

# 迈格码培训学院手册2021

MAGMAacademy CATALOGUE

**MAGMA**  
ACADEMY  
STEPS



TRAININGS



WORKSHOPS



SEMINARS

# 目录

|                              |    |
|------------------------------|----|
| 迈格码培训学院                      | 5  |
| 迈格码应用服务                      | 7  |
| 迈格码六步法                       | 9  |
| <b>培训课</b>                   | 10 |
| 操作培训                         | 12 |
| 工艺辅导                         | 14 |
| 实战辅导                         | 16 |
| 模块辅导 —— 铸件应力和模具应力            | 18 |
| 模块辅导 —— 制芯                   | 20 |
| 升级培训                         | 22 |
| <b>讲习班</b>                   | 24 |
| 线上讲习班                        | 26 |
| —— 热处理、MAGMALink模块、虚拟试验设计和优化 | 26 |
| —— 反向优化和“用户结果”               | 28 |
| <b>研讨会</b>                   | 31 |
| 铸件的缺陷分析及质量提升                 | 32 |
| —— 重力有色                      | 32 |
| —— 高压压铸                      | 32 |
| —— 黑色砂铸                      | 32 |
| 客户定制课程                       | 34 |
| 认证书                          | 36 |
| 培训年历                         | 38 |
| 地址和联系方式                      |    |

# Content

|   |    |
|---|----|
| MAGMAacademy  | 6  |
| MAGMAimplementation   | 8  |
| MAGMA APPROACH  | 9  |
| <b>Trainings</b>  | 10 |
| Operation Training  | 13 |
| Process Coaching  | 15 |
| On-job Project Coaching   | 17 |
| Module Coaching --- Casting Stress & Die Stress                               | 19 |
| Module Coaching --- Core & Mold   | 21 |
| Upgrade Training  | 23 |
| <b>Workshops</b>  | 25 |
| On-Line Workshop  | 27 |
| --- Heat Treatment, MAGMALink, Virtual Design of Experiments and Optimization | 27 |
| --- Inverse Optimization and 'User Results'                                   | 29 |
| <b>Seminars</b>   | 31 |
| Defect Analysis and Quality Improvement of Castings                           | 33 |
| --- Gravity Nonferrous  | 33 |
| --- High Pressure Die Casting   | 33 |
| --- Ferrous   | 33 |
| Customized Courses  | 35 |
| User Certification  | 37 |
| Course Calendar   | 38 |
| Address & Contact   |    |





## 迈格码培训学院

迈格码培训学院旨在为迈格码客户提供各种铸造工艺优化的教育课程，并为铸造专家提供一个知识交流的重要平台。

其课程涉及MAGMASOFT®软件培训，模拟技术讲习班以及各类主题研讨会。通过这些课程，软件使用者可以进一步了解如何有效应用铸造工艺模拟—学习如何正确的分析结果，从而降低各类成本，提高铸件质量。

迈格码培训学院不仅对软件的主要使用者提供系统的培训和辅导，甚至对整个铸造行业的相关人员提供丰富的教育资源，从而致力于加强铸造工艺的全面整合。

**培训课：**全面铸造模拟软件培训课程分为3级：操作培训，工艺辅导和实战辅导。操作培训主要以软件操作为主。工艺辅导和实战辅导将深入到相应模块的铸造工艺知识以及客户项目的实战辅导。此培训及辅导将指导用户如何通过模拟优化工艺参数及设计，掌握模拟方法及影响，分析铸件缺陷，模拟结果等。

**讲习班：**通过讲习班的交流，可以更加深入了解迈格码模拟。此活动是特为感兴趣的迈格码用户而设的，目的是进一步提高用户的模拟知识、技巧以及分析方法。每个讲习班根据用户具体需求而设定特定主题，以便提供有针对性的模拟技巧来帮助分析铸造问题。

**研讨会：**是为和铸造领域有接触的所有相关人员而设计的。此课程可以涉及到整个流程：采购>设计>铸造>质量控制>市场>销售>管理层。因此，不仅为了用户，也为了设计人员，管理人员，质保人员和生产人员以及铸造采购商，领导层及决策者等等。

**认证书：**是认证用户在铸造界有能力使迈格码软件的考核项目，确保用户有能力通过自己的铸造经验及模拟知识，独立的设置、模拟、分析、优化和呈现模拟项目。

我们期待您参加迈格码培训学院的教育课程。  
欲知详情，请至官网查询或联系您的客户经理。

# Welcome to MAGMAacademy

The MAGMAacademy training center provides various educational offers dedicated to optimization of casting processes or casting designs and is a platform to share knowledge between experts. MAGMAacademy organizes all trainings, ongoing learning classes for customers related to MAGMASOFT®, as well as technical workshops and seminars. During these courses you will extend your knowledge about the efficient use of casting process simulation. You will learn how to interpret results correctly, reduce costs and increase the quality of your part.

MAGMAacademy's mission is to provide educational resources to software users and to aid assist in the integration of casting process simulation throughout your entire organization.

**Training:** Start with an Operation Training and then take on the specific Process Coaching and On-job Project Coaching. Using practical examples, you will learn about processes and materials with the focus on your application.

**Workshop:** Deepen your knowledge of MAGMASOFT® in one of our workshops. The workshops are specifically designed for users, who are experienced in working with MAGMASOFT® and want to improve their usage skills. Each workshop covers a particular topic and is designed to offer you assistance in tackling your casting application problems. You will learn how to increase your efficiency by using MAGMASOFT® for various areas!

**Seminar:** The seminars of MAGMAacademy are aimed at interested professionals and decision-makers who want to learn about the possibilities of simulation or benefits from the results. Apart from basics about specific materials or process-related topics, you will learn the methodical use and implementation of simulation results for casting development, tool design and production optimization.

**Certification:** A program to certify that the users have the experience and qualified education to demonstrate their capabilities and excel in casting simulation projects.

We look forward to welcoming you at one of our educational offerings in our MAGMAacademy centre in Suzhou.

For further details please search on MAGMA official website or contact your MAGMA contact person.



## 迈格码应用服务

你我一起，奔驰在赛道上 – 为了质量，利润，时间和竞争力！

成功不仅仅是使用模拟。应用迈格码意味着与MAGMASOFT®一起制定新的目标，并共同有效地实现这些目标。

MAGMASOFT®不仅仅是一款软件，它更是一种方法，旨在帮助贵公司优化生产工艺、增强有效沟通和提高盈利能力。迈格码将担任您的“副驾驶员”，为您提供来自迈格码培训学院和应用工程专家的专业支持。

甚至在您正式使用MAGMASOFT®之前，我们就已开始与您共同制定“路线图” – 根据贵公司的实际情况，与您共同探讨如何安全高效地使用MAGMASOFT®。作为客户，您受益于软件使用者的正规培训和认证；受益于全体相关员工通过研讨会得到的教育与提升；更受益于为公司各领域安全实施措施确定共同目标。

无论您是MAGMASOFT®的新客户还是长期用户，我们都会帮您定制专属应用服务！



## MAGMAimplementation

Together, we are in a race... for quality, profitability, time and competitiveness!

