

# WHAT ARE WE LOOKING FOR?

## SCHOOL OF ENGINEERING (SEG)

- Eager to make things happen and turn potential ideas into reality?
- At SEG, you will learn to combine LOGIC and IMAGINATION to become a resourceful PROBLEM-SOLVER who can tackle real-world problems. Let's find innovative solutions to change the way we live!

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/questions covered)
<b>Aerospace Engineering</b>	<ul style="list-style-type: none"> <li>Aviation</li> <li>Aerospace</li> <li>Drones</li> <li>Aeromodelling</li> <li>Mathematics</li> <li>Physics</li> <li>Technical skills involving material fabrication (metal, woodwork, plastic, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Awards, testimonials, and/or certificates</li> <li>Engineering/design projects and/or competitions related to the field of study</li> <li>Evidence that demonstrates interest in the field of study such as hobbies, participation in relevant ApLMs* as well as Learning Journeys/visits to aviation companies or events (e.g. Aviation Open House and Air Show)</li> <li>CCA records, including any evidence of leadership &amp; team skills and/or involvement in service-learning programmes</li> <li>Participation in aviation related CCAs such as Air Scouts, National Cadet Corps (Air), and Singapore Youth Flying Club</li> </ul>	<ul style="list-style-type: none"> <li>Duration: 10 - 15 minutes</li> <li>Knowledge and interest about the field of study or industry</li> <li>Future plans and the relevance of the course</li> <li>Past experiences and achievements that demonstrate your interest in the course</li> </ul>
<b>Aviation Management</b>	<ul style="list-style-type: none"> <li>Airport operations</li> <li>Air traffic management</li> <li>Airline operations</li> <li>Flight operations</li> <li>Passenger services</li> <li>Airport planning</li> </ul>	<ul style="list-style-type: none"> <li>Awards/achievements, certificates, projects and/or competitions related to aviation</li> <li>Record of Values-In-Action (VIA) activities</li> <li>Evidence that demonstrates interest in the field of study, such as hobbies, participation in relevant ApLMs* as well as Learning Journeys</li> </ul>	<ul style="list-style-type: none"> <li>Duration: 10 - 15 minutes</li> <li>Reason/motivation for choosing the course</li> <li>Knowledge and interest about the field of study or industry</li> </ul>

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/ questions covered)
	<ul style="list-style-type: none"> <li>• Airport management</li> <li>• Aviation safety</li> <li>• Ground operations</li> </ul>	<ul style="list-style-type: none"> <li>• CCA records, including any evidence of leadership &amp; team skills and/or involvement in service-learning programmes</li> <li>• Career aspirations</li> </ul>	<ul style="list-style-type: none"> <li>• Future plans and the relevance of the course</li> <li>• Past experiences that demonstrate your interest and ability for the course, and key lessons you have gained from them</li> </ul>
<b>Business Process &amp; Engineering Management</b>	<ul style="list-style-type: none"> <li>• Business process &amp; operation management</li> <li>• Process efficiency, productivity optimisation, and improvements</li> <li>• Resource, quality, and project management</li> <li>• Process and workflow simulation</li> <li>• Making a difference in designing safe and human-friendly work environments</li> <li>• 3D printing applications</li> <li>• Broad spectrum of industries</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials, and/or certificates</li> <li>• Relevant documents to show participation in activities related to management of business processes, operations, resources, logistics, and events</li> <li>• Evidence that demonstrates interest in the field of study, such as hobbies, participation in relevant ApLMs* as well as Learning Journeys</li> <li>• Record of Values-In-Action (VIA) activities</li> <li>• CCA records</li> <li>• Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Description of the industry and career path you are most interested in</li> <li>• Description of how your aspirations align with this course</li> <li>• Activities you have organised, the challenges you faced, and the strategies you used to overcome them</li> <li>• Examples of how you have improved the way things are done</li> <li>• Involvement in CCA roles</li> </ul>
<b>Electrical &amp; Electronic Engineering</b>  with majors in: <ul style="list-style-type: none"> <li>◦ Communications</li> <li>◦ Microelectronics</li> </ul>	<ul style="list-style-type: none"> <li>• Drones</li> <li>• Internet of Things (IoT)</li> <li>• Embedded systems</li> <li>• Robotics</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials, and/or certificates</li> <li>• Relevant documents to show participation in areas of interest</li> <li>• Evidence that demonstrates interest in the field of study, such as hobbies and participation in relevant ApLMs*</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Knowledge and interest about the field of study or industry</li> </ul>

