® 7.0 Training

HSC is quite easy to use. The normal HSC installation CD contains separate manuals and calculation examples for all the 22 calculation modules. However, it is not easy to get a good overall picture from this extensive material package of all the application possibilities and the most typical calculation procedures. HSC Training courses help you to get more out of your HSC software. Several types of training courses are available.

A) Basic HSC Chemistry Course (2 Days)

1. First Day: General Introduction to HSC

- The first day provides the general information needed in most of the HSC modules
- Basic ideas, HSC internal structure, user interface issues, etc.
- Some basic principles of thermochemistry related to HSC
- Internal structure of the HSC databases, chemical formula syntax
- Specification of phases and species, etc.
- Demonstration of the HSC calculation modules with selected hands-on calculation examples
- Participants may also raise questions to focus on such issues that are important for them.

2. Second Day: Sim Flowsheet Simulation module

- Introduction, basic principles and features of reaction, distribution and particle modes. These modes may be applied, for example, to hydro, pyro and mineral processing applications.
- Demonstration with some example cases
- Flowsheet Workshop with reaction, distribution and/or particle mode cases.

This 2-day course covers all the calculation modules and databases and provides an understanding of HSC application possibilities. The target of the Basic HSC Course is to teach the participants what can be done with the HSC package and what cannot be done.

This course gives an overview of the basic HSC operation principles and the major procedures needed to solve more complicated problems with the HSC package. The course will also illustrate thermochemistry application possibilities in practical problems.

The majority of HSC users utilize perhaps only 1 - 2 of the HSC calculation modules. This course will help to understand the capabilities of all 22 calculation modules and 12 databases. The course will focus on the most common questions and problems raised by HSC users over the last few years.

The Basic Course is intended for beginners and intermediate users. However, more advanced users may also find it useful because they will have the opportunity to raise questions concerning more difficult issues.

Public and Internal HSC Courses

Public HSC training courses are available annually in different countries depending on demand and HSC user feedback. All participants must bring their own laptop. The latest HSC version with temporary license for 14 days will be installed in these laptops if needed. The price of the two-day course with printed course material, coffees and lunches is **1000 EUR**.

Internal HSC training courses may be arranged for companies and universities. These private courses make it easier to focus on such confidential issues and process examples that are important for your organization. Course content may focus on hydro, pyro, or mineral processing applications depending on your requirements and lecturer expertise. The cost depends on the number of lecturers. One lecturer may handle the whole course, but a second one may help a lot with the demonstrations and workshops by giving personal guidance.

Please ask for an HSC training availability and quotation from: hsc@outotec.com

B) Advanced Sim Course for Hydro Applications (2 Days)

1. First Day: Sim Flowsheet Reactions Mode Introduction

- Basic ideas, Sim internal structure, user interface issues, tools, specified working methods, etc.
- Demonstrations with several Sim reaction mode example cases.

2. Second Day: Sim Flowsheet Workshop

- The second day focuses on workshops, which provide information on drawing flowsheets, creating models, testing simulations, and analysis of the results.
- Workshop with simple reaction mode examples.
- Workshop with participant's own processes.

The Advanced Course covers a general introduction to the Sim Flowsheet module with several demonstrations and provides an understanding of Sim application possibilities. The target of this course is to acquire the versatile skills to use and create Sim Reactions mode simulation models and analyze the results.

This course is usually arranged on an internal basis for one organization only. The content may be tailored and focused according to customer requirements. This course may also be compressed into one day if needed. The cost depends on the site and dates.

C) Advanced Sim Course for Mineral Processing Applications (2 Days)

1. First Day: Sim Flowsheet Particle Mode Introduction

- Basic ideas, Sim internal structure, user interface issues, tools, specified working methods, etc.
- Demonstrations with several Sim particle mode example cases.

2. Second Day: Sim Flowsheet Workshop

- The second day focuses on workshops, which provide information on drawing flowsheets, creating models, testing simulations, and analysis of the results.
- Workshop with simple mineral processing examples.
- Workshop with participant's own processes.

The Advanced Sim Course covers a general introduction to the Sim Flowsheet module with several demonstrations and provides an understanding of Sim application possibilities. The target of this course is to acquire the versatile skills to use and create Sim Particle mode simulation models and analyze the results.

This course is usually arranged on an internal basis for one organization only. The content may be tailored and focused according to customer requirements. This course may also be compressed into one day if needed. The cost depends on the site and dates.

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