Success is more than just using simulation. Implementing MAGMA means setting new goals with MAGMASOFT® and achieving them efficiently together.

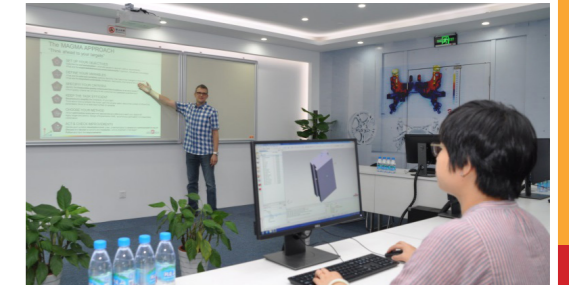
MAGMASOFT® is not just software. It is a methodology for optimizing casting process, part design, communication and profitability in your company. MAGMA will act as a “co-pilot” and offer you a professional support from our MAGMAacademy and our application engineering experts.

Even before you start using the software we will take the time to discuss with you the “roadmap” – the most important factors for an effective and safe use of MAGMASOFT® based on your situation. As a customer, you benefit from the right training and certification of the users, the qualification of all employees through tailor-made seminars, the joint definition of goals to the safe implementation of measures for all areas in the company.

Whether you are a new customer or a long-time user of our software – we have something planned for you!

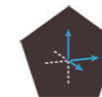
## 迈格码六步法 MAGMA APPROACH

“你的目标是什么？” “Think ahead to your targets”



### 设立目标 SET UP YOUR OBJECTIVES

Describe the **current situation**-what are issues to resolve? (status, requirements)  
What are the **expected/desired outcomes and benefits**? (optimum, robustness, knowledge)



### 定义变量 DEFINE YOUR VARIABLES

What are the **relevant variables** (options, flexibility) that need to be changed or analyzed?  
What are the **important constraints** (limitations, restrictions) that have to be considered?



### 明确标准 SPECIFY YOUR CRITERIA

Identify the **measurable quality criteria and their locations** (evaluation areas)?  
Which quality criteria can (or have to be) combined and assessed quantitatively?



### 提高效率 KEEP THE TASK EFFICIENT

**Structure** and **simplify** the complexity of your task! Think about how to simplify the model, split into smaller tasks, reduce the number of influencing parameters, focus on a restricted number of variables.



### 选定方法 CHOOSE YOUR METHOD

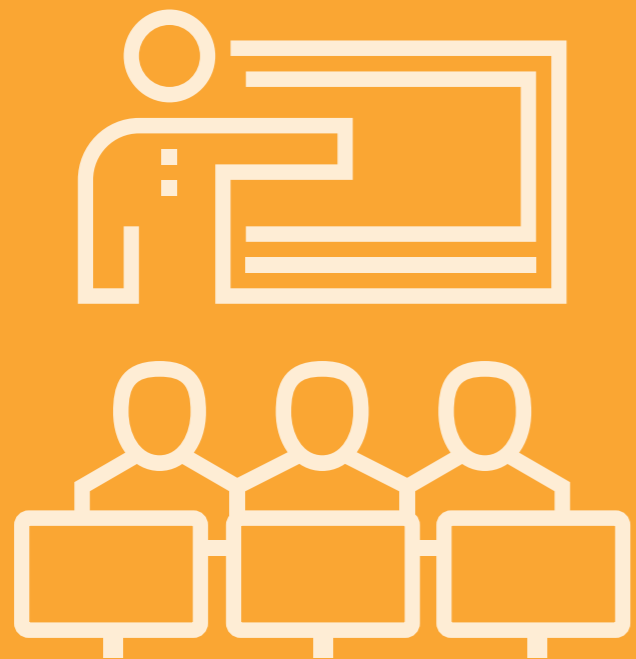
Which **optimization tools** are most appropriate and effective to reach your objective? Apply single simulations, Design of Experiments (DoE), autonomous optimization or a reasonable combination.



### 持续提升 ACT & CHECK IMPROVEMENTS

Decide upon suitable **visualization tools** (clear, understandable) to assess and communicate the results!

**Discuss** and **decide** for actions and **measures** – who is important in that team?  
**Follow** and track the **improvements**!



培训课  
TRAININGS





## 操作培训

条件: 无

级别: 初级

为期: 3天

费用: 1. 2700€+6%VAT (最多3人)

2. 免费 (在有效维保期内用户)

### 课程介绍:

操作培训是专为初级水平或零基础的主要使用者以及第二批新的主要使用者而设置的, 内容主要包括迈格码六步法的介绍及应用。针对充型和凝固模拟的操作设定以及虚拟实验设计和优化的初级应用。

### 课程大纲:

- 模拟介绍及迈格码六步法
- 几何界面—练习 #1
- 网格界面—练习 #2
- 定义界面—练习 #3
- 优化界面—练习 #4
- 模拟界面—练习 #5
- 评估界面—练习 #6
- 结果界面—练习 #7

### 课程目标:

- 主要使用者会设定并模拟项目, 会对模拟结果进行初步的分析

### 参加对象:

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员

### 培训地点:

- 迈格码 (苏州) 软件科技有限公司 培训学院



## Operation Training

Prerequisites: None

Course Level: Basic

Duration : 3 days

Course Fee : 1. 2700€+6%VAT(for up to 3 participants)

2. Included in a valid Maintenance and Support Agreement

### About the course:

The Operation Training course is intended for beginner level main users or additional new users. The course curriculum includes the MAGMA APPROACH, the manipulation and set-up of projects which are focused on filling and solidification as well as basic definition of optimizations and their assessment.