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/questions covered)
	<ul style="list-style-type: none"> <li>• Augmented reality and virtual reality</li> <li>• Semiconductor</li> <li>• Integrated Circuit (IC) fabrication</li> <li>• Data storage and memory</li> </ul>	<ul style="list-style-type: none"> <li>• CCA records, including any evidence of leadership &amp; team skills and/or involvement in service-learning programmes</li> <li>• Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>• Future plans and the relevance of the course</li> <li>• Past experiences and achievements that demonstrate your interest in the course</li> <li>• Preferred choice of major specialisation: Communications or Microelectronics</li> <li>• Involvement in CCA roles</li> </ul>
<b>Engineering</b>  <b>with majors in:</b> <ul style="list-style-type: none"> <li>◦ Innovation &amp; Design</li> <li>◦ Project Management</li> <li>◦ Sustainable Technology</li> </ul>	<ul style="list-style-type: none"> <li>• Product Design</li> <li>• Computer Aided Design</li> <li>• Design thinking</li> <li>• 3D Printing &amp; Scanning</li> <li>• Electronics Prototyping &amp; Mechatronics</li> <li>• Project Management</li> <li>• Operations Planning</li> <li>• Green Building Technologies</li> <li>• Working with people</li> <li>• Broad spectrum of Industries</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials, and/or certificates</li> <li>• Relevant documents to show participation in activities or competitions related to product design and prototyping/hackathons/operation or resources management/built environment/sustainability</li> <li>• CCA records</li> <li>• Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Knowledge and interest about the field of study or industry</li> <li>• Past experiences and achievements that demonstrate your interest in the course</li> <li>• Key aspects of the industry that you are interested in</li> <li>• Activities you have organised, the challenges you faced, and the strategies you used to overcome them</li> <li>• Involvement in CCA roles</li> </ul>

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/ questions covered)
<b>Mobility &amp; Robotics Systems</b>	<ul style="list-style-type: none"> <li>• Robotics systems</li> <li>• Automation systems</li> <li>• Intelligent mobility systems such as the mass rapid transit system, unmanned aircraft, and autonomous mobile robots</li> <li>• Public land transport systems such as rail operations management and maintenance, and bus fleet management</li> <li>• Emerging vehicular technologies such as electric vehicle and autonomous vehicle</li> <li>• Working with people</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials, and/or certificates</li> <li>• Relevant documents to show participation in robotics/automation/ vehicular/land transport related activities or competitions</li> <li>• CCA records</li> <li>• Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Knowledge and interest about the field of study or industry</li> <li>• Key aspects of the industry that you are interested in</li> <li>• Activities you have organised, the challenges you faced, and the strategies you used to overcome them</li> <li>• Involvement in CCA roles</li> </ul>
<b>Supply Chain Management</b>	<ul style="list-style-type: none"> <li>• Product management</li> <li>• Inventory management</li> <li>• Transport management</li> <li>• Technology application in supply chain and logistics operations</li> <li>• Process improvement and optimisation</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials, and/or certificates</li> <li>• Relevant documents to show participation in supply chain/ logistics related activities or competitions</li> <li>• CCA records</li> <li>• Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Knowledge and interest about the field of study or industry</li> <li>• Key aspects of the industry that you are interested in</li> </ul>

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/ questions covered)
	<ul style="list-style-type: none"> <li>Working with people</li> </ul>		<ul style="list-style-type: none"> <li>Activities you have organised, the challenges you faced, and the strategies you used to overcome them</li> <li>Involvement in CCA roles</li> </ul>
Sustainable Built Environment	<ul style="list-style-type: none"> <li>Built environment industry</li> <li>3D modelling for buildings/building information modelling</li> <li>Sustainable/green building design</li> <li>Smart facilities management</li> <li>Working with people</li> </ul>	<ul style="list-style-type: none"> <li>Awards, testimonials, and/or certificates</li> <li>Relevant documents to show participation in built environment/sustainability related activities or competitions</li> <li>CCA records</li> <li>Any volunteer work or achievement outside of school</li> </ul>	<ul style="list-style-type: none"> <li>Duration: 10 - 15 minutes</li> <li>Reason/motivation for choosing the course</li> <li>Knowledge and interest about the field of study or industry</li> <li>Key aspects of the industry that you are interested in</li> <li>Activities you have organised, the challenges you faced, and the strategies you used to overcome them</li> <li>Involvement in CCA roles</li> </ul>

Current Course Title	Demonstrates Passion or Interest in:	Portfolio (What goes into the portfolio)	Interview (Estimated duration and possible topics/questions covered)
<b>Common Engineering Programme</b>	<ul style="list-style-type: none"> <li>• At least one passion or interest stated under any of the SEG courses</li> </ul>	<ul style="list-style-type: none"> <li>• Awards, testimonials and/or certificates</li> <li>• Relevant documents to show participation in activities and/or competitions related to Engineering, Innovation &amp; Design, Project Management, Sustainable Technology or Management of Business Processes</li> <li>• Evidence that demonstrates interest in the field of study, such as participation in relevant ApLMs* as well as Learning Journeys/visits to engineering-related companies or events</li> <li>• CCA records, including any evidence of leadership &amp; team skills and/or involvement in volunteering or service-learning programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Duration: 10 - 15 minutes</li> <li>• Reason/motivation for choosing the course</li> <li>• Past experiences and/or achievements related to engineering</li> <li>• Your aspirations upon completing an engineering course</li> </ul>

\*Applied Learning Modules (ApLMs) are conducted in the same way as all our regular diplomas. The programme helps secondary school students make informed decisions about education and career plans after their graduations.

For more information, visit <https://www.rp.edu.sg/teachers/APLMS>