Since the establishment of the Anatomy School in 1716, cadaveric dissection has been the mainstay of anatomy teaching in Cambridge. However, identification of different learning styles in the past decades has led educators to advocate using a variety of teaching methods to accommodate the diverse ways in which students absorb and process information. This study aims to evaluate the benefits of the multisensory approach adopted in our dissection programme. Responses from 175 first-year students who rated 8 components of the course on a 5-point Likert scale were analysed, with a score of ≥4 indicating perceived benefit. Students rated all learning modalities positively, with an average score of 4.08. High scores were given for combined visuo-auditory learning, including mini-tutorials on prosections (4.77) and dissection guidance from demonstrators (4.23). Students also valued self-directed kinaesthetic learning through hands-on cadaveric dissection (4.48), use of a demonstration body (4.23), and articulated skeletons (4.21). Visual-only information on charts and posters attracted lower scores (3.92), as did read/write modalities such as recording variations (3.43) and note-taking at lectures (3.40). In conclusion, a multisensory approach enables students to benefit from different course elements, while the effectiveness and value of traditional cadaveric dissection in anatomy teaching remain undiminished.