### Course Overview :

- Introduction of simulation and MAGMA APPROACH
- Geometry Perspective - Lab #1
- Enmeshment Perspective - Lab #2
- Definition Perspective - Lab #3
- Optimization Perspective - Lab #4
- Simulation Perspective - Lab #5
- Assessment Perspective - Lab #6
- Result Perspective - Lab #7

### By the end of this session the main user should be able to :

- Set up a project, start a simulation and analyze results

### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professionals who work with sand mold or die casting processes

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy





## 工艺辅导

**条件:** 操作培训

**级别:** 中级

**为期:** 3天

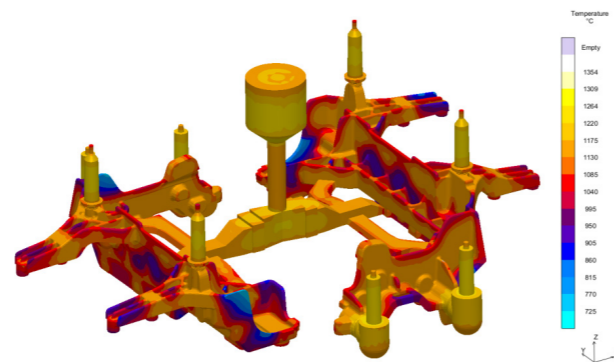
**费用:** 1. 4500€+6%VAT (最多3人)  
2. 免费 (在有效维保期内用户)

### 课程介绍:

工艺辅导课程是继操作培训之后的必修课程，其在操作培训之上增加更多完成模拟的有效方法。主要使用者在参加此课程之前必须完成至少3个模拟项目。由于实际铸造现场的具体情况错综复杂，主要使用者在做模拟时可能会遇到操作培训不能解决的问题，而工艺辅导课程则为他们提供了一个讨论问题解决方法的机会，且更多讲解模拟结果的含义，结合多个结果分析产品缺陷以及高级设定技巧。

### 课程大纲:

- 审查用户项目
- 高级网格划分技巧
- 深入分析模拟结果
  - 充型
  - 凝固
- 创建模拟报告
- 铸造工艺在模拟中的应用
- 自主优化分析
- 练习



### 课程目标:

- 主要使用者会设定并模拟项目，会对模拟结果进行有效的分析

### 参加对象:

- 迈格码软件用户 (优先)
- 工程师，设计师，技术员，压铸或砂铸的工作人员

### 培训地点:

- 迈格码 (苏州) 软件科技有限公司 培训学院

## Process Coaching

**Prerequisites:** Operation Training

**Course Level:** Intermediate

**Duration** : 3 days

**Course Fee** : 1. 4500€+6%VAT(for up to 3 participants)  
2. Included in a valid Maintenance and Support Agreement

### About the course:

The Process Coaching course is a mandatory follow-up to the Operation Training course and contains additional information necessary for the completion of the Operation Training program. The main users must complete at least 3 simulation projects before they are eligible to attend a Process Coaching. After working with the software in a real-world environment, main users may have encountered situations which were not addressed during the Operation Training course. The Process Coaching course allows main users the opportunity to discuss any problems they may have encountered. The Process Coaching program will provide greater insight into result meaning, combining results for better understanding, discussion of defect identification using results and advanced set-up techniques.

### Course Overview :

- Review users' projects
- Advance modelling technique and criterion
- In-depth analysis into simulation results
  - Filling
  - Solidification
- Simulation report guideline
- Process knowledge to simulation applications
- Autonomous optimization analysis
- Labs

### By the end of this session the main user should be able to :

- Efficiently set up projects, evaluate simulation results

### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professionals who work with sand mold or die casting processes

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 实战辅导

- 条件:** 操作培训和工艺辅导, 并自操作培训起半年内完成
- 级别:** 高级
- 为期:** 3天
- 费用:** 1. 4500€+6%VAT (最多3人)
2. 有效维保期内客户可享有折扣价

### 课程介绍:

实战辅导课程是由迈格码专家和主要使用者共同完成客户的一个实际项目。迈格码专家会就结果评估方面给主要使用者提供建议和指导。由于时间关系, 多数项目是要延续至课堂之后继续完成的。

### 课程大纲:

- 审查用户项目
- 高级网格划分技巧
- 深入分析模拟结果
  - 充型
  - 凝固
- 创建模拟报告
- 铸造工艺在模拟中的应用
- 自主优化分析
- 练习

### 课程目标:

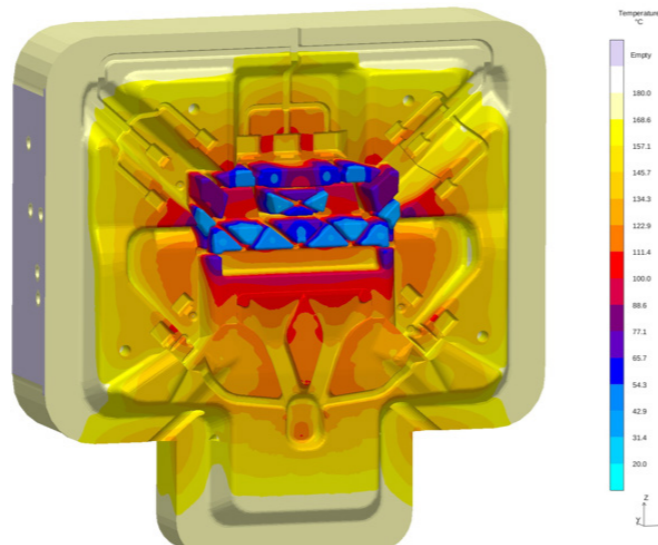
- 主要使用者会
- 解释缺陷的根源
  - 寻求可行的解决方案
  - 彻底实施该方案
  - 创建模拟报告
  - 有效的汇报演示模拟结果

### 参加对象:

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员

### 培训地点:

- 用户现场
- 迈格码 (苏州) 软件科技有限公司 培训学院



## On-job Project Coaching

**Prerequisites:** Operation Training and Process Coaching, must be completed within 6 months after attending the Operation Training

**Course Level:** Advanced

**Duration :** 3 days

**Course Fee :** 1. 4500€+6%VAT(for up to 3 participants)

2. Discounts available for customers having a valid Maintenance and Support Agreement

### About the course:

The On-job Project Coaching course revolves around a main user's project which will be worked on in class with an experienced MAGMA application engineering expert. This course will help the main users assess the current project status, develop a strategic approach to the problem and be provided with suggested result evaluation techniques. In most cases the scope of the project is beyond what can be completed in three days. Additionally project work which begins in the Process Coaching course may continue after the course days are completed.

### Course Overview :

- Review users' projects
- Advance modelling technique & criterion
- In-depth analysis into simulation results
  - Filling
  - Solidification
- Simulation report guideline
- Process knowledge to simulation applications
- Autonomous optimization analysis
- Labs

### By the end of this session the main user should be able to :

- Explain the root cause of a problem
- Determine a strategy to find an acceptable solution
- Implement the strategy
- Create simulation report
- Effectively communicate the results to others

### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professionals who work with sand mold or die casting processes

### Location:

- On-site
- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 模块辅导 --- 铸件应力和模具应力

**条件:** 操作培训和工艺辅导  
**级别:** 中级  
**为期:** 2天 / 1天  
**费用:** 1. 1500€/天 + 6%VAT (最多3人)  
 2. 免费 (在有效维保期内客户)

### 课程介绍:

该应力模块辅导分为铸件应力和模具应力，客户可以按需选择。铸件应力将解释应力 / 应变相关的铸造缺陷，并为用户提供结果评估信息。模具应力将解释在铸造循环过程中，金属型模具冷热循环引起的模具应力和变形，预测模具寿命。强烈建议迈格码应力模块的主要使用者参加本课程。此外，鼓励使用者在参加本课程之前，对填充和凝固模拟设置有良好的使用经验。

