What is it?

MASTER stands for Math, Applied Science, Technology, Engineering, and Research. Wheaton Academy’s MASTER program is an extension of the math and science departments, specifically designed for those interested in a career in these areas or those who have a passion for science and math. This program has five pillars, and students will be exposed to all five (Math, Science, Technology, Engineering, and Research) as they learn to address the world’s problems creatively through collaboration, through innovation, and, most importantly, through the lens of God’s truth. As part of the traditional WA science/math/technology courses, the MASTER program incorporates co-curricular and innovative research opportunities through clubs, programs, and internships in which students apply their learning across all five pillars of the program.

Can anyone be a part of the MASTER program?

Anyone who meets the prerequisites of courses with the MASTER designation may take them. However, due to the amount of time and space needed for the high-end research portion of the program, enrollment in the MASTER Major program is currently limited to 40 (approximately 10 per graduating class). Because of this limitation students will need to apply to be in the Major.

Why the MASTER program?

Employment estimations indicate that 60% of future jobs will be in science or math related fields, but only 20% of the population will have the skills for these jobs. Consequently, students who have an interest in these fields need opportunities to discover and fuel those passions so they will be prepared to be the future leaders and innovators who will shape the world. It is our desire that Wheaton Academy students be prepared to lead the way in these areas.

Such preparation will provide students with opportunities to discover their level of interest in these fields before entering college or to enhance their pursuits in these fields as they apply to highly selective universities. This program includes valuable opportunities to find and make connections/applications between the different disciplines.

In addition, the MASTER program will prepare students to face ideas that may appear to conflict with biblical principles. Students will be equipped to defend their faith within the world of science when they are faced with ideas that esteem scientific theory more highly than God.

At what point do students apply for the MASTER Major?

Students may apply at the time they register for the Directed Research course, the Jr/Sr Research Project, or participate in an Internship. This will most likely occur at the end of the sophomore year or first semester of junior year.

Is there a fee associated with the MASTER program?

There are no additional fees for the standard MASTER courses. However, for some student-proposed projects in the higher-level research courses or internships, there may be an additional fee. Involvement in certain co-curricular opportunities may require additional fees as well.

1. Teach For America https://www.teachforamerica.org/sites/default/files/131202_008_rpak_stem_op_overview.pdf
What are the academic requirements?

A student can pursue two paths within the MASTER program: a MASTER Major or a MASTER Minor.

- Students can receive a MASTER Major designation on their diploma by completing at least 30 credits of MASTER classes with a cumulative GPA of 3.75 or above in those classes. Requirements include at least one class in each of the five areas of the program with a minimum of one core AP science course (AP Physics, AP Chemistry, or AP Biology); 8 semesters of science and 8 semester of math; the Topics in Science and Biblical Truth course, completion of an internship; a junior/senior research project; at least one seminar; and a student portfolio.

- Students can receive a MASTER Minor designation on their diploma by completing at least 20 credits of MASTER classes with a cumulative GPA of 3.3 or above in those classes. Requirements include at least one class in each of the five areas of the program with a minimum 6 semesters of science and 6 semesters of math; and involvement in at least one co-curricular science program.

Does being a part of the MASTER Program require summer school or activities outside the school day?

For those pursuing a Minor, all requirements can be met during the traditional academic year and school day (although some may opt to take advantage of opportunities outside the school day that count toward the minimum of 20 MASTER credits). A Major requires extensive time devoted to the program outside the school day and will require a commitment during a portion of summer school. Some of the co-curricular options also may have some summer work that needs to be completed before participation. Students pursuing the Major will need to take courses each summer in order to give more flexibility for MASTER courses or electives during the school year.

Can students take yearlong electives such as Band or Choir or World Language if they are pursuing a MASTER Major?

Yes. A MASTER Major involving two AP science classes has room for an elective each year provided the student takes summer school. However, due to the restrictive semester schedule and the fact that most colleges require some foreign language courses in high school, it would be in the student’s best interest to take one or more classes during summer school. With seven academic periods in a day, a commitment to the MASTER Major would require some electives Jr/Sr year to be for MASTER credit.

“Witnessing the scientific process unfold in the research class, whether through novel research or the sequencing of unknown genes, has been a powerful reminder of what our students can accomplish when presented with opportunities in science.”

– Luke Regan, Science Teacher
What is the “Topics in Science and Biblical Truth” class?

The “Topics in Science and Biblical Truth” class is a required course for anyone pursuing the MASTER Major and highly recommended for those pursuing the Minor. The purpose of the course is to discuss modern science and the way it aligns with the Christian worldview. Some of the topics include the science-religion relationship, miracles, Darwinian evolution vs. traditional Creationist’s view, views of Intelligent Design, as well as evolution. Discussion and research on controversial topics in today’s society such as cloning, human genetic engineering, human-animal hybrid research, genetic determinism, stem cell research, uses of nuclear power, environmental issues, the limits of technology, and solving the world’s “wicked problems” such as responses to hunger, natural disasters, and so on, from a Christian worldview will be included. Those who are pursuing a Major through the MASTER program will tie concepts covered in this class to their student portfolio.

What is the student portfolio and Junior/Senior Research Project?

The student portfolio is an ongoing collection of all the student’s work during his/her time in the MASTER program. The capstone piece of the portfolio is the Junior/Senior Research Project, in which the students apply what they have learned throughout their time in the MASTER program. The topic/format of the portfolio as well as the Junior/Senior Research Project is based on the student’s area of interest and agreed upon by the MASTER program advisor and the student. The Research Project could range from research in a lab to literature research. The results of this Research Project will be presented to a panel of members from the scientific community during the student’s senior year. This project will be evaluated both internally and externally. If the student opts for the semester-long class, that class does not count toward MASTER credit (basically a science study hall), but the final Jr/Sr Research Project is worth 4 MASTER credits. During the last month of their time in this program, the student will finish assembling their final portfolio, which is also worth 1 MASTER credit.

“The MASTER program will benefit the entire student body by integrating more hands-on opportunities in all levels of science, while at the same time, allowing those who have a passion for a career in science to focus on that interest.”

– Chris Felinski, WA Science Department Head

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<th>MAJOR</th>
<th>MINOR</th>
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<tr>
<td>Math</td>
<td>8 including AP Calculus (AB or BC)</td>
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<tr>
<td>Math</td>
<td>8 including at least 1 core AP Science Course</td>
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<td>Topics in Science and Biblical Truth</td>
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<td>Summary Paper/Interview</td>
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<td>Minimum MASTER credits</td>
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<td>20</td>
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*Those pursuing a Minor may take the additional enrichment opportunities or be part of a co-curricular program and have it count toward the minimum 20 MASTER credits.
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