

# Stairway to STEM: Providing Resources for Autistic Students/Students on the Autism Spectrum

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Stairway to STEM (STS) is a nonprofit organization with a mission to help autistic students realize their capacity for success as they transition to college environments and beyond, particularly in STEM fields.<sup>1</sup> The goal of STS is to be a one-stop online resource for students on the autism spectrum, their parents, and post-secondary STEM instructors. Following the STS Identifying Language Policy, throughout this article the use of identity-first and person-first language will be alternated.<sup>2</sup> A lot of autistic people like identity-first language, however it is a matter of personal choice, and the best thing to do is to ask individuals which they prefer (person-first or identity-first language).

Some may be familiar with the American Psychiatric Association's Diagnostic and Statistical Manual's (DSM) description of autism in the form of deficits and the severity of social-emotional reciprocity, nonverbal communicative behaviors, and the management of relationships, marked by restrictive, repetitive patterns of behavior, interests, or activities, and/or sensory sensitivities.<sup>3</sup> However, viewing autism from this medical or deficit model can lead to attitudes of "fixing" students—to molding them into typical behaviors and interactions.<sup>4</sup> In contrast, the social justice or neurodiversity model of autism emphasizes that autism is not at its core a communication deficit but instead a communication difference—one that should be honored and respected.<sup>4</sup>

Stairway to STEM supports student confidence, resiliency, and self-advocacy through the production of tools and events designed to: (i) build awareness of academic and employer-based STEM programs among autistic individuals;

and (ii) promote existing evidence-based practices to an expanded community of educational institutions, students on the autism spectrum, and their families and employers. The online resources span podcasts, forums, e-books, newsletters, and posts geared towards students, families, and educators. Stairway to STEM was developed, produced, and is maintained by Pellet Media Inc., an award-winning media production company. Below some questions and answers are presented about STS with Mary Ellen Gardiner, chief of staff for Pellet Media.<sup>5</sup>

**Vermaak:** What are the most popular autism resources for collegiate success that you provide and why do you think that is?

**Gardiner:** The videos are the most popular resource on the STS website. They are created by autistic students for autistic students; they are genuine and speak directly to the students. For example, some recent videos include:

- **"Tips for Autistic Students: Attending Academic and Scholarly Conferences,"** by STEM graduate student Laura Gilmour<sup>6</sup>
- **"How To Use Your Phone, Calendar & Daily Planner to Master Your College Schedule,"** by STEM student Elinore Alms<sup>7</sup>
- **"How Examining Autism and the Immigrant Experience Together Can Benefit Communities,"** by STEM graduate student Laura Gilmour<sup>8</sup>

*“The better we understand the challenges facing autistic students who also belong to other minority populations, the better we can recognize and support their particular needs.”*

—Ariane Garcia,  
Stairway to STEM

Blog posts written by STS content creators are also popular. For example, students, families, and educators really enjoyed a post, “Intersectionality, Autism & STEM College Outcomes,” written by STS editorial board member Ariane Garcia.<sup>9</sup> In this article, Garcia considers the way various forms of discrimination can compound negative STEM college outcomes for autistic students in relation to race, gender, and sexuality. She begins by exploring the term “intersectionality” and then shows how it has serious consequences for many current and aspiring STEM students. Garcia writes, “The better we understand the challenges facing autistic students who also belong to other minority populations, the better we can recognize and support their particular needs.”<sup>9</sup>

**Vermaak:** Since STS started publishing in 2018, what do you consider as one of your major accomplishments?

**Gardiner:** One of our highlights was our 2019 conference Imagine Your Future in STEM, in partnership with the RISE Learning Institute, STEM to Stern, and Neurodiversity Navigators at Bellevue College in Bellevue, Washington. At this conference over 100 high school students and families came together to share exciting and relevant content for autistic high school students and the transition to college and a STEM career. The conference explored the skills and resources needed for collegiate and workplace success, including considerations such as self-advocacy, internal motivation, and organizational and executive functioning abilities. Environmental resources for educational and workplace professionals, including understanding autistic culture and communication, and the value of a neurodiverse workplace were discussed, with Bellevue College STEM faculty sharing best practices and students sharing their college experiences. In addition, a professional panel from Microsoft’s Neurodiversity Community (formerly Autism Community) presented on career experiences.<sup>10,11</sup> Many of the resources and best practices shared can be found in STS’ free e-books:

- ***Autism 101: An Introduction to Academic Success:*** This is a collection of STS material curated with an eye toward educators and the students they instruct. The first section provides an overview of academic autistic culture and first-hand accounts of common challenges that autistic students face. The second section includes tips and strategies from autistic students and academic and support professionals around time management, organization, and interacting with professors.<sup>4</sup>
- ***Imagine Your Future in STEM: College Transition, Achievement, and Further Educational and Professional Advancement:*** This e-book is geared toward students and families. It pulls together extensive STS material on the college transition, college success, and preparing for graduate school or the workforce. Each section supports students and families at crucial points as students develop their self-advocacy and manage increased independence.<sup>12</sup>

**Vermaak:** Finally, what message would you like to share with the student and professional members of TMS and the *JOM* readership about addressing the needs of autistic students/students on the autism spectrum who are transitioning from high school to college in the STEM fields?

**Gardiner:** The importance of self-advocacy cannot be overstated. There are many advocacy resources and starting points outlined for autistic students in the STS materials online. Another resource is the Autistic Self Advocacy Network (ASAN).<sup>13</sup> This organization seeks to advance the principles of the global disability rights movement with regard to autism. Allies are encouraged to continue to educate themselves in order to support autistic people. In addition to STS materials for students, families, and educators, the ASAN also provides general resources for allies through its website, Welcome to the Autistic Community.<sup>14</sup>

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## Endnotes

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