### 课程大纲:

- 应力设置流程
- 应力结果分析
- “首选项”
- 内存消耗
- 记事簿文件
- 顶出变形 (仅限压铸)
- 材料力学基础知识

### 课程目标:

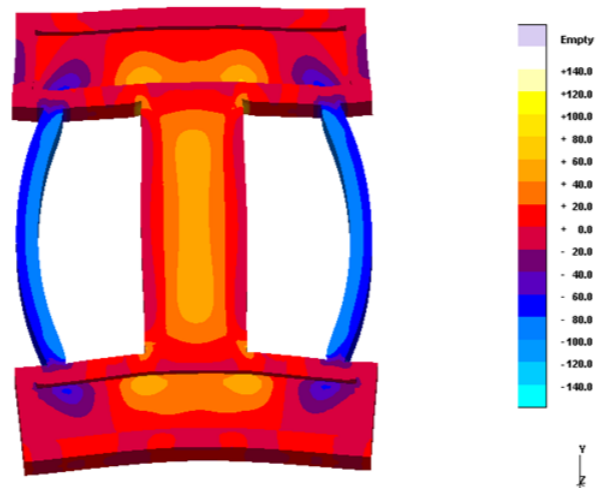
- 主要使用者能有效的设定并解读评估应力模拟结果

### 参加对象:

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员

### 培训地点:

- 迈格码 (苏州) 软件科技有限公司 培训学院



## Module Coaching --- Casting Stress & Die Stress

**Prerequisites:** Operation Training and Process Coaching  
**Course Level:** Intermediate  
**Duration** : 2 days / 1 day  
**Course Fee** : 1. 1500€ / day+6%VAT(for up to 3 participants)  
 2. Included in a valid Maintenance and Support Agreement

### About the course:

MAGMAstress module coaching is divided into casting stress and die stress, customers can choose on demand. 'Casting stress' is a fast-paced course which explains stress/strain related casting defects and provides users with result evaluation information. 'Die stress' will explain the die stress and deformation caused by the hot and cold cycle of the metal mold during the casting cycle, and predict the die life. Main users of the MAGMAstress module are strongly advised to attend the course. In addition, users are encouraged to have a good working knowledge of filling and solidification simulation set-up prior to attending this course.

### Course Overview :

- Set - up process
- Simulation result analysis
- “Preferences”
- Memory consumption
- Log - file
- Ejection deformation (HPDC only)
- Basic knowledge of material mechanics

### By the end of this session the main user should be able to :

- Set-up and evaluate results of a MAGMAstress simulation for casting processes effectively

### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professionals who work with sand mold or die casting processes

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 模块辅导 --- 制芯

**条件:** 操作培训

**级别:** 中级

**为期:** 2天

**费用:** 1. 3000€ + 6%VAT (最多3人)  
2. 免费 (在有效维保期内客户)

### 课程介绍:

本课程面向受过 MAGMASOFT® 充填和凝固模拟设置培训的主要用户。本课程将为用户提供设置、模拟和评估砂芯和模具制造所需的信息。

### 课程大纲:

- 制芯的原理以及实验数据分析
- 射砂以及固化过程的模拟参数设置和结果解读
  - 冷芯
  - 热芯
  - 无机砂芯
- 制芯过程自主优化分析
- 练习

### 课程目标:

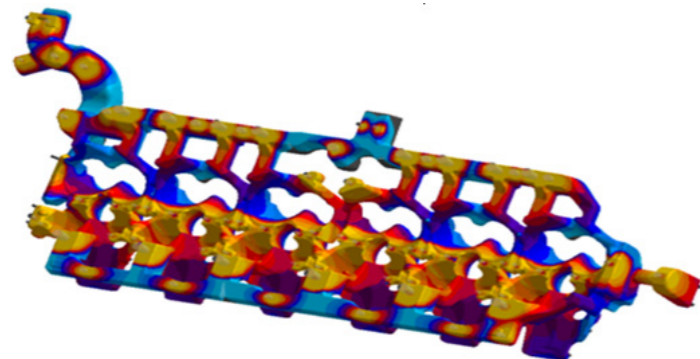
- 主要使用者能有效的设定并解读评估砂芯和模具的模拟结果

### 参加对象:

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员,

### 培训地点:

- 迈格码 (苏州) 软件科技有



## Module Coaching --- Core & Mold

**Prerequisites:** Operation Training

**Course Level:** Intermediate

**Duration** : 2 days

**Course Fee** : 1. 3000€ +6%VAT(for up to 3 participants)

2. Included in a valid Maintenance and Support Agreement

### About the course:

This course is for main users who have been trained on the use of MAGMASOFT® filling and solidification simulation. This course will provide users with the information required to set up, run and evaluate core and mold making simulations.

### Course Overview :

- Principle and experimental data analysis of core making process
- Simulation setting and result analysis of sand shooting and curing process
  - Coldbox core
  - Hotbox core
  - Inorganic core
- Autonomous optimization analysis of core making process
- Labs

### By the end of this session the main user should be able to :

- Set-up and evaluate results of a MAGMA C+M simulation effectively

### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professionals who work with core and mold making processes

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 升级培训

**条件:** 操作培训

**级别:** 初级

**为期:** 1-2 天

**费用:** 免费 (在有效维保期内用户)

### 课程介绍:

新版升级培训仅在迈格码软件版本有升级时举办。该课程涵盖所有新增功能的介绍和使用,借助相关实例的练习,主要使用者能够轻松快速的掌握新功能的使用,平稳过渡到新版本。对于使用 MAGMASOFT® 多个模块的主要使用者而言,该课程将结合讲解各模块功能。

### 课程大纲:

- MAGMASOFT® 新功能

### 课程目标:

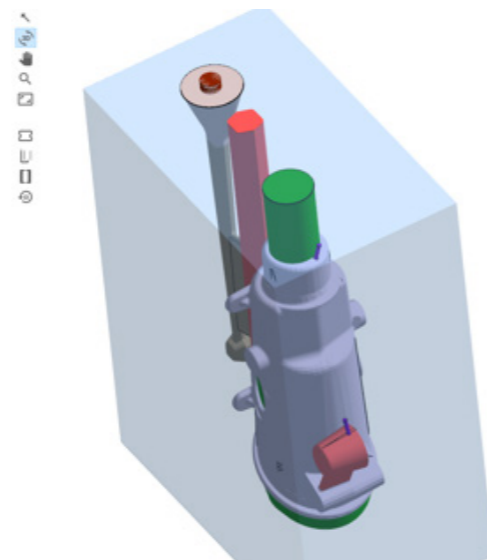
- 主要使用者会使用 MAGMASOFT® 新功能

### 参加对象:

- 迈格码软件用户

### 培训地点:

- 迈格码(苏州)软件科技有限公司 培训学院



## Upgrade Training

**Prerequisites:** Operation Training

**Course Level:** Basic

**Duration** : 1-2 days

**Course Fee** : Included in a valid Maintenance and Support Agreement

### About the course:

The Upgrade Training is offered when a major software version change or upgrade occurs. Main users who attend an Upgrade Training will find it easier and faster to learn the new options and features available, facilitating a smooth transition to the new version. In cases where main users are utilizing multiple modules of MAGMASOFT®, efforts will be made to combine module functionality in one session.

### Course Overview :

- New major features of MAGMASOFT®

### By the end of this session the main user should be able to :

- Understand and use the newly introduced features of MAGMASOFT®

### Who should attend:

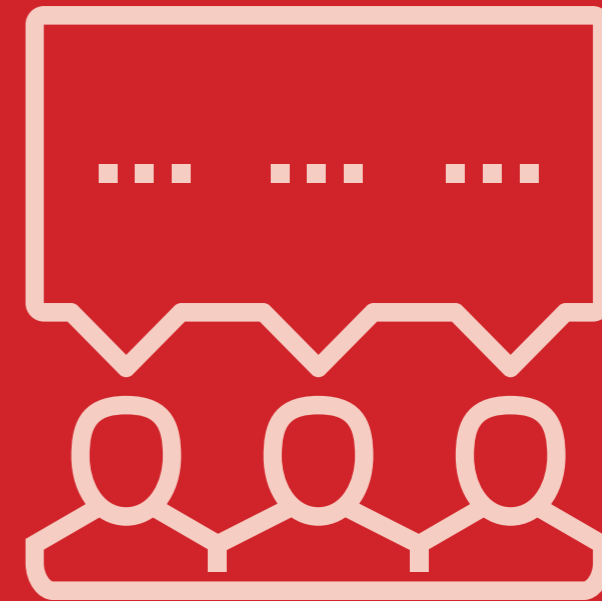
- MAGMASOFT® users

### Location:

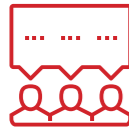
- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy

# 5

**MAGMASOFT®**  
autonomous engineering



讲习班  
WORKSHOPS



## 线上讲习班

**条件:** 操作培训

**级别:** 中级

**费用:** 1. 1000RMB+6%VAT/人  
2. 免费 (在有效维保期内用户)

### 主题: 热处理

**日期:** 3月12日

**课程介绍:**

本次讲习班将根据用户的使用水平, 深入浅出的讲解热处理的基础理论知识, 同时会讲解并演练迈格码软件的操作设定以及实际案例的应用。

### 主题: MAGMAlink 模块

**日期:** 5月14日

**课程介绍:**

本次讲习班将根据用户的使用水平, 深入浅出的讲解 MAGMAlink 模块的基础理论知识, 同时会讲解并演练迈格码软件的操作设定以及实际应用。

### 主题: 虚拟试验设计和优化

**日期:** 8月27日

**课程介绍:**

该讲习班主要讲解如何在重力砂型 / 高压 / 金属型 / 低压等各个铸造工艺中使用优化功能, 以便用户能将 MAGMASOFT® 这一强大功能应用到实际生产中。参加者将学习虚拟试验设计和优化的理论基础和实操方法以及各模块实际案例的经典分析。

**参加对象:**

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员

## On-Line Workshop

**Prerequisites:** Operation Training

**Course Level:** Intermediate

**Course Fee :** 1. 1000RMB+6%VAT/participant  
2. Included in a valid Maintenance and Support Agreement

### Heat Treatment for Steel / Al Castings

**Date:** 12<sup>th</sup>, March

**About the course:**

This workshop will cover the basic theoretical knowledge needed to set up and evaluate heat treatment simulation. It will also be exercised using MAGMASOFT®. The workshop pace will be adapted to the participants' skill level.

### MAGMAlink

**Date:** 14<sup>th</sup>, May

**About the course:**

This workshop will cover the simulation result export via the MAGMAlink module. The workshop pace will be adapted to the participants' skill level.

### Virtual Design of Experiments and Optimization

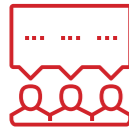
**Date:** 27<sup>th</sup>, August

**About the course:**

This workshop introduces you to the extended capabilities for the optimization of sand casting processes and permanent mold applications. It is meant to help you integrate the use of the optimization features into your daily work with MAGMASOFT®. You will learn how to work with virtual design of experiments and optimization and also the related case study.

**Who should attend:**

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professional who work with sand mold or die casting processes



## 线上讲习班

- 条件:** 操作培训和工艺辅导  
**级别:** 高级  
**费用:** 1. 1000RMB+6%VAT/人  
 2. 免费 (在有效维保期内用户)

### 主题: 反向优化

日期: 10月29日

#### 课程介绍:

在这个讲习班中, 您将学习如何使用反向优化的基础知识, 来模拟和优化迈格码软件。通过利用反向优化, 您将根据在铸造厂获得的测量结果, 计算出如何更好地将模拟模型的边界条件调整到实际工艺条件中, 从而使模拟结果更适合于实际工艺。

### 主题: “用户结果”

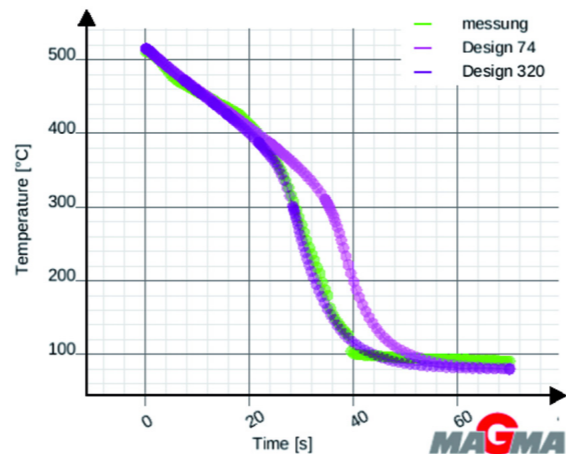
日期: 11月12日

#### 课程介绍:

在这个讲习班中, 您将学习如何使用用户特定的结果 (“用户结果”) 来模拟和优化迈格码软件。

#### 参加对象:

- 迈格码软件用户 (优先)
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员



## On-Line Workshop

- Prerequisites:** Operation Training and Process Coaching  
**Course Level:** Advanced  
**Course Fee :** 1. 1000RMB+6%VAT/participant  
 2. Included in a valid Maintenance and Support Agreement

### Inverse Optimization

Date: 29<sup>th</sup>, October

#### About the course:

In this workshop, you will learn the basics of how to use inverse optimization to simulate and optimize with MAGMASOFT®. By using inverse optimization, you will calculate how to better adjust the boundary conditions of the simulation model to the actual process conditions based on measurements obtained in the foundry. This allows you to better adapt the simulation results to the actual process.

### ‘User Results’

Date: 12<sup>th</sup>, November

#### About the course:

In this workshop, you will learn & practice using user-specific results ('User Results') to combine existing results for a better assessment or to define own results for additional understanding of a simulation with MAGMASOFT®.

#### Who should attend:

- MAGMASOFT® users (Priority)
- Engineers, designers, technicians working in a casting environment or professional who work with sand mold or die casting processes

|                            |                                 |
|----------------------------|---------------------------------|
| PorAir<br>Scalar3D         | ModifiedAirPressure<br>Scalar3D |
| ModifiedLee<br>Scalar3D    | SDAS_AISI6Cu4<br>Scalar3D       |
| ModifiedNiyama<br>Scalar3D | SDAS_AISI7Mg<br>Scalar3D        |

(Example of 'User Results')





研讨会  
SEMINARS

研讨会



## 铸件的缺陷分析及质量提升

**条件:** 无  
**级别:** 高级  
**为期:** 2天 / 模块  
**模块:** 重力有色  
          高压压铸  
          黑色砂铸

**费用:** 1. 5000RMB+6%VAT/人  
          2. 免费 (在有效维保期内用户)

### 课程介绍:

本此研讨会专注于软件功能在各种铸造工艺中的实际应用, 通过对 MAGMA 模拟结果的解读和分析来阐述相关的工艺变量对铸件质量的影响, 以及通过案例分析来明确铸件缺陷生成的根本原因, 最终实现铸件质量的大幅提升。其中值得关注的是, 包含了迈格码软件最新版本 5.5 的新结果解读。

### 课程大纲:

- 模拟结果解读
- 铸件缺陷解析
- 工艺变量分析
- 实际案例讲解

### 课程目标:

参加者能

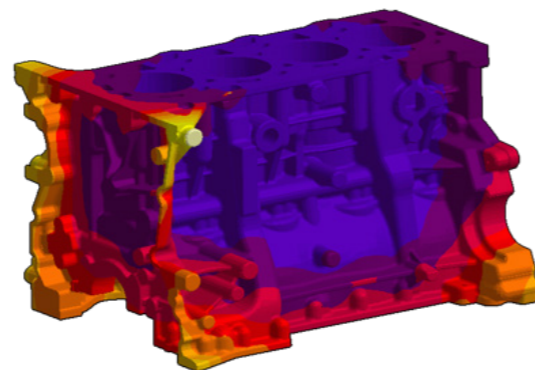
- 加深对迈格码软件模拟结果的理解, 明确并深层次的理解铸件缺陷
- 最终提高铸件质量, 减少各项成本

### 参加对象:

- 迈格码软件用户
- 工程师, 设计师, 技术员, 压铸或砂铸的工作人员

### 培训地点:

- 迈格码 (苏州) 软件科技有限公司 培训学院



## Defect Analysis and Quality Improvement of Castings

**Prerequisites:** None  
**Course Level:** Advanced  
**Duration** : 2 days / module  
**Modules** : Gravity Nonferrous  
              High Pressure Die Casting  
              Ferrous  
**Course Fee** : 1. 5000RMB+6%VAT/participant  
              2. Included in a valid Maintenance and Support Agreement

### About the course:

This seminar covers the interpretation and analysis of MAGMA simulation results, the influence of process variables on casting quality is expounded, and the root cause of casting defect formation is confirmed through case analysis. It is worthy of concern that it includes the Interpretation of new simulation results in MAGMASOFT® 5.5.

### Course Overview :

- Interpretation of simulation results
- Analysis of casting defects
- Explanation of process variables
- Case studies

### By the end of this session the participant should be able to :

- Have a deep understanding of MAGMASOFT® simulation results and the casting defects
- Control process variables for improved efficiency, quality and reduced cost at their facility

### Who should attend:

- MAGMASOFT® users
- Engineers, designers, technicians working in a casting environment or professional who work with sand mold or die casting processes

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 客户定制课程 为贵公司量身定做的专有技术

最好的新知识和技能传授可以通过一个专门为贵公司设计的培训、辅导或研讨会来实现。我们的专业知识和专业组织以及贵司员工的积极交流是活动成功的有力保障。通过整合公司的所有相关部门，贵司可以实现更高效的沟通，并受益于由此产生的协同效应。让您的团队精诚合作，节省时间和成本，共同面对各项挑战！

根据您的需求，我们可以定制一个新的课程，并为您的员工持续提升制定合适的计划。我们迈格码培训学院将与您密切合作，建立实际案例课程，以便可以立即应用到实际工作生产中。

据调查结果显示，在参加定制课程后，其客户业绩、工作绩效、学习效率、投资回报率等均得到显著提高。

我们很乐意为您提供满足贵司需求的各项定制活动。

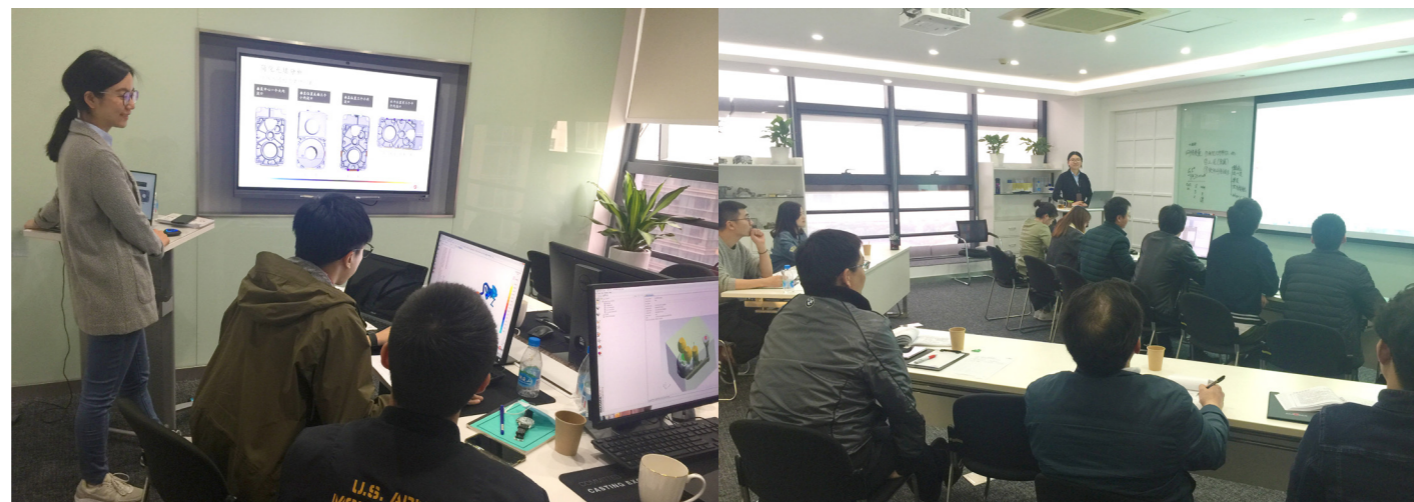
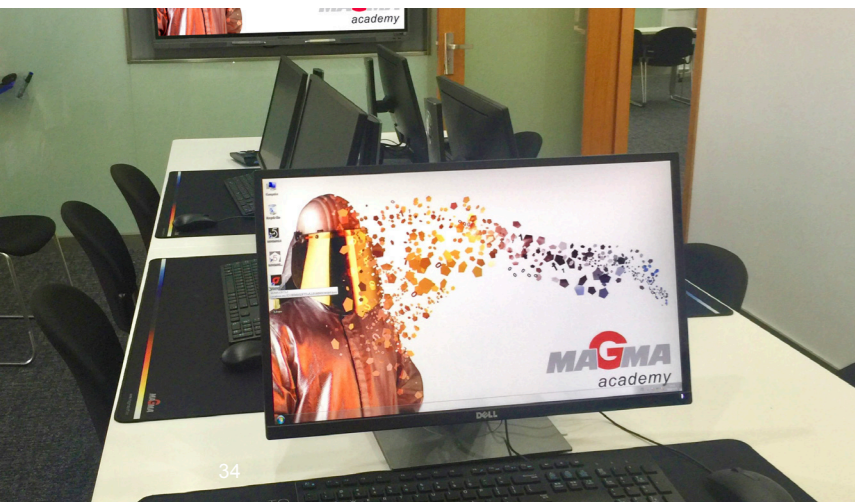
## Tailor-Made Know-How for Your Company

The best possible transfer of new knowledge and skills can be achieved through a course tailored to your company. The exchange between your employees, the know-how of our experts and a professional organization guarantee you a successful course. By integrating all relevant departments of your company, you achieve more efficient communication among each other and use the synergy effects that arise. Give your team the chance to master individual challenges together and save time and costs!

Based on your demands, we customize a new course to your needs and create just the right program for your staffs' continuous improvement. Our MAGMAacademy team will work closely with you to create courses that provide practical examples which can be immediately applied to the participant's actual work environment.

Participant survey results showed that performance outcomes, job performance, learning effectiveness, ROI, etc. improved significantly upon delivery of customized courses.

We would be pleased to offer you courses that are individually tailored to your needs, also as an on-site event.



## 认证书 — 用户认证项目 (CUP)

# Certificate

兹证明 / THIS IS TO CONFIRM THAT

公司 / Company :

业已成功掌握铸造模拟软件操作和实际应用, 经审核达到 CUP 的要求, 特授予此证书。

(HAS SUCCESSFULLY MASTERED, UNDER THE CERTIFIED USER PROGRAM (CUP), THE OPERATION AND APPLICATION OF CASTING SIMULATION PROGRAM).

**MAGMASOFT**  
autonomous engineering

模块 (Of Modules) :

证书编号 (CUP Number) :

发证日期 (Issue Date) :

Sunny Dou  
MAGMAacademy Manager

Mathieu Weber  
General Manager

迈格码 (苏州) 软件科技有限公司  
MAGMA Engineering (Suzhou) Co., Ltd  
苏州市工业园区苏惠路 98 号国信大厦 15 层 1515 室  
Phone: +86 512 6272 5820, Fax: +86 512 6272 5825  
[www.magma-software.com](http://www.magma-software.com)

**MAGMA**  
Committed to Casting Excellence

符合条件的主要使用者成功完成认证项目并合理呈现报告, 方可通过迈格码用户认证考核。该认证考核按 MAGMASOFT® 模块分类, 用户可以参加多个模块的考核。

按原则, 考生必须在迈格码年度用户大会上做最终的报告呈现, 内容包括解释考核项目范围, 策略, 结果以及最终解决方案。一般情况下, 我们也允许在内部会议或用户现场做最终的报告呈现。

用户认证项目 (CUP) 证书将在迈格码年度用户大会上颁发。该证书不仅是对通过考核的主要使用者的肯定, 同时更是其所在公司有效使用 MAGMASOFT® 软件的资质证明。

### 通过认证的用户能够:

- 评估项目范围
- 寻求项目目标和策略
- 获取启动项目所需的工艺和质量数据
- 有效设置和评估同一项目的多个版本
- 与生产的相关部门交流模拟结果和解决方案

### 考核条件:

- 操作培训、工艺辅导和实战辅导
- 软件使用满一年
- 在有效维保期内

### 考核活动实施期:

- 7 月至 11 月

### 考核为期:

- 1 天

### 考核地点:

- 迈格码 (苏州) 软件科技有限公司 培训学院

## Certification — Certified User Program, CUP

The 'MAGMA Certification of User' status is achieved by completing all three levels of MAGMASOFT® main user training and coaching, the successful completion of a certification project and presentation of a report. Users will be certified only for the modules of MAGMASOFT® which they use during their certification project work and therefore may wish to pursue multiple certification awards.

They must present a final report at our annual user meeting explaining the project scope, strategy, findings and eventual solution to a group of their peers. In some cases, we may allow the final report presentation to occur during an internal meeting or at customer's site.

Upon successful completion of this process, MAGMA will provide a certification to the users during our annual user group meeting.

This certification will also serve as notification that the organization employs users who can effectively apply that tool.

### Certified Users will be able to:

- Assess the scope of a project
- Develop goal(s) and strategy for project work
- Acquire process and quality data needed to begin project work
- Efficiently set-up and evaluate multiple versions within a project
- Communicate simulation results and findings among all areas of their organization

### Prerequisite:

- Operation Training, Process Coaching and On-job Project Coaching
- Min.1 year of MAGMASOFT® usage
- Users with valid Maintenance and Support Agreement

### Program Open Period:

- July–November

### Duration:

- 1 day

### Location:

- MAGMA Engineering (Suzhou) Co., Ltd MAGMAacademy



## 2021 年培训学院年历 MAGMAcademy Calendar 2021

| 月份<br>Month | 周<br>Week | 培训课 Training               |       |          |                          |          |          |       |                         |      | 线上讲习班<br>On-line<br>Workshop | 研讨会<br>Seminar | 考核<br>CUP |
|-------------|-----------|----------------------------|-------|----------|--------------------------|----------|----------|-------|-------------------------|------|------------------------------|----------------|-----------|
|             |           | 操作培训<br>Operation Training |       |          | 工艺辅导<br>Process Coaching |          |          |       | 模块辅导<br>Module Coaching |      |                              |                |           |
|             |           | 黑色砂铸                       | 高压压铸  | 重力金属型    | 铸铁                       | 铸钢       | 高压压铸     | 重力金属型 | 铸件应力                    | 模具应力 |                              |                |           |
| 一月<br>Jan.  | 1         | 5~7                        |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 2         |                            | 12~14 |          | 12~14                    |          |          |       |                         |      |                              |                |           |
|             | 3         |                            |       | 19~21    |                          | 19~21    |          |       |                         |      |                              |                |           |
|             | 4         |                            |       |          |                          |          | 26~28    | 26~28 |                         |      |                              |                |           |
| 二月<br>Feb.  | 5         | 2~4                        |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 6         |                            |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 7         |                            |       |          |                          |          |          |       |                         |      |                              |                |           |
| 八月<br>Aug.  | 8         |                            | 22~24 |          |                          |          |          | 22~23 | 24                      |      |                              |                |           |
|             | 9         |                            |       |          | 2~4                      |          |          |       |                         |      |                              |                |           |
| 三月<br>Mar.  | 10        |                            |       |          |                          |          | 9~11     |       |                         |      | 12                           |                |           |
|             | 11        | 16~18                      |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 12        |                            | 23~25 |          | 23~25                    |          |          |       |                         |      |                              |                |           |
|             | 13        |                            |       | 3/30~4/1 |                          | 3/30~4/1 |          |       |                         |      |                              |                |           |
|             | 14        |                            |       |          |                          |          | 6~8      | 6~8   |                         |      |                              |                |           |
| 四月<br>Apr.  | 15        | 12~14                      |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 16        |                            | 19~21 |          |                          |          |          |       |                         |      | 22~23                        |                |           |
|             | 17        |                            |       |          | 27~29                    |          |          |       |                         |      |                              |                |           |
| 五月<br>May.  | 18        |                            |       |          |                          |          | 6~8      |       | 6~7                     | 8    |                              |                |           |
|             | 19        | 11~13                      |       |          |                          |          |          |       |                         |      | 14                           |                |           |
|             | 20        |                            | 18~20 |          | 18~20                    |          |          |       |                         |      |                              |                |           |
| 六月<br>Jun.  | 21        |                            |       | 25~27    |                          | 25~27    |          |       |                         |      |                              |                |           |
|             | 22        |                            |       |          |                          |          | 1~3      | 1~3   |                         |      |                              |                |           |
|             | 23        | 8~10                       |       |          |                          |          |          |       |                         |      |                              |                |           |
|             | 24        |                            | 15~17 |          |                          |          |          |       |                         |      |                              |                |           |
|             | 25        |                            |       |          | 21~23                    |          |          |       |                         |      |                              | 24~25          |           |
| 六月<br>Jun.  | 26        |                            |       |          |                          |          | 6/29~7/1 |       |                         |      |                              |                |           |

## 2021 年培训学院年历 MAGMAcademy Calendar 2021

| 月份<br>Month | 周<br>Week | 培训课 Training               |       |       |                          |       |            |            |                         |      | 线上讲习班<br>On-line<br>Workshop | 研讨会<br>Seminar | 考核<br>CUP |
|-------------|-----------|----------------------------|-------|-------|--------------------------|-------|------------|------------|-------------------------|------|------------------------------|----------------|-----------|
|             |           | 操作培训<br>Operation Training |       |       | 工艺辅导<br>Process Coaching |       |            |            | 模块辅导<br>Module Coaching |      |                              |                |           |
|             |           | 黑色砂铸                       | 高压压铸  | 重力金属型 | 铸铁                       | 铸钢    | 高压压铸       | 重力金属型      | 铸件应力                    | 模具应力 |                              |                |           |
| 七月<br>Jul.  | 27        | 6~8                        |       |       |                          |       |            |            |                         |      |                              |                |           |
|             | 28        |                            | 13~15 |       | 13~15                    |       |            |            |                         |      |                              |                | 16        |
|             | 29        |                            |       | 20~22 |                          | 20~22 |            |            |                         |      |                              |                |           |
|             | 30        |                            |       |       |                          |       | 27~29      | 27~29      |                         |      |                              |                | 30        |
| 八月<br>Aug.  | 31        | 3~5                        |       |       |                          |       |            |            |                         |      |                              |                | 6         |
|             | 32        |                            | 10~12 |       |                          |       |            |            | 10~11                   | 12   |                              |                |           |
|             | 33        |                            |       |       | 17~19                    |       |            |            |                         |      |                              |                | 20        |
|             | 34        |                            |       |       |                          |       | 24~26      |            |                         |      | 27                           |                |           |
| 九月<br>Sept. | 35        | 8/31~9/2                   |       |       |                          |       |            |            |                         |      |                              |                | 3         |
|             | 36        |                            | 7~9   |       | 7~9                      |       |            |            |                         |      |                              |                | 10        |
|             | 37        |                            |       | 14~16 |                          | 14~16 |            |            |                         |      |                              |                | 17        |
|             | 38        |                            |       |       |                          |       |            |            |                         |      |                              | 23~24          |           |
|             | 39        |                            |       |       |                          |       | 28~30      | 28~30      |                         |      |                              |                |           |
| 十月<br>Oct.  | 40        |                            |       |       |                          |       |            |            |                         |      |                              |                |           |
|             | 41        | 12~14                      |       |       |                          |       |            |            |                         |      |                              |                | 15        |
|             | 42        |                            | 19~21 |       |                          |       |            |            |                         |      |                              |                |           |
|             | 43        |                            |       |       | 26~28                    |       |            |            |                         |      | 29                           |                |           |
| 十一月<br>Nov. | 44        |                            |       |       |                          |       | 2~4        |            | 2~3                     | 4    |                              |                |           |
|             | 45        | 9~11                       |       |       |                          |       |            |            |                         |      | 12                           |                |           |
|             | 46        |                            | 16~18 |       | 16~18                    |       |            |            |                         |      |                              |                | 19        |
| 十二月<br>Dec. | 47        |                            |       | 23~25 |                          | 23~25 |            |            |                         |      |                              |                | 26        |
|             | 48        |                            |       |       |                          |       | 11/29~12/1 | 11/29~12/1 |                         |      |                              |                |           |
|             | 49        | 7~9                        |       |       |                          |       |            |            |                         |      |                              |                |           |
|             | 50        |                            | 14~16 |       |                          |       |            |            |                         |      |                              |                |           |
|             | 51        |                            |       |       | 21~23                    |       |            |            |                         |      |                              |                |           |
| 十二月<br>Dec. | 52        |                            |       |       |                          |       | 28~30      |            | 28~29                   | 30   |                              |                |           |

迈格码（苏州）软件科技有限公司

地址：苏州市工业园区苏惠路98号国检大厦15层1515室

邮编：215021

联系人：培训经理 豆子春

电话：+86 512 6272 8319

邮箱：academy@magmasoft.cn

**MAGMA Engineering (Suzhou) Co., Ltd**

Room 1515 CIQ Tower

No 98 Suhui Road, Suzhou Industrial Park

Jiangsu Province, China 215021

Contact: MAGMAacademy Manager Sunny Dou

Tel: +86 512 6272 8319

Email: academy@magmasoft.cn



**MAGMA**